



# 2019-2020 Annual Report

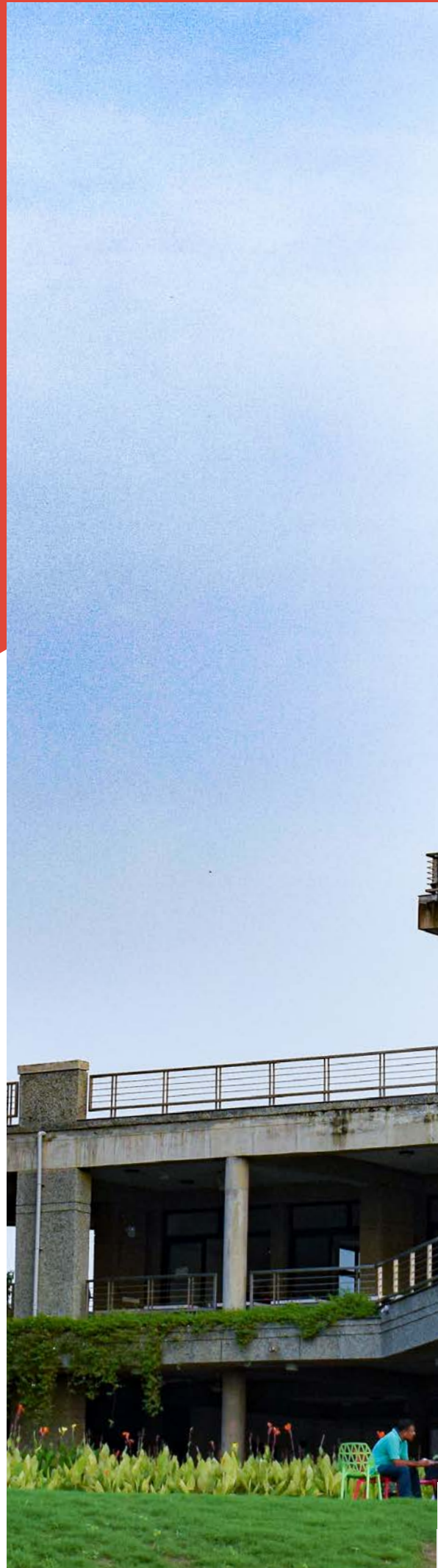
IIT GANDHINAGAR

**IIT Gandhinagar is committed to a holistic approach to education in engineering disciplines and beyond, cutting-edge research addressing global challenges, and giving back.**

IIT Gandhinagar was founded in 2008 and is located in Palaj, Gandhinagar, Gujarat on the banks of river Sabarmati. IITGN is rated India's first 5-star GRIHA LD (Green) campus for minimising the negative impact on the environment.



# Annual Report **2019-2020**







## TABLE OF CONTENTS

From the Director's Desk	6
Academics	8
Research & Faculty Activities	38
Infrastructure and Facilities	72
Student Affairs	86
Staff Activities	108
Outreach Activities	110
External Relations	118
Support for the Institute	122
Organisation	132



# VISION MISSION AND VALUES

## CORE FEATURES

- » A safe and peaceful environment
- » Relevant and responsive to the changing needs of our students and the society
- » Academic autonomy and flexibility
- » Research Ambiance
- » Nature of faculty and students:
  - Faculty recruiting norms are much higher than most of the academic institutes in India
  - Students are inducted strictly on a merit basis
- » Sustainable and all-inclusive growth, including community outreach programmes
- » Infrastructure: Liberal funding to the laboratory facilities and amenities to make them comparable to those best in the world
- » Administration: Exclusive concern of IIT Gandhinagar, and handled internally
  - Director given adequate powers to manage most academic, administrative and financial issues (within the framework)
- » Residential Campus:
  - Leads to closer academic and social interaction between students and faculty
  - Develops stronger community spirit and provides opportunity to learn from each other
  - Sustained academic ambiance resulting in higher creativity from everyone.

## PRINCIPLES

- » Lifelong commitment to learning
- » Encouragement of merit
- » Passion and motivation for work
- » Professionalism
- » Respect for law
- » Concern for the improvement of the society
- » Transparency in functioning of the Institute
- » Dedication to the Institute

## VALUES

- » Meritocracy
- » Unparalleled quality and excellence
- » Honesty, Integrity, Sincerity and Devotion
- » Trust and freedom with accountability
- » Appreciation and celebration of creativity
- » Willingness to try new ideas and make mistakes
- » Social and Moral responsibility
- » Respect for every individual, and diversity
- » Co-operation, Collaboration and Team Work

## MISSION

IIT Gandhinagar, as an institution for higher learning in science, technology and related fields, aspires to develop top-notch scientists, engineers, leaders and entrepreneurs to meet the needs of the society-now and in the future. Furthermore, in this land of Gandhiji, with his spirit of high work ethic and service to the society, IIT Gandhinagar seeks to undertake ground breaking research, and develop breakthrough products that will improve everyday lives of our communities.





## GOALS

- » To build and develop a world-class institution for creating and imparting knowledge at the undergraduate, post graduate and doctoral levels, contributing to the development of the nation and the humanity at large.
- » To develop leaders with vision, creative thinking, social awareness and respect for our values.
- » To foster excellence in teaching and research to make a global impact.
- » To engage in path-breaking research that would influence national policies.
- » To pursue sustainable technological solutions to societal problems.
- » To focus on lean engineering solutions for sustainable development.
- » To be the leader for academic and industrial collaborations in various disciplines, nationally and internationally.
- » To create awareness of the true significance of learning and teaching.
- » To enrich local schools and communities through value-added interactions.
- » To encourage excellent language skills as part of the institutional culture.
- » To prepare students not just for their first job, but their last job as well.

## VISION

- » To shape IIT Gandhinagar into an exciting place for learning, teaching and research.
- » To establish a process of learning that is free, fulfilling and enjoyable experience.
- » To provide an enabling environment to nurture critical and creative minds, and to propel them to greater heights of excellence in their pursuits.
- » To create a vibrant atmosphere that breeds front runner innovators, scientists, engineers, entrepreneurs, academicians and thinkers of tomorrow.
- » To provide opportunity for students to learn from wherever, however and whatever they choose to study.
- » To make IIT Gandhinagar the preferred destination for future generations of students, staff and faculty.

FROM THE

# DIRECTOR'S DESK

SUDHIR K JAIN, PROFESSOR & DIRECTOR, IIT GANDHINAGAR

By all measures, this year has been an unusual and thought-provoking one. We wrapped up in the face of a possibly multi-year global pandemic that is compelling us to revisit the fundamentals of how we think about our most routine affairs. Meanwhile, we have had an eventful year even without counting our response to the crisis.

On the academic front, in a pre-COVID move, we adopted a scheme for formally incorporating online classes into the curriculum. Massive Open Online Courses (MOOCs), which make university courses available to thousands of students, are disruptive, technology-driven learning platforms that are challenging traditional educational models. With the ability to reach a large number of learners around the world, MOOCs have made a visible and largely positive impact on open education. Allowing students to learn via these platforms and get credit for it opens up the opportunity for new ways for students to access knowledge and develop their skills. Students can now earn a limited number of credits by choosing to do online courses from a carefully curated catalog.

We also announced the launch of a major project on the history of Indian mathematics with the support of a major grant by Infosys Co-founder Mr Kris Gopalakrishnan. This project aims to broaden global awareness and understanding of the wide-ranging and seminal Indian contributions to number systems, geometry, algebra, trigonometry, and algorithmic methods. IIT Gandhinagar established the Smt Amba & Sri V S Sastry Distinguished Visiting Chair - under this chair, an active distinguished academic of international stature from the field of science, engineering, or humanities, will be invited to spend at least a month at IITGN for lectures, interactions,

and research collaborations. Shri N R Narayana Murthy, co-founder of Infosys has established Rama Rao Chair at IITGN. The chair is open to faculty members in the disciplines of Computer Science and Engineering, Electrical Engineering, Mathematics, and Physics at IITGN. We also partnered with Gujarat Council on Science and Technology (GUJCOST) to establish Vikram Sarabhai Chair at IIT Gandhinagar to promote academic and research activities in emerging areas of Science & Technology.

On the research front, we continue to expand our core infrastructure. Major equipment installed includes the Transmission Electron Microscope or TEM (Themis 300 G3), the X-ray Diffractometer (Rigaku SmartLab 9kW), and the Bilateral endpoint robotics manipulandum (Bikin Technologies). Further, the Central Public Works Department (CPWD) has set up a Research & Development Cell at the Research Park of IIT Gandhinagar to find efficient solutions to the real problems faced on the field by the construction industry.

At the start of this calendar year, we found ourselves amidst a global pandemic, which is now turning out to be perhaps the most challenging time that humanity has experienced in the last 100 years. Early into the crisis, we restructured the academic calendar, updated the grading schemes, and moved to fully virtual offerings of our regular courses. We also constituted a Crisis Management Group for Covid-19, which is coordinating the Institutional response. The crisis has also unleashed a new spirit of voluntarism and community on our campus. A Special Volunteer Force of students, faculty, staff, and other community members aided various support services. Student and staff volunteers delivered





critical supplies to senior citizens at their homes during the lockdown. These collective efforts allowed us to adopt a flexible approach to students residing on campus, and to this day, students who have wanted to continue their stay on campus have been able to do so.

Beyond surviving the pandemic, we turned to aspiration. During the national lockdown, IIT Gandhinagar launched Project Isaac to encourage students to remain engaged during the early days of forced confinement caused by Coronavirus to engage in interesting activities. Nearly 60% of our student population registered voluntarily in the leadership, coding, and writing challenges launched under this project.

IITGN has long been at the forefront of construction workers' welfare and worked actively on the ground to ensure their well-being, health, and safety through the times of the

pandemic. During the lockdown, proactive efforts were made towards educating the approximately 800 construction workers and their families on social distancing and other precautions, as well as providing medical support, masks, disinfecting services, etc. The community services also ensured the timely delivery of rations and essential supplies during the national lockdown.

Disruptive and stressful as the Covid-19 crisis has been for us both as individuals and as a community, there was never a doubt in my mind that at IITGN we are resilient enough to rise to its challenges. Responses from all quarters in meeting the challenges posed by the pandemic have been exemplary. I am confident that rising levels of voluntarism, the deepening engagement with social issues, will be an enduring legacy that will shape our personal bonds and social commitments in the decades to come.

Prof Sudhir K Jain  
Director

# ACADEMICS

## PROGRAMMES OFFERED

### BTECH

Chemical Engineering | Civil Engineering | Computer Science and Engineering | Electrical Engineering | Materials Engineering | Mechanical Engineering

### MSc

Chemistry | Cognitive Science | Mathematics | Physics

### MA

Society and Culture

### MTECH / PGDIIT

Biological Engineering | Chemical Engineering | Civil Engineering | Computer Science and Engineering | Earth System Science | Electrical Engineering | Materials Science and Engineering | Mechanical Engineering

### PHD

Biological Engineering | Chemical Engineering | Chemistry | Civil Engineering | Cognitive Science | Computer Science and Engineering | Earth Sciences | Electrical Engineering | Humanities & Social Sciences | Materials Engineering | Mathematics | Mechanical Engineering | Physics

## INNOVATIVE CURRICULUM AND ACTIVE LEARNING

Award winning curriculum, project based learning, creativity, entrepreneurship, encouraged emphasis on design, humanities, and life sciences to promote out-of-the box and non-linear thinking.

- **40%** of UG and **77%** of PhD students receive international exposure
- Increasing emphasis on learning-by-doing and active learning
- Tinkerer's Lab for fearless experimentation
- Programmes such as Invent@IITGN to promote innovations and inventions
- Major gift received for establishing Maker Bhavan
- Freedom, flexibility, autonomy and support to try out new pedagogical approaches

*Apart from the mentioned programmes, a Dual Major BTech Programme, a BTech- MTech Dual Degree and a BTech-MSc dual degree are also offered.*

## DUAL MAJOR BTECH PROGRAMME

– where a student can graduate with degrees in two disciplines

## BTECH - MTECH DUAL DEGREE

– which enables a student to graduate with both BTech and MTech degrees in five years

## BTECH - MSc DUAL DEGREE

– which enables a student to graduate with both BTech and MSc degrees in five years

## NON DEGREE PROGRAMME

– A student who is registered for a degree in a recognised institute or university in India or abroad, and who is officially sponsored by that institute or university to complete part of his/her academic requirements at IITGN, can apply for admission to IITGN as a non degree student



# MAJOR DEVELOPMENTS



## EAT RIGHT CAMPUS AWARD

IITGN became the first educational institute in the country to receive the Eat Right Campus Award with a 5-star rating from the Food Safety and Standards Authority of India (FSSAI). The award was presented at a function held in FDA Bhawan, New Delhi, on June 7, 2019. The Institute is certified as 'Eat Right Campus' based on five parameters. These are - a) compliance to food safety and hygiene, b) healthy diets, c) food waste management, d) promotion of local and seasonal foods on campus, and e) promotion and awareness of food safety and healthy diets in and around campus.

## PROF SUDHIR JAIN REAPPOINTED AS DIRECTOR

**Prof Sudhir K Jain**, the founding director of IITGN, has been reappointed for a third term. His appointment for the next five years was approved by the President of India. Prof Jain was on the faculty of IIT Kanpur for 35 years from 1984-2019 and is an internationally reputed scholar of earthquake engineering. He served as President of the International Association for Earthquake Engineering from 2014-18, was elected Fellow of the Indian National Academy of Engineering in 2003, and was conferred Life Membership by the New Zealand Society for Earthquake Engineering (NZSEE) in 2013.

## IITGN RANKED AMONG THE WORLD'S TOP 600 INSTITUTIONS

IITGN has been ranked among the top 600 educational institutes worldwide and has been ranked 7th in India according to the 2020 *Times Higher Education* (THE) World University Rankings. This year, THE World University Rankings ranked 1,396 institutions from 92 countries on 13 performance indicators that includes teaching, research, knowledge transfer, and international outlook. IITGN, an 11-year-old institution, entered the global rankings for the first time this year in the 501-600 band worldwide.

## SWACHH CAMPUS RANKINGS

IITGN has been ranked among India's cleanest universities by the Ministry of Human Resource and Development at the third Swachhata Ranking Award ceremony in Delhi. The Institute was ranked 4th in the category of 'Residential University – AICTE' in MHRD's annual Swachh Campus Ranking 2019 for Higher Educational Institutions. The Swachh Campus rankings evaluate higher-education institutions on a wide range of hygiene and environmental parameters such as student-toilet ratio, hostel, and residential cleanliness, waste disposal, water harvesting and conservation, renewable energy use, campus greenery, etc.



## UNION HRD MINISTER VISITS IITGN

Union Minister of Human Resource Development, **Dr Ramesh Pokhriyal 'Nishank'** visited IITGN on Nov 10, 2019. During his visit, Dr Pokhriyal held a meeting with **Prof Sudhir K Jain**, Director, IITGN, and other faculty members of the Institute.



## PADMA SHRI TO PROF JAIN

**Prof Sudhir K Jain**, Director, IITGN was awarded the **Padma Shri** for the year 2020 at this year's Republic Day, for his distinguished service in the field of Science and Engineering. Prof Jain is an internationally acclaimed expert in earthquake engineering. Under his dynamic and visionary leadership as the founding director, IITGN has developed a global reputation for its academic innovations, interdisciplinarity, emphasis on the liberal arts and globalisation. To celebrate this momentous achievement, the institute had organised a felicitation ceremony in his honour on Feb 22, 2020.

# SIGNIFICANT ACTIVITIES



## INVENT@IITGN

IITGN hosted the 2nd edition of Invent@IITGN, a 6-week summer programme in inventing, from May 16 to June 28, 2019. Cooper Union Professors, **Alan Wolf** and **Eric Lima**, along with IITGN's Professors **Vineet Vashista**, **Nithin George**, and **Madhu Vadali**, mentored a total of 28 participants, who were selected from nine IITs across the country including IIT Bombay, IIT Dhanbad, IIT Dharwad, IIT Gandhinagar, IIT Goa, IIT Guwahati, IIT Kharagpur, IIT Madras, and IIT Palakkad. The students developed solutions for real-life problems or societal needs, with inventions such as robot arm, a wound care device, emergency food aid and so on. **Parul Sangwan**

and **Prabal Vashisht** from IIT Palakkad won the title of '**Best Invention**' for their household mechanical solar tracker, **R Nambilakshmi** from IIT Bombay and **Prathmesh Deshmukh** from IIT Kharagpur secured the title of the '**Second Best Invention**' for designing a leak-proof eco-friendly takeaway container, and the prize for the '**Third Best Invention**' was received by two IIT Kharagpur students namely, **Kalash Nibjiya** and **Samruddhi Pataskar** for developing spout it- a clip-on for pouring liquids easily. All 14 teams filed provisional patent applications in India and will file their provisional US patent application later.

## MoU WITH CPWD

IITGN and the Central Public Works Department (CPWD) have entered into an agreement to collaborate for cutting-edge research & development in the housing and urban development sector. As per the MoU, the CPWD has set up an R&D Cell at the Research Park of IITGN. This significant partnership is aimed at fostering collaboration between seasoned engineers of CPWD, faculty and students of IITGN, to enable development and verification of new technologies, and safer, efficient, long-term solutions to the existing problems of the construction industry.





## GLOBAL COLLABORATIONS WITH SPARC PROJECTS

The Ministry of Human Resource Development (MHRD), Government of India, has approved 13 IITGN international research projects worth Rs 7.93 crore, as part of the 'Scheme for Promotion of Academic and Research Collaboration' (SPARC). Enlarging its global footprint, the Institute will collaborate with faculty and researchers in ten international institutions in seven countries, namely France, USA, New Zealand, South Africa, Israel, Canada, and Australia. These research projects bring together IITGN faculty and world-class scholars to work on fundamental, action-oriented and innovation-driven research in emerging areas of impact.

## NEW COMPANIES IN RESEARCH PARK

Optimized Solutions Ltd started its operations from the Research Park at IITGN from May 2019. The company works in the area of process development, optics and defense technologies.

## JEE OPEN HOUSE

This year IITGN organised the JEE Open House sessions in Delhi, Gandhinagar and Mumbai for the convenience of the aspiring students and their parents. The programmes aimed at addressing queries about admission, various disciplines, academic activities and opportunities at IITs, as well as about the IITGN ecosystem. The sessions in Delhi (on June 22, 2019) and Mumbai (on June 23, 2019) were conducted by **Prof Harish PM**, Dean of Student Affairs and **Prof Jaison Manjaly**, Coordinator of Alumni Relations, along with students and alumni of IITGN. The event at IITGN on June 23, 2019, included interactive sessions with faculty members, and students and alumni, and a campus tour.

## EARTH DAY CELEBRATION

The IITGN community celebrated the International Earth Day on Apr 22, 2019, by organising a number of activities to spread the message of "Save the Earth, Save the Environment" collectively. The celebrations included eco talks on various topics and a nature bazaar. A short film on green practices at IITGN was also released on the occasion. The event was coordinated by the Green Office, IITGN.

## RFID SYSTEM IMPLEMENTATION AT LIBRARY

An RFID System in the Central Library of the Institute went live on May 15, 2019. All Institute ID cards have been enabled to use the RFID system. Tasks such as the issuance and return of library books, tracking books, detecting non-issued books being taken out, inventory control, etc will now be easier and faster. Users would now be able to perform self checkout and check-in of library books by using a dedicated kiosk.

## SUMMER ENTREPRENEURSHIP PROGRAMME

IIEC (IIT Gandhinagar Innovation and Entrepreneurship Center) conducted a two-month long Summer Entrepreneurship Programme starting from May 14, 2019; in which students and entrepreneurs from various institutions and organisations worked on validating their ideas and learnt about entrepreneurship in a structured manner. They were provided access to the Tinkerer's Lab, co-working space, faculty members, and labs of IITGN to make a prototype. A total of 32 participants participated in the programme.

## SUMMER RESEARCH INTERNSHIP PROGRAM (SRIP)

A total of 144 students from various prestigious institutes across the country were selected for the Summer Research Internship Program (SRIP) to spend eight weeks carrying out their research at IITGN. The programme offers opportunities to students from India and abroad to carry out research projects under the mentorship of IITGN faculty members. This year 44 faculty members of the Institute guided the participating students on a wide range of research projects.





## STEM LEARNING WORKSHOP BY CCL

IITGN collaborated with Gujarat Council on Science & Technology (GUJCOST) to host 54 participants from all 27 Community Science Centres (CSCs) of Gujarat for an experiential STEM Learning workshop conducted by the Centre for Creative Learning (CCL), IITGN. The 5-day workshop started on May 21, 2019, with the aim of imparting science and math education to the participants in an interesting and engaging manner.



## INTERNATIONAL DAY OF YOGA

With an intention to raise awareness about the importance and benefits of yoga in our daily lives, IITGN celebrated the 5th International Day of Yoga on June 21, 2019 with a demonstration and practice of various yoga asanas, followed by a lecture on 'Relevance of Yoga in Everyday Life' by **Dr Shikha Saraogi**, a yoga expert.



## NEEV SUMMER TRAINING PROGRAMME

NEEV at IITGN organised an 8-week Summer Skill Courses programme from May 13 to July 5, 2019, to provide vocational skills training to the youth and women from the neighbourhood communities of IITGN. More than 100 trainees who participated in the programme were awarded certificates for various courses like vocational skills in wiring and CNC machining, computer skills, spoken English skills, hardware & networking skills, and stitching skills.

## NYASA SUMMER CAMP

Nyasa organised the 5th edition of its annual Summer Camp. The 10-day camp started from June 21, 2019, with some enchanting workshops like fun with CLI, dance, magic show, storytelling session, drama, and many more.

## 8TH CONVOCATION CEREMONY

The 8th Convocation Ceremony of the Institute was held on July 27, 2019. A total of 392 students graduated this year, including 144 BTech, 2 BTech-MTech Dual Degree, 1 BTech-MSc Dual Degree, 105 MTech, 85 MSc, 21 MA, 27 PhD, and 7 PGDIIT. A total of 25 students were awarded gold medals, 13 students were awarded silver medals, while 15 students were awarded medallion for excellence in various categories. **Dr Swati Piramal**, Vice-Chairperson, Piramal Group, and Director of Piramal Enterprises, was the Chief Guest on the occasion. She encouraged graduating students to dream big and aim for higher purpose in their life. Prof Amit Prashant, the then Officiating Director, IITGN, highlighted key initiatives and programmes by IITGN during the academic year 2018-19. He urged students to identify their true strengths and capabilities to focus on and get the best out of them.

**Aparna Tumkur** received the President's Gold Medal for BTech, **Kimti Manawa** received the President's Gold Medal for MTech, and **Rajes Ghosh** was awarded the President's Gold Medal for MSc and MA. The Director's Gold Medal for BTech went to **Anusha Kamath**, Director's Gold Medal for MTech was received by **Rasikh Nazir**, Director's Gold Medal for PhD was awarded to **Ankita Arora**, and Director's Gold Medal for MSc and MA went to **Rajes Ghosh**.





## FOUNDATION PROGRAMME

IITGN's flagship 5-week Foundation Program kick-started on July 22, 2019, for the BTech batch of 2019. The programme included many exciting events and activities like improvisational theatre workshop, sketching, dance, sessions with IITGN-CCL, fun with grammar, sessions on self-defence, cleanliness drive, conflict resolution, paper engineering, voice personality, design workshop, mental health workshop, juggling, drum circle, and many more. The programme concluded with Intramural, a sports event, and Eureka, a cultural evening organised by the freshers. **Prof Ambika Aiyadurai, Prof Himanshu Shekhar, Prof Manasi Kanetkar, Prof Mayank Singh, Prof Prasanna Venkatesh, and Prof Udit Bhatia** were the coordinators for the programme.



## TOWN HALL WITH NEW JERSEY GOVERNOR PHIL MURPHY

New Jersey **Governor Phil Murphy** visited IITGN on Sep 21, 2019, and participated in a Town Hall and a Q&A with IITGN students and the community. Gov Murphy, who was on a week-long trade mission to India, was accompanied by his wife, **First Lady Tammy Murphy**, and a trade and educational delegation. IITGN exchanged MoUs with four New Jersey public universities, including New Jersey Institute of Technology, New Jersey City University, Rutgers University and Rowan University on the occasion.

## BOEING BUILD PROGRAMME

IIT Gandhinagar Innovation and Entrepreneurship Center (IIEC) partnered with Boeing India to implement BUILD (Boeing's University Innovation Leadership Development) programme. For this, IIEC conducted a 5-day bootcamp for students and early stage startups during Aug 2-6, 2019. 12 student teams and early stage startups from Gujarat, Madhya Pradesh, and Rajasthan were exposed to different aspects of startup such as design thinking, defining value proposition, business model canvas, startup life cycle, and entrepreneurial finance. The programme ended with a regional pitching competition on Aug 7, 2019.



## ADVISORY COUNCIL MEETING

The 3rd meeting of the Advisory Council for IIT Gandhinagar Innovation and Entrepreneurship Center (IIEC) and Research Park took place on Aug 13, 2019. The external members who attended the meeting include: **Mr Kris Gopalakrishnan, Mr Maulik Jasubhai, Mr Vijay Kumar Ivaturi, Mr Anand Parekh, and Mr Sanjay Randhar.**

## DST-FIST MEETING

IITGN hosted a DST-FIST- Earth and Atmospheric Sciences meeting on Aug 23, 2019.

## HINDI DIWAS

IITGN celebrated 'Hindi Diwas' on Sep 14, 2019, to mark the significance of Hindi as an official language of the country. IITGN community members across students, faculty, staff and their family members participated in the event in large numbers.

## FLY-SCHOLAR PROGRAMME

About 52 students of IITGN learnt 5 essential non-cognitive skills of conscientiousness, innovativeness, taking initiative, perseverance, and problem-solving, during the 2-day FLY (Finding the Leader in You)-Scholar programme held at the Institute on Sep 14-15, 2019. The programme was organised by the Competitiveness Mindset Institute (CMI), a non-profit, education and research institute in the USA.

## EXPLORER FELLOWSHIP OPEN HOUSE

Explorer Fellowship at IITGN is a unique annual summer programme which allows its students to discover India's cultural diversity by exploring the length and breadth of the country on a very limited budget. This year, a total of 84 students in 27 different teams undertook the fellowship. The students shared their experiences through short video-documentaries on Sep 21, 2019.

## SEMINAR SERIES ON INDIAN SCIENTISTS

IITGN has launched a Seminar Series on Indian Scientists to honour the contributions of pioneers of modern Indian science, who are often half-forgotten. The first edition of this bi-annual event was held on Oct 5, 2019. Eminent scholars delivered four lectures on the lives and works of Satyendranath Bose, Meghnad Saha, G N Ramachandran, and Prafulla Chandra Roy. The event was coordinated by **Prof Sudipta Sarkar** and **Prof Michel Danino.**





## INDIA KI KHOJ

IITGN's week-long cultural immersion programme, India Ki Khoj, engrossed 22 students from the California Institute of Technology (Caltech) and IITGN, to understand and appreciate multiple facets of India. The 8th edition of the programme was conducted from Dec 16 to 22, 2019. **Dr Rajmohan Gandhi** delivered the inaugural lecture. The event was coordinated by **Prof Mona Mehta** and **Prof Jaison Manjaly**.



## INDUSTRY CONCLAVE

The 2nd edition of Industry Conclave, 'Connections 2019: Creating Opportunity to Stimulate Industry-Academia Partnerships', was organised on Nov 9, 2019. **Mr Kris Gopalakrishnan** (co-founder Infosys), Chairman of the Advisory Council of the Research Park and the IIEC chaired

the programme. More than 70 participants from over 50 different industries from across the country participated in the programme. A startup pitching and networking programme was also organised as a part of the event.

## PROJECT ISAAC DURING COVID-19

IITGN launched 'Project Isaac' to engage its students in creative projects to enhance their critical skills while they were confined to their rooms or homes during the Covid-19 crisis. The project is inspired by Sir Isaac Newton, who faced a similar situation during the Great Plague of London in 1665. Under this project, IITGN has introduced several exciting contests around leadership, coding, programming, research, innovation, creative expression and writing, with prizes and rewards for its students as well as alumni, faculty and staff. Nearly 60% of the student body participated in these voluntary projects.



## 9TH ACADEMIC ADVISORY COUNCIL

The Institute organised its 9th Academic Advisory Council (AAC) on Jan 3, 2020, hosting eminent scholars and academicians from around the world. The Council focused on strategies for effective faculty service towards institution building, advancing faculty and staff development, promoting research among non-PhD students, and examining the need to adopt a general education component in the curriculum.

## 10TH LEADERSHIP CONCLAVE

IITGN's 10th Leadership Conclave held on Jan 4, 2020 focused on devising a comprehensive strategy for "IITGN Next", ways to sustain and build upon its distinctive culture, strategizing to deal with unexpected challenges, and approaches to scale-up fundraising. The conclave brought together eminent thinkers and industry experts from India and overseas.





## IITGN'S RESPONSE TO COVID-19 CRISIS

IITGN took several measures to deal with the COVID-19 crisis and to ensure the safety and wellbeing of its entire community. The Institute formed a five-member Crisis Management Group (**Prof Harish P M**, Chair) to continuously monitor the evolving situation and recommend necessary steps. An entirely student-run 24x7 Control Room was set up at the Institute to facilitate queries and provide support. A Special Volunteer Force (**Prof Arnab Saha**, Coordinator) was formed with enthusiastic community participation to provide support for various essential services on campus. IITGN constituted Shramik Kalyan Samiti (**Prof Gaurav Srivastava**, Chair) to address the challenges faced by our construction workers.

## TEM FACILITY AT IITGN

IITGN is now equipped with a Transmission Electron Microscopy (TEM) facility. The state-of-the-art facility was inaugurated on Feb 25, 2020. The facility is one of its kind in Gujarat and among a handful such in the country. IITGN successfully established this special lab independently in less than 8 months under the leadership of **Prof Abhay Gautam**.

## CPWD R&D CELL AT IITGN

The Central Public Works Department (CPWD) has set up a Research & Development (R&D) Cell at the Research Park of IITGN, to develop efficient solutions to problems faced by the construction industry. IITGN and CPWD will collaborate on various academic, training and capacity building programmes that will enable CPWD to become technologically more advanced to address practical problems faced on the field.

## IIEC HOSTING MSME GRANTS

IIT Gandhinagar Innovation and Entrepreneurship Center (IIEC) has been recognised as a host institute to implement the entrepreneurship support programme by the Ministry of Micro, Small and Medium Enterprises (MSME), Govt. of India. As per the programme, a startup recommended by the host institute can get grant funding of up to Rs 15 lakhs.

## FINANCIAL AID FOR UG/PG STUDENTS

From the academic year 2020-21, all undergraduate and postgraduate students at IITGN with an annual parental income of less than Rs 2.5 lakhs shall be provided with full tuition fee support by the Institute through its endowment funds.



## CLAY STUDIO AT IITGN

A Clay Studio has been set up in the student hostel area on Mar 7, 2020. The studio is equipped with modern facilities and equipment and will enable anyone from the Institute to unleash their creativity using potter wheels, kiln, glazing materials, clay carving tools, and other raw materials.



## REPUBLIC DAY

IITGN celebrated the 71st Republic Day with patriotism and grandeur. The celebrations started with flag hoisting, singing of the national anthem and the Director's address to the community. This was followed by distribution of awards in various categories, cultural performances, felicitation of the students on the Dean's list and a tree plantation drive. The Faculty Excellence Awards were conferred upon **Prof Atul Dixit** for Excellence in Teaching, **Prof Arnab Dutta** for Excellence in Research, **Prof Gaurav Srivastava** for Excellence in Institution Building, and **Prof Neeldhara Misra** for Excellence in Outreach Activities. The following staff members were awarded the Staff Excellence Award: **Shri Krishan Bihman, Anand Pandey, Supin Gopi, Manubhai Chaudhari, Gaurav Kumar Singh, Hareshkumar Chaudhari, Rajnikant Patani, Parikshit Solanki, and Dinesh V Solanki**. Recipients of the Campus Development Awards were: **B V Puvar, Nupur Tandon, Soumya Harish, Dinesh Parmar, Nikulkumar Pravinsinh Bihola, Hardik Patel, and Prem Singh Airi**. The Institute also presented awards to winners of the Inter-IIT Staff Sports Meet 2019.

## SEMESTER COURSE ON 'THE ANCIENT IDEA OF INDIA'

The 4th edition of IITGN's unique semester elective course, Introduction to Indian Knowledge Systems (IKS), offered by the Humanities and Social Sciences discipline, started from Jan 2020. The theme for this year was 'The Ancient Idea of India', which offered a wide-ranging introduction to ancient India's intellectual, scientific and artistic knowledge traditions, and early Indian society. Eight eminent scholars from various parts of India and abroad collectively taught the course along with course coordinators **Prof Michel Danino** and **Mana Shah** from IITGN.

## PHASE 2020

An Indo-UK workshop on Photonics for Health, Atmosphere, Safety and Education (PHASE 2020) was held at IITGN from Jan 10-14, 2020. A total of 13 international experts mentored the participants throughout the workshop to carry out short time-bound projects using state-of-the-art optical technologies. The workshop was sponsored by the Royal Academy of Engineering, UK, and was jointly organised by **Dr Arup Lal Chakraborty** (IITGN), **Prof Ken Grattan** (City University London) and **Dr Ralf Bauer** (University of

Strathclyde, Glasgow). Workshop participants learnt world-class optical sensing, imaging research and the impact of light-based technologies through hands-on sessions with international experts in the Photonic Sensors Lab at IITGN.

## CAN 2020

IITGN and Gujarat Ecological Education and Research (GEER) Foundation, Gandhinagar, jointly organised a mega workshop series on Climate Change titled '**Climate Action Now (CAN)**' 2020. The workshop series was inaugurated on Feb 11, 2020 by **Shri S J Haider**, IAS, Principal Secretary, Climate Change Department, Government of Gujarat. This was followed by two 2-day workshops on Feb 13-14 and Feb 27-28, 2020, on the theme 'Climate Policy and Governance'. The first segment of the series was coordinated in Feb 2020 by **Prof C N Pandey**, with more than 300 participants. CAN 2020 workshop series was planned on three theme-based segments namely, 1) Climate Change Policy and Governance (during Feb 2020), 2) Climate Action and Role of Industry (during Mar 2020), and 3) Climate Change Research And Technology Development (during Apr 2020). The second and third segments had to be postponed due to the global pandemic.

## IITGN RESEARCHERS CONTRIBUTED TO THE LIGO DISCOVERY OF THE HEAVIEST BINARY NEUTRON STAR SYSTEM

A team of researchers at IITGN have made a significant contribution to the LIGO discovery of the heaviest binary neutron star system GW190425. The results of this discovery were announced and presented at the 235th meeting of the American Astronomical Society in Honolulu, Hawaii. The team at IITGN led by **Prof Anand Sengupta**, Assistant Professor, Physics, included **Soumen Roy**, a PhD student in Physics discipline, and **Nilay Thakor**, a BTech student (batch of 2013). The team provided a highly optimised template bank for both the online and offline search pipelines, a key component of the search which led to this discovery.

## 2ND SUSTAINABILITY FAIR

The Dr Kiran C Patel Centre for Sustainable Development at IITGN hosted its 2nd Annual Sustainability Fair on Feb 28, 2020. The event had nearly 30 exhibitors, including government agencies, NGOs, welfare organisations, and industry leaders from across the country who showcased a wide range of sustainable development practices, projects, products and services. The event featured three keynote talks by **Mr Kartikeya Sarabhai**, Founder & Director, CEE; **Dr Ratan Chand Jain**, Ex-Chairman, Central Groundwater Board; and **Mr Sarbjit Singh Sahota**, Emergency Specialist, Disaster Risk Reduction Section, UNICEF India.

## FUTURE FACULTY INITIATIVE

As a part of the Future Faculty Initiative at IITGN, the Career Development Services (CDS) of the Institute organised a series of workshops called Navigating the Faculty Application Process. Two sessions were conducted under this series in Feb 2020 by **Prof Himanshu Shekhar**. The workshops were initiated for mentoring the Institute's postgraduate students and postdoctoral fellows towards building an academic career.





## ADVISORY COUNCIL OF IIEC AND RESEARCH PARK

The 4th meeting of the Advisory Council for IIEC and Research Park took place on Mar 5, 2020. Illustrious members who participated in the meeting included **Mr Kris Gopalakrishnan, Mr Ajai Chowdhry, Ms Soumya Rajan, Mr R Gopalakrishnan, Mr Vijaya K Ivaturi, Mr Sajnay Randhar, Mr Anand Parekh,** and **Mr Kunal Upadhyay.**

## IDE 2.0

IIEC and EII had conducted Innovation Driven Entrepreneurship (IDE) 2.0 during the winter vacation of the Institute. Out of a total of 27 teams who had submitted their ideas to a panel comprising **Prof Nithin George, Prof Madhu Vadali, Mr Nirmal Jha** and **Mr Abhishek Kandoi**, five teams were shortlisted in the final round to attend a boot-camp at Bangalore from Mar 9-14, 2020. The teams visited a number of R&D centres of companies & incubators, and interacted with some leading entrepreneurs during the programme.

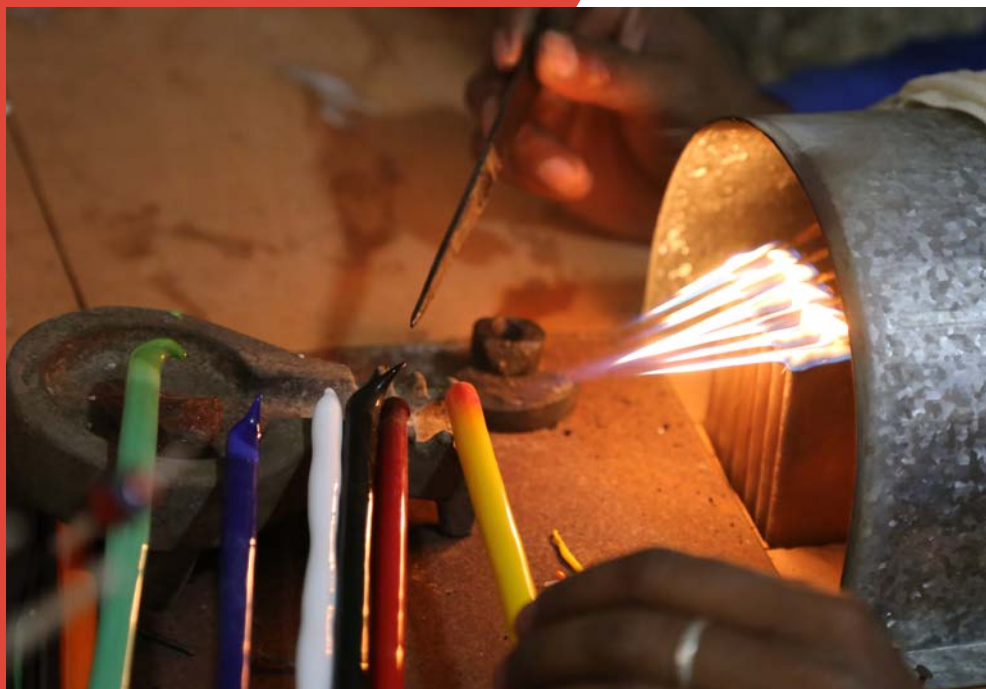
## TEQIP-III

**TEQIP-III** project at IITGN entered its third phase in Dec 2017 and started to work with the local engineering colleges. This Technical Education Quality Improvement Programme (TEQIP) has conducted various short courses and workshops for faculty, students, and administrative staff as well. During this year 2019-20, nine such programs were held at IITGN. More than 300 faculty members/students/staff from different engineering colleges across the country participated in the programmes to learn about Advanced Pedagogy, Digital Tools of Learning and other important subjects.

The topics of discussions included Technology-enhanced Learnings like Applied Digital Signal Processing, Electrical Machines & Power Electronics, Thermodynamics, Hands-on training on Special Electrical Machines and Drives and Data Science & Analytics. Faculty members of IITGN interacted with the participants of these activities while introducing new concepts and pedagogy for effective learning. A programme for staff of TEQIP colleges was conducted focusing on Leadership, RTI, Office Procedures and Purchase Procedures. It was very useful for them to understand the recent working procedures in an efficient manner.



# CENTRES



## ARCHAEOLOGICAL SCIENCES CENTRE

The Archaeological Sciences Centre (ASC) was constituted in Dec 2012 with the twin objective of establishing at IITGN state-of-the-art facilities to be used by the archaeological community at large and conducting its own research in scientific and technological aspects of archaeology. It thus situates itself at the intersection of humanities and scientific disciplines.

### CENTRE'S PROJECTS

The Centre completed a **3D drone mapping** of the entire Harappan site of Dholavira in the Rann of Kutch, as part of a project funded by **Archaeological Survey of India (ASI)**. The drones used three sensors for normal light, infrared and laser (LiDAR). The Centre submitted its report to ASI.

- **Prof Sharada C V** initiated two projects, **Multi-element isotopic investigations to reconstruct human-animal interactions at the Indus Civilization site of Dholavira, Gujarat, India, and Dholavira worked bone assemblage: a study of its typology, technology, experimental reproduction and digitization**. Prof Sharada conducted preliminary investigations of bone collections at several ASI offices and sites.
- **Dr Ruman Banerjee**, Post-Doctoral Fellow at the Centre, completed his project of stone tools excavated at Dholavira: **Investigations into Dholavira Rohri Chert Materials**.
- **Dr Oishi Roy**, Post-Doctoral Fellow at the Centre, completed her project on the beginnings of iron metallurgy in eastern Maharashtra: **A Study on the Iron Artefacts from the Megalithic Sites of Dhamna Linga and Dhaulameti of Vidarbha**.

### COLLABORATIVE RESEARCH PROJECTS

- As part of a larger IMPRINT project, **Cultural Heritage Preservation and Restoration using Digital 3D Models**, a team of PhD students under the supervision of **Prof Shanmaganathan Raman** and **Prof Michel Danino** started 3D laser scans of archaeological artifacts from Lothal and Dholavira museums between Dec 2019 and Mar 2020. Such collections of 3D scans will have multiple applications, especially in research, documentation and education.
- **Dr Ajit Singh**, Post-Doctoral Fellow in Earth Sciences and Archaeological Sciences, completed his project on **Morphodynamics of Markanda River using Chronology and Sediment Provenance of Fluvial Terraces near Harappan Sites in Northwest India** in collaboration with **Profs Vikrant Jain, Michel Danino and VN Prabhakar**.
- **Prof Alok Kanungo**, IITGN, is collaborating with **Dr Laure Dussubieux**, Field Museum, Chicago, in a project, **Traditional Glass-making in India: Rediscovering the Manufacturing of Reh Glass**, funded for 2021-2022 by Negaunee Foundation, Field Museum.
- **Prof Vikrant Jain**, IITGN, in collaboration with **Prof Jyotiranjana Ray**, Physical Research Laboratory, **Profs Vimal Mishra, Amit Prashant, Saptarshi Dey, and V N Prabhakar**, IITGN, have initiated on a project titled **Impact of Sea-level Fluctuations, Climate Change or Tectonic Activity on the Decline of the Harappan Settlement of Dholavira, Kutch, India**. The project, funded by the Department of Science and Technology under the Science & Heritage Research Initiative (SHRI) funding programme, aims to understand whether and to what extent, the sea/

base level changed during the existence of the Harappan city of Dholavira (Rann of Kutch). It will also study the impact of tectonics on Dholavira's vicinity and of seismic activity on the city's evolution. Besides these possible factors, it will look at evidence of the impact of climate change (with the monsoon weakening ~ 4 ka) on the decline and abandonment of Dholavira.

## PUBLICATIONS

### BOOK CHAPTERS

- 2019. V N Prabhakar. **The Preservation of Rock-cut Structures of Western Maharashtra and Conservation Challenges**, in *Historical and Archaeological Heritage Management and Cultural Tourism in India and Japan: Issues and Prospects for Development*, V Selvakumar & Manabu Koiso (eds) Thanjavur: Tamil University & Kobe: Kobe Yamate University, 193–219.
- 2019. M Danino. **The Mahabharata's Sociocultural Impact on India**, in *The Mahabharata: Its Antiquity, Historicity and Impact on Society*, Neera Misra & Vinay Kumar Gupta (eds) New Delhi: Research India Press, 156–162.
- 2020. V N Prabhakar. **Understanding the Burial Practices and Disposal of Dead of the Harappans during the Urban Phase in the Greater Indus Valley (c 2600-1900 BCE)**, in *The Archaeology of Burials: Examples from Indian Subcontinent*, Rajesh S V, Abhayan G S, Ajit Kumar, Ehsan Rahmath Ilahi (eds) Delhi: New Bharatiya Book Corporation, 255–346.

### RESEARCH PAPERS

- 2019. A K Kanungo. **Chevron and Millefiorie in India**, *Journal of the Borneo International Beads* 5: 69–88.
- 2019. O Roy. **A Study on the Iron Artefacts from the Megalithic Sites of Dhamna Linga and Dhaulameti of Vidarbha**, *Heritage: Journal of Multidisciplinary Studies in Archaeology*, 7: 642–660.
- 2019. O Roy. **Evidence of Steel Making at Naikund and its Relationship with Mahurjhari, Borgaon and Khairwada, Maharashtra**, *Man and Environment*, XLIV(1): 12–20.
- 2019. M Danino. **Methodological issues in the Indo-European debate**, *Journal of Biosciences*, 44 (July): 44–68.

### MISCELLANEOUS WRITINGS

- 2019. A K Kanungo and M Trivedi. **History, Science and Technology of Ancient Indian Glass**, *Heritage: Journal of Multidisciplinary Studies in Archaeology*, 7: 1031–1050. Kerala, India. ISSN 23475463.
- 2019. A K Kanungo and M Trivedi. **Report on Conference cum Workshop on History, Science and Technology of Ancient Indian Glass**, held at IITGN, *Man and Environment*, 44(1): 114–116.
- 2019. M Danino. **Review of Contribution to the History of the Wheeled Vehicle in India by Jean Deloche**, in *Journal of the American Oriental Society*, Vol 139, no 3, July–Sep 2019, 768–769.

## EVENTS & VISITS

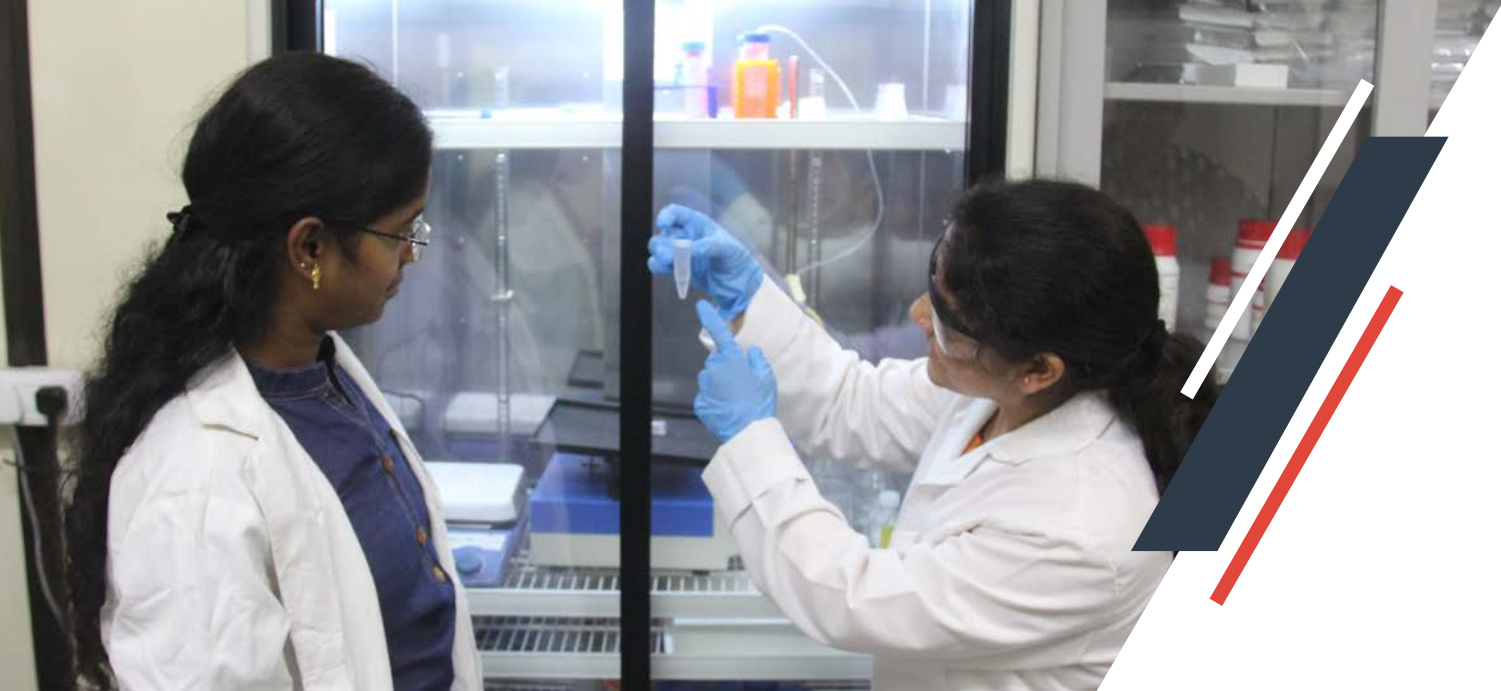
- **Prof Claire Smith's visit:** As part of the SPARC project (RES/MHRD/AR/C0207/1819/0055), **Cultural Heritage as a Facilitator for the Sustainable Development Goals**, Prof Claire Smith of Flinders University, Australia, visited IITGN in Jan and Feb 2020. She was accompanied by a distinguished cultural anthropologist, Dr Gary Jackson, an archaeology scholar Dr Ralph Jordan and her RA, Mr Luke Rooney. Prof Smith, an anthropological archaeologist of repute, taught a half-semester credited course titled **Indigenous Archaeology and Digital Repatriation**. The course covered the experiences of Indigenous peoples around the world, with a focus on the Indigenous peoples and ancient science of Australia. Two IITGN faculty members, Prof Alok Kumar Kanungo and Prof Nishaant Choksi took lectures on **Naga artifacts and repatriation and Community museums run by Adivasi Bhil communities in Gujarat**, respectively.
- A workshop on **Language Beyond Words** on the theme Rock Art Drawing and Interpretation was conducted by Dr Anagha Bhat, Artist and Archaeologist on Apr 12, 2019. She interacted with 20 participants from the institute through a range of visual, verbal and performative methods of sensory engagement and knowledge generation with an aim to demonstrate the importance of rock art as an interpretative tool in archaeological research.
- A Short Course on **Elemental Analysis with ICP-MS and Isotopic Analyses with MC-ICP-MS and TIMS** was conducted by Dr Laure Dussubieux, Chicago Field Museum, and Dr Thomas Fenn, the University of Oklahoma during July 2–5, 2019.
- During Jan 20–28, 2020, ASC hosted Dr Yann-Pierre Montelle, a speleo-archaeologist to conduct a short course titled **Of Mosaic, Hybrids, and Braids Seminar on Human Evolution**. Dr Montelle specialises in the human use of caves in prehistory and he has taught human evolution, material culture, archaeology, and Shamanism at Canterbury University, New Zealand.

## ASC FACULTY

The Centre's faculty consists of Prof Michel Danino, Visiting Professor; Dr Alok Kanungo, Assistant Research Professor; Dr Sharada C V, Assistant Professor; Dr Ruman Banerjee\*\*, post-doctoral fellow; and Dr Oishi Roy\*\*, post-doctoral fellow. Dr R S Bisht, former Joint Director General of ASI; and Dr V N Prabhakar, Director at ASI, are Guest Professors.

Prof Michel Danino is the coordinator and Prof S P Mehrotra is the co-coordinator of the Centre.

(\*\* Relieved during 2019–20)



## CENTRE FOR BIOMEDICAL ENGINEERING

The Centre for Biomedical Engineering at IITGN is focused on carrying out cutting-edge research in various areas of biomedical engineering. The Centre has an explicit mission to produce research that is of social relevance to India, and by extension, across the world. The main objectives of this Centre are:

- research and development in biomedical engineering and healthcare technologies
- developing low-cost technologies related to healthcare to help people in rural areas
- collaborating with foreign universities and prominent national and international institutes to conduct research in three major focus areas

Research activities at the Centre have three main areas of focus as follows:

- **Diagnostic/Therapeutic Tools and Techniques:** Developing novel methods to detect and treat diseases. The tools and techniques currently being developed use optical sensors, microbubble engineering, computational design, dye-based assays, therapeutic peptides and many others
- **Automated Rehabilitation and Prosthetic Techniques:** Robotics and virtual environments to provide newer, more efficient and more intuitive techniques for application by physiotherapists, neurologists and surgeons
- **Public Health Techniques:** Developing tools and techniques to prevent disease and promote health in the community

During the year 2019-20, the Center had done well in terms of publications. Specifically, there had been 30 publications from the various research groups working in these three focus areas. There had been two funded projects and two patent applications. With regard to commercialisation of patented ideas, two of these ideas are on an advanced stage of technology transfer.

## PRODUCTS/TECHNIQUES DEVELOPED BY THE CENTRE

1. **OneTouchDoctor:** Non-invasive Near Infra-red Spectroscopy based Physiology parameter (Pulse Rate, Systolic and Diastolic Blood Pressure, Hemoglobin, Saturation of Peripheral Oxygen, Perfusion Index) monitoring
2. **Instrole:** Instrumented Shoes for quantifying one's gait in terms of gait-related indices, such as Stride Time, Step Time, Cadence, Symmetry Index, Gait Stability Ratio, %Stance, %Swing, etc.
3. **MindEye:** Gaze-based quantification of one's Cognitive Impairment
4. **PTreadX:** Physiology-sensitive Treadmill-assisted Virtual Reality based Adaptive Gait Exercise Platform. This offers progressive gait exercise adapted to one's energy expenditure
5. **SWASTi:** Smart Walking Aid Stick for Parkinson's Patients. It can predict one's possibility of freezing of gait and offers external cues (adapted to one's walking speed) to help overcome freezing of gait
6. **Tunable Laser Diode Spectroscopy** based technique for prediction of H-Pylori Bacteria (responsible for Ulcer)
7. **Colorimetric and Strip-based Detection of Pesticides and Herbicides**
8. **Adaptive Noise Cancellation Headphones**

The Centre is highly interdisciplinary in nature as it comprises members from various backgrounds such as Electrical Engineering, Mechanical Engineering, Chemistry, Biological Engineering, and Computer Science. Some of the organisations/institutions that the team has worked with include John Hopkins University, USA; National University of Singapore; Columbia University, New York; Royal Melbourne Institute of Technology (RMIT), Australia; Christian Medical College, Vellore, India; Civil Medical Hospital, Ahmedabad, India; among others.



## BIOMEDICAL ENGINEERING FACULTY

The Centre's faculty consists of **Prof Uttama Lahiri**, Associate Professor and coordinator for the Centre; **Prof Karla P Mercado-Shekhar**, Assistant Professor and co-coordinator of the Centre; **Prof Arup Lal Chakraborty**, Associate Professor; **Prof Bhaskar Datta**, Associate Professor; **Prof Dhiraj Bhatia**, Assistant Professor; **Prof Himanshu Shekhar**, Assistant Professor; **Prof Joyce M Mekie**, Assistant Professor; **Prof Krishna Kanti Dey**, Assistant Professor; **Prof Malavika**

**Subramanyam**, Assistant Professor; **Prof Nitin Khanna**, Assistant Professor; **Prof Nithin V George**, TEOCO Chair Associate Professor; **Prof Sivapriya Kirubakaran**, Assistant Professor; **Prof Ravi Sastri Ayyagari**, Assistant Professor; **Prof Sameer V Dalvi**, Associate Professor; **Prof Sharad Gupta**, Associate Professor; **Prof Sharmistha Majumdar**, Assistant Professor; **Prof Umashankar Singh**, Assistant Professor; **Prof Vijay Thiruvengatam**, Assistant Research Professor; and **Prof Vineet Vashista**, Assistant Professor.

## CENTRE FOR CREATIVE LEARNING (CCL)

The Centre for Creative Learning (CCL) came into existence in Apr 2017, as a space that nurtures a scientific temper and the inherent creativity in students and teachers alike. CCL has developed **600+ unique STEM models** and activities and interacted with **10,000+ teachers** and **50,000 students** across the country. The idea is to immerse oneself in a subject in order to learn it and to do rather than merely read. The overall aim is to overhaul pedagogy by making the lectures engaging, provide experiential learning, foster creativity and innovation with the sole focus on concepts.

### EVENTS

- **Foundation Programmes at IITs:** The Centre hosted a **LEGO workshop** in the 5-week long Foundation Program of IITGN for the third year in a row. CCL culminated FP 2019 by raising a **10ft Reciprocal Ball** made up of 720 bamboo sticks, tied with 1800 tie belts in about 4 hours. The Centre also contributed to the induction courses for other IITs, namely **IIT Jammu**, **IIT Palakkad**, **IITRAM**, and **IIT Bhilai**. The CCL team interacted with about 200 enthusiastic freshers at each of these institutes, through in-depth discussion of concepts, making various models and then helping them figure-out their working principles.
- **5000+ teacher-days of PISA Workshop:** Initiated by the Organization for Economic Co-operation and Development (OECD) in the year 2000, the Program for International Student Assessment (PISA) essentially gauges whether the education of a country is helpful for its students in their daily lives or not. India is going to participate in this exam in 2021 and in an attempt to improve its performance

and ranking globally, the Government of India has given the responsibility to the Centre for Creative Learning for making necessary preparations. The Centre began the work for capacity building of teachers in the summer itself, with the first batch of 100 KVS teachers (June 24 - 28, 2019), followed by another batch of 100 KVS teachers (August 26 - 30, 2019). The aim of this initiative was to inculcate a sense of active and applied learning which serves as the backbone for practical application of classroom concepts in real life.

- **SRIP at IITGN:** CCL received a total of 1054 entries for the Summer Research Internship Programme 2019, out of which 13 students were selected to join the team to work on different hands-on learning projects. During the internship at CCL, students worked on projects such as sine wave kinetic sculpture, Enigma in the disc, path tracer, music box, draw bot, parabolic multiplication machine, self-balancing robot, reciprocal dome, mechanical digital clock, differential adder and 8-legged walking machine. CCL won the First Prize for Rubik cube solver machine for the third time in a row.
- **125+ hours of In-service Course:** Total 120 Science and Math teachers from KVS and MP Tribal Development Division attended the in-service course for a total of 22 days. The first spell of the 12 days course was conducted in June 2019, while the second spell for 10 days was completed in Dec 2019. The workshop intended to advance their teaching skills through a variety of activities and model-making sessions.
- **Design Thinking Course at IIT Palakkad:** CCL remotely



- coordinated this course for BTech first-year students for the entire autumn semester 2019 for their capacity building in visualisation and implementation. 72 students joined and worked into 18 groups.
- **STEM Box:** CCL has created a STEM box of 200+ unique activities. During the year 2019, the team has sent this box to 54 science communicators centres and recently to 100 schools of Gujarat. The box contains about 75 science-based, 75 math-based and, 50 High Order Thinking Skills (HOTS) hands-on activities and projects that allow students to tinker around and grasp seemingly difficult basics with absolute ease and develop out-of-the-box thinking capabilities.
  - **CSC Workshop:** A total of 54 participants from all 27 Community Science Centres (CSCs) of Gujarat attended an experiential STEM (Science, Technology, Engineering, and Mathematics) learning workshop hosted by CCL, with the support of Gujarat Council on Science & Technology (GUJCOST). The five-day workshop continued from May 21-25, 2019.
  - **TEQIP Advanced Pedagogy and Digital Tools Workshop Series:** More than 200 engineering faculty members from all over the country went through the TEQIP summer training programme on “Active Learning” from May 21-22, May 27-28, and June 12, 2019. The programme was aimed at improving the quality of the technical education system in the country.
  - **Short-term Course - Polyhedra and Geodesics:** The CCL team conducted a short course on Polyhedra and Geodesics during Apr 19-21, 2019. Students were introduced to the fascinating world of polyhedra where they learned about stellations, truncations, and chamfering. They explored design, laser-cutting, and assembly to form their very own Math-inspired lamps and balls. The exercise also enabled students to get more comfortable in consumer product design and 3D visualisation.
  - **Short-term Course - Cards and Combinatorics:** During a short course titled Cards and Combinatorics, the participants were taken on a roller coaster ride from delightful self-working magic tricks to serious Math, then back again to magic. Students learned about Hummer shuffles, Royal Hummer, de Bruijn Sequences, Universal Cycles, Mandelbrot Set, Neat Shuffles and many more card tricks during Apr 6-7, 2019.
  - **ITI Programme:** A total of 10 students from different Industrial Training Institutes (ITIs) across Gujarat completed their four-month intensive hands-on internship on Jan 16, 2019, under the MACOM (Makers and Communicators) Programme conducted by CCL. Upon completing the course, a graduation ceremony was held in presence of **Prof Sudhir K Jain**, Director, IITGN, and **Shri Supreet Gulati (IAS)**, Director of Employment & Training, Gujarat. Earlier, these 10 students were felicitated by Hon'ble Chief Minister of Gujarat, **Shri Vijay Rupani**.
  - **Experiential Learning Workshops across Gujarat and MP:** CCL, in collaboration with Directorate of Employment and Training (DET), Government of Gujarat, conducted five 2-day residential, hands-on experiential workshops for ITI Instructors across the state. CCL team also visited all 19 DIETs across Gujarat and 3 DIETs in Madhya Pradesh, introducing BEd students to new pedagogy.
  - **NAS Intervention Workshop for Deliberations & Finalisation of Road Map for 2020:** Manish Jain, Associate Teaching Professor, CCL was invited by NCERT

to talk about the need for hands-on and experiential learning at the Post-Intervention Workshop in Puri during Apr 18-19, 2019.

- **Charkha Making Workshop:** This programme was conducted in Delhi by the Department of Science and Technology, on the occasion of Gandhi Jayanti - Oct 02, 2019. Around 300 students participated and made charkha themselves from the lab-made flat sheets and produced electricity instead of yarn.
- **The Reciprocal Ball, a piece of (mathematical) art:** Created very beautifully as a lightweight and very low cost piece of mathematical art, this latest addition in our portfolio can be hung in any gallery. In fact, it is already on display in Delhi at the **CBSE Headquarters, DST office, KVS Headquarters and IISER pune**. Apart from Delhi, it was raised from scratch in IIT Jammu, IIT Palakkad, and IIT Gandhinagar during their respective Foundation Programmes and is now on display at each of these institutes. 720 bamboo sticks, with 5 holes each, 1800 tie belts and a few good hours of hard work is the recipe to this success.
- **University of Jaffna, Sri Lanka:** In the month of Dec 2019, CCL conducted two-days workshops on experiential learning for science and mathematics teachers and a two-day foundation program for 200 students at the University of Jaffna, Sri Lanka. The idea was to develop a conceptual understanding of experiential learning and enable teachers to design experiential activities to make classrooms engaging and joyful.
- **Demonstration:** So far CCL has showcased their work at many places but in 2019 they have set up an exhibition at **Vigyan Bhawan, Delhi; Science City, Ahmedabad; Kendriya Vidyalaya, ONGC, Ahmedabad; and Maker Fest, Baroda**.
- **Workshop in NYASA Summer Camp:** On June 21-22, 2019, CCL conducted a two-day hands-on workshop for the kids of NYASA - a social initiative by the IITGN community for the welfare of the children of construction workers around the campus.

## EMINENT VISITORS

- **Dr Aravind Srinivasan**, Director, Aravind Eye Care Systems, Tamil Nadu, India
- **Shri Dilip Kumar Gupta**, MD, Sagarmala Development Company Limited (SDCL) and Director (Projects)
- **Prof Jayant R Haritsa**, a data Scientist and Professor, Indian Institute of Science, Bangalore
- **Dr Manu Sikarwar**, Project Director, Department of Science and Technology, Govt of Rajasthan
- **Mr Atul Jain**, CEO and Founder of TEOCO
- **Shri Santosh Kumar Mall**, Commissioner, Kendriya Vidyalaya Sangathan
- **Shri Supreet Gulati**, IAS & Director, Directorate of Employment & Training, Gujarat
- **Mr K Ananth Krishnan**, CTO of TATA Consultancy Services
- **Mr R Gopalakrishnan**, Ex CEO of TATA Sons
- **Dr Yann Lecun**, 2018 ACM Turing Award Winner, New York University
- **Dr Shwetak Patel**, Winner of 2018 ACM Prize in Computing, University of Washington

**Mr Manish Jain** is the coordinator and **Prof Neeldhara Misra** is the co-coordinator of the Centre.



## CENTRE FOR COGNITIVE AND BRAIN SCIENCES

The Centre for Cognitive Science and Brain Sciences at IITGN has aimed at fostering scholarship in the area of cognitive science through research and development activities, and academic programmes at the Master's and PhD levels. The Centre also aims to take a leadership role in cognitive science within the country. The Centre is now well recognised within the country for being the pioneer among the IITs in cognitive science research and teaching programmes, its interdisciplinary character, and excellent student achievement.

The Centre continues to attract top-talent supported by 7 full-time faculty, 29 MSc and 15 PhD students. The innovative MSc and PhD programmes that started in 2013 and 2010 respectively, prepares students for a career in cognitive science research or industry. Our alumni have had successful transitions to academic and industry careers after their training such as faculty positions at IIT Delhi, IIT Roorkee, Ahmedabad University, Flame University, Wellcome Trust Early Career award, CSRI postdoctoral fellowship, Fulbright fellowship, IIT-DAAD Masters fellowship, placements at TCS R&D, Shastri Indo-Canadian fellowship etc.

Over time, the Centre has expanded its research pursuits, with increasing emphasis on understanding how cognitive processes are realised in the brain. The Centre is home to multiple state-of-the-art research facilities including behavioural cubicles, psychophysics & psychophysiological systems, eye tracking, virtual reality platforms, motion capture systems, and a driving simulator completely built in-house. With addition of research facilities for studying brain function, such as high-density 128 channel EEG system, transcranial direct current stimulator, transcranial magnetic

stimulation, the Centre is now geared to address research questions that combine neural mechanisms with the study of human cognition. Research areas include philosophy of mind, perception, attention, learning and decision making, motor control and rehabilitation, and neuro-developmental disorders such as autism.

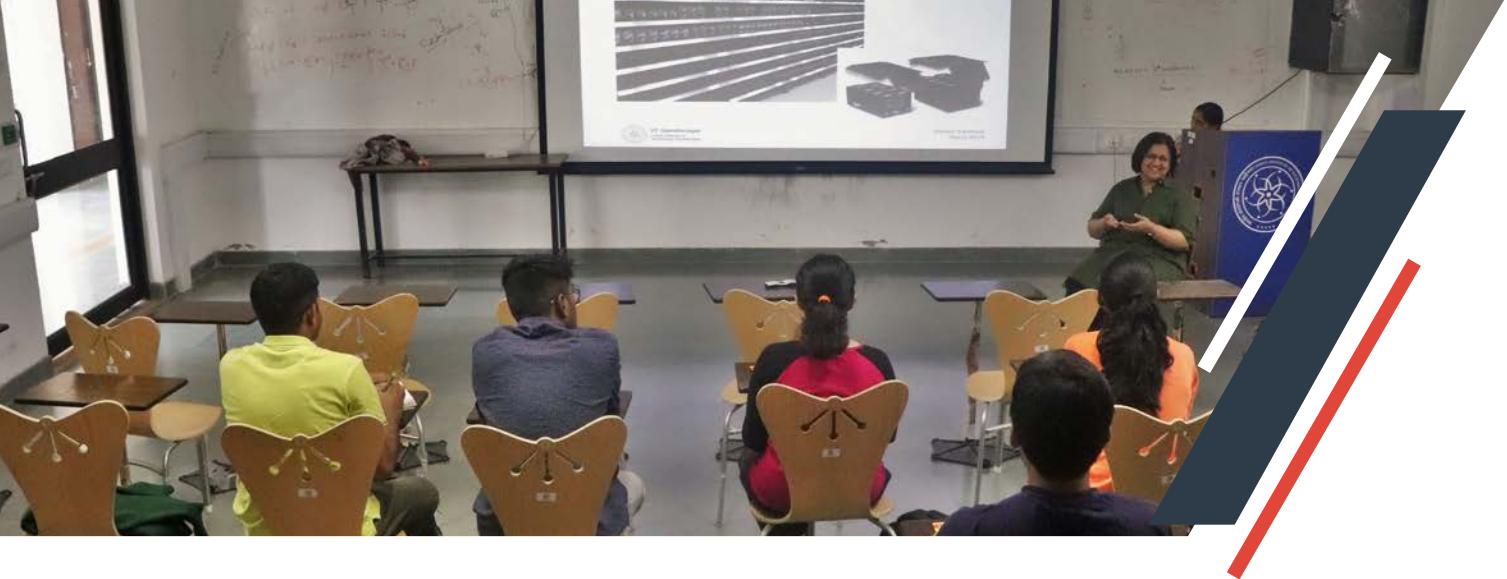
### EVENTS

- The Centre organised the 3rd edition of **CogniTalks** on Feb 7, 2020 to understand and deliberate on deeper and distinctive aspects of human cognition through experts from diverse fields. CogniTalks 2020 had an ecologist, neuropsychologist, musician and a cartoonist, who talked about cognition from different perspectives
- Centre for Cognitive and Brain Sciences and Design and Innovation Centre at IITGN jointly organised a one-day hands-on **Workshop on Science Comic-making** on Feb 8, 2020. Conducted by **Mr Arghya Manna**, a science journalist at ABP and a well-known comics artist, the workshop was attended by students and research scholars of the institute who were inspired by his scientific storytelling through comics

### CENTRE FACULTY

The Centre's faculty consists of **Prof Krishna Prasad Miyapuram**, Associate Professor and coordinator for the Centre; **Prof Meera Mary Sunny**, Associate Professor and co-coordinator of the Centre, **Prof Jaison Manjaly**, Jasubhai Memorial Chair Professor; **Prof Pratik Mutha**, Jibaben Patel Chair Associate Professor; **Prof Uttama Lahiri**, Associate Professor; **Prof Leslee Lazar**, Assistant Teaching Professor; and **Prof Vineet Vashista**, Assistant Professor.





## DESIGN AND INNOVATION CENTRE

The Design and Innovation Centre (DIC) promotes collaborative projects, research and educational initiatives on design and innovation. The DIC also nurtures student and faculty initiatives to develop innovative products and solutions through curricular and extracurricular projects, such as talks, seminars, symposiums and workshops.

Two elective courses, namely 'creativity, design and doing', and 'interface design' were also offered by **Prof Manasi Kanetkar** for design. DIC also offered 'Immersive Storytelling with AR/VR', a course taught by **Prof Leslee Lazar**. In this course, students learnt the art of storytelling in new emerging media and created an immersive experience of a scientific concept. **Prof Anežka Šebek**, Associate Professor at Parsons, The New School for Design and a Scholar-in-Residence at IITGN conducted workshops for this course. **Prof Vladan Prodanovic**, from UBC, Vancouver, Canada delivered a lecture on 'Conventional to Sustainable Engineering Design'. Various experts from the design field such as **Mr Darshan Jogi**, **Mr Mandar Kale** and **Mr Sushant Vora** were invited to conduct workshops in IITGN's Foundation Programme 2019.

## PROJECTS AND COLLABORATIONS

- DIC has collaborated with **Prof Uttama Lahiri** for design and development of wearable biomedical devices. They have designed and developed 'Instrole', a wearable biomedical device that aims to provide aid to stroke patients.
- A structural packaging for water purifier was developed in collaboration with **Prof Chinmay Ghoroi**. The aim was to enable handling and testing of the material.
- DIC designed an enclosure to enhance usability and aesthetic qualities of an aerosol-based fire extinguisher developed in the lab of **Prof Chinmay Ghoroi**.
- Prof Chinmay Ghoroi** collaborated with DIC for 3-D modeling and possible manufacturing requirement for validation of the fluid dynamic theories for fluid oscilloscope, an apparatus designed by Prof Ghoroi's lab for testing concepts of fluid dynamics
- DIC also contributed to the design and development of multiple products for the IITGN campus.

## EVENTS

- DIC had organised an exhibition to showcase 2D and 3D abstraction exercises by students under the course 'Creativity, Design and Doing'. The course was initiated

with the aim of developing one's skills to appreciate the abstract, intangible and emotional aspects of art and design. Abstraction, expression, storytelling and design for emotion were at the centre of the course.

- On Feb 15, 2020, DIC organised a workshop on Woodcut Printmaking facilitated by **Prof Leslee Lazar**. About 20 students zealously took part in the workshop and learnt about the history and the techniques of woodcuts. The one-day hands-on workshop involved them transferring their designs to wood, carving, inking, and transferring it to paper/cloth.
- In the Aug-Dec semester of 2019, a course on Introduction to Design and Innovation was offered to all second-year undergraduates (approximately 180 students). This project-based learning promoted by the course led to the students proposing as many as thirty innovations. Two students' projects namely, 'automated soil-moisturizing system' and 'solar self-cleaning pane', were presented at the Designing Sustainability conference organised at Srishti School of Design, Bengaluru, Apr 3-5, 2019.
- DIC conducted different sessions for the students of Parul University, Vadodara; and Gujarat Power Engineering and Research Institute (GPRI), Mehsana, during their visit to IITGN.

## TINKERERS' LAB

Tinkerers' Lab (TL) is a 24 X 7 facility open for the entire IITGN community and is completely managed by students. TL provides a workspace for students to work on various course related or independent projects, giving them opportunity to do hands-on work. The lab is equipped with the latest electrical and mechanical tools like laser cutters and engraving machines, 3D printers, fabrication facilities, etc. During this year, the lab acquired a PCB milling machine and a vinyl cutter. TL organised workshops and competitions for the community to learn new skills and encourage them to work in the lab.

## CENTRE FACULTY

The Centre's faculty consists of **Prof Vineet Vashista**, Assistant Professor and coordinator for the Centre and **Prof Leslee Lazar**, Assistant Teaching Professor and co-coordinator of the Centre.

## DR KIRAN C PATEL CENTRE FOR SUSTAINABLE DEVELOPMENT

The Dr Kiran C Patel Centre for Sustainable Development (KPCSD) at IITGN undertakes cutting-edge research on sustainability and related challenges of high societal importance and promotes cost-effective and sustainable solutions through its strong outreach and technology-transfer programmes. The main objectives of this Centre are:

- Identify and conduct interdisciplinary research on sustainability related problems of high societal importance
- Develop practical solutions to sustainability challenges by integrating research, traditional knowledge and field understanding, and translate them into prototypes, patents, and publications
- Establish an effective technology-transfer programme for sustainability solutions in the field
- Implement sustainability solutions on campus and its neighborhood
- Develop a strong outreach programme of training, education, awareness and community engagement on sustainable livelihood and development
- Promote networking and collaboration among scholars, policy makers, industry, non-profit organisations and other stakeholders on sustainability
- Promote educational programmes on sustainability at IITGN

### FOCUS AREAS

- **Water:** desalination, safe drinking water production, water resources, river flow
- **Pollution & Waste Management:** air, water & soil pollution, waste segregation, treatment and recycling, waste to resource techniques
- **Energy:** renewable energy, efficiency and energy management
- **Climate Change:** extreme events, prediction and simulation
- **Natural Resources, Wildlife & Ecosystems:** biodiversity conservation, ecotourism, traditional ecological knowledge, environmental humanities

### PROGRAMMES

- **Research:** research and consultancy on sustainability and promoting national and global collaborations
- **Practice:** lab-to-field technology transfer and

implementation on campus and the neighbourhood

- **Education:** curriculum development at IITGN and advance education on sustainability nationally and globally
- **Outreach:** conferences, networking, training programmes and workshops for scholars and professionals

The Centre has announced fellowships and grants for the alumni and the students of the institute for encouraging and motivating students to consider researches in the field of sustainability. A few examples of such initiatives by the Centre include Young Alumni Fellowship, Research fellowships, Student Sustainability Grant and such others. Some of the projects supported over the last year include Nutraceuticals from Food Waste, Water Governance in Ahmedabad, and Water management at IITGN campus.

The Centre supported **summer research internships** of three students in 2019, who worked on the following topics: Campus Dashboard and Machine Learning for Sustainability, and Wearable Air Quality Monitor.

With the aim of encouraging urgent research on the disease and its societal impact, the KPCSD established the **Covid-19 Research Awards** for research by IITGN faculty and students on all aspects of the pandemic. The awards are designed to encourage research that advances understanding of the pandemic and its psychological, educational, economic and societal impact.

### EVENTS

- The Centre hosted its second annual **Sustainability Fair** on Feb 28, 2020, to promote knowledge sharing and academia-industry partnerships. The event was inaugurated with keynote talks by invited speakers, **Mr Kartikeya Sarabhai**, Founder & Director, Centre for Environment Education; **Dr Ratan Chand Jain**, Ex-Chairman, Central Groundwater Board; and **Mr Sarbjit Singh Sahota**, Emergency Specialist, Disaster Risk Reduction Section, UNICEF India. The Fair had nearly 30 exhibitors, including government agencies, NGOs, welfare organisations, and industry leaders from across the country who showcased a wide range of sustainable development practices, projects, products





and services on water, pollution & waste management, energy, climate change, wildlife & ecosystems. The event concluded with a networking session to explore knowledge sharing and academia-Industry partnerships around a wide range of sustainable development themes

The Centre organised five seminars as a part of the Sustainability Seminar Series during the last year.

- » **“A Vision for Green and Sustainable Education: at the University of Pittsburgh at Johnstown”** by **Dr Manisha Nigam**, Associate Professor at the University of Pittsburgh, Johnstown on Feb 21, 2020
- » **“Smart Network of Universities: Deploying Technology 4.0 for SDGS”** by **Mr Rajendra M Shende**, former Director at United Nations Environment Programme and a leading expert in sustainable technologies and policies on Feb 20, 2020
- » **“Building Sustainable Infrastructure: Advanced Spray and Jet Cooling for New Materials and Technologies”** by **Dr Valdan Prodanovic**, Senior Instructor in the Departments of Chemical and Biological Engineering, and Mechanical Engineering at the University of British Columbia (UBC) Canada, and Director of the Master of Engineering Leadership program in Clean Energy Engineering on Oct 17, 2019
- » **“Filling the Knowledge Gap on Air Quality in Indian Cities”** by **Dr Sarath Guttikunda**, Founder/Director of UrbanEmissions and an Atmospheric Scientist on Sep 24, 2019
- » **“Exploring the Potential of Iron-bearing Minerals for Sustainable Contaminant Remediation and Water Treatment Systems”** by **Dr Anke Neumann**, Lecturer at School of Engg, Newcastle University, UK on Sep 13, 2019
- KPCSD-WIN Foundation Roundtable on Jan 10, 2020 brought together WIN and KPCSD-IITGN partners and other organisations/experts in Water and Sanitation (WATSAN) and Maternal and Child Health (MCH). The participants provided constructive suggestions and offered their support in initiatives to drive and bring social change in the focused domain.
- The WIN-CSD-ACT Roundtable on July 9, 2019 discussed the vision and activities of KPCSD and ACT and identified areas of collaboration. Students and faculty from IITGN later visited the Bhuj district of Gujarat, as a follow-up to the WIN-KPCSD-ACT workshop to understand various water conservation practices that have been implemented by the community with assistance from Arid Communities and Technologies (ACT).
- IITGN and Gujarat Ecological Education and Research

(GEER) Foundation, Gandhinagar, jointly organised a mega workshop series on Climate Change titled **“Climate Action Now (CAN)”** 2020. The workshop series was inaugurated on Feb 11, 2020 by **Shri S J Haider**, IAS, Principal Secretary, Climate Change Dept, Government of Gujarat. This was followed by two two-days workshops on Feb 13-14 and Feb 27-28, 2020, on the theme ‘Climate Policy and Governance’. This workshop series was planned on three theme-based segments namely, 1) Climate Change Policy and Governance (during Feb 2020), 2) Climate Action and Role of Industry (during Mar 2020), and 3) Climate Change Research And Technology Development (during Apr 2020). The second and third segments had to be postponed due to the global pandemic.

## COLLABORATIONS

**Dr Jyotika Ramaprasad** and **Dr Vladan Prodanovic** were hosted at IITGN as scholars-in-residence this year.

Dr Ramaprasad, Professor, School of Communication, University of Miami, undertook a project on the oral history of stepwells in Ahmedabad with the help of student volunteers. She guest lectured in three courses and contributed to discussions on institute initiatives to improve students’ writing.

Dr Prodanovic, Senior Instructor in the Departments of Chemical and Biological Engineering, and Mechanical Engineering at the University of British Columbia (UBC) Canada, and Director of the Master of Engineering Leadership program in Clean Energy Engineering taught a half semester course on phase change heat transfer, delivered guest lectures and seminars, and also provided guidance to graduate students.

## CENTRE FACULTY

The Centre’s faculty consists of **Prof Achal Mehra**, Visiting Professor and coordinator for the Centre; **Prof Jaichander Swaminathan**, Kanchan and Harilal Doshi Chair Assistant Professor and co-coordinator of the Centre; **Prof Ambika Aiyadurai**, Assistant Professor; **Prof Nipun Batra**, Assistant Professor; **Prof Atul Bhargav**, Associate Professor; **Prof Udit Bhatia**, Assistant Professor; **Prof Arup Chakraborty**, Associate Professor; **Prof K Chelvakumar**, Visiting Professor; **Prof Michel Danino**, Visiting Professor; **Prof Chinmay Ghoroi**, B S Gelot Chair Professor; **Prof Vikrant Jain**, Professor; **Prof Manish Kumar**, Assistant Professor; **Prof Pranab Mahapatra**, Professor; **Prof Vimal Mishra**, Associate Professor; **Prof CN Pandey**, Visiting Professor; **Prof Naran Pindoriya**, Associate Professor; and **Prof Sudhanshu Sharma**, Assistant Professor.



## CENTRE FOR SAFETY ENGINEERING

The Centre for Safety Engineering (CSE) of IITGN pursues high-impact research and quality education in the field of safety. The CSE is committed to promoting a culture of safety and is mainly focused on fire safety. The main objectives of the Centre are:

- Undertake research and consultancy projects to ensure safe and accident-free society
- Teach courses on safety
- Disseminate knowledge related to safety through conferences, workshops/symposia to enable safety professionals to keep abreast of current trends
- Training staff and students on safe working practices in all aspects of IITGN's operations such as labs and event organisation

Several research projects have been undertaken by faculty members from diverse disciplines along with their undergraduate and postgraduate students. The major projects by the Centre include 'Development of smart, environment-friendly, and low-cost fire detection and suppression system', funded by MHRD and Shah Bhogilal Jethalal & Bros under Uchhatar Avishkar Yojana (UAY); and 'Glass Facade Building Fire behavior in full-scale building', funded by UL and IITGN. One of a kind and the largest glass façade fire facility in the country has been set-up on campus for the project. Recently, the Centre has conducted a few full-scale fire tests at the IITGN-UL fire Testing facility for performance assessment of firestops with Hilti India Pvt Ltd.

The centre also transferred the technology to Shah Bhogilal & Jethilal Brothers for commercialising the aerosol-fire extinguishers. The technology has been developed by the Centre in collaboration with Shah Bhogilal & Jethilal Brothers. The centre is also developing computational simulation tools for modeling the energetic materials. The project is funded by DRDO. A one-day workshop on Reviewing Fire Safety Standards for Metro Rail Stations was organised at IITGN by the Ministry of Housing and Urban Affairs (MoHUA) on May 15, 2019. A short course on 'Basics of Fire Engineering' was conducted by **Dr Pravinray D Gandhi**, a Guest Professor at IITGN & Corporate Fellow, Commercial and Industrial R&D, Underwriters Laboratories, Chicago, during Sep 18-19, 2019. The Centre furnishes various safety-related courses in its curriculum and also conducts conferences and workshops for reaching out to safety professionals.

## CENTRE FACULTY

The Centre's faculty consists of **Prof Chinmay Ghoroi**, B S Gehlot Chair Professor and the coordinator for the Centre; **Prof Gaurav Srivastava**, Associate Professor and the co-coordinator of the Centre.



# CONFERENCES / WORKSHOPS / SYMPOSIA / SEMINARS

Conferences, workshops, symposia and seminars are vital academic activities that help stimulate discussions on a wide variety of important topics. Many of these activities invite participation from other organisations and enhance the institute's visibility to the outside world. The following activities were organised during 2019-20:

## CONFERENCES



### WIN CONFERENCE

WIN (Wheels India Niswarth) Foundation, together with Wheels Charitable Foundation, IITGN and Indian Institute of Public Health, Gandhinagar (IIPHG) organised the first WIN Conference 2019: 'Innovate and Empower to Accelerate Social Change' on Apr 5-6, 2019 at the Institute. The conference was aimed at providing a platform to various stakeholders with a common objective to drive and accelerate change for the under-served communities. The conference focused on three domains: (i) water and sanitation, (ii) maternal and child health, and (iii) smart villages.

### IRISS AND ACM-W EVENTS

IITGN hosted the 14th Inter-Research-Institute Student Seminar in Computer Science (IRISS 2020) and Association for Computing Machinery-Women India (ACM-W India) events in Computer Science, on Feb 13-14, 2020, to encourage and inspire young talent and women to move ahead in this field.

The two days of IRISS 2020 witnessed many enlightening talks, poster presentations and two panel discussions by faculty members and participants from all over the country. More than 150 faculty members, researchers and students participated in IRISS 2020 at IITGN. The day-long ACM-W workshop on Feb 14 had three invited talks and a panel discussion.

### ACM- INDIA'S ANNUAL EVENT 2020

IITGN hosted the Association for Computing Machinery-India (ACM-India)'s annual event 2020 on Feb 15, 2020. The event saw an overwhelming participation of more than 1200 students, researchers, faculty members, and professionals of computer science and allied areas from all over the country. The prestigious event was graced by **Prof Cherri Pancake**, President of ACM; **Prof Abhiram Ranade**, President of ACM India; ACM Award winners as speakers; **Shri Abhishek Singh (IAS)**, President & Chief Executive Officer of National e-Governance Division; and ACM-India Office Bearers.

### NATIONAL CONFERENCE IN CHEMISTRY

The Discipline of Chemistry organised the 3rd National Conference in Chemistry during Feb 12-13, 2020. The conference was hosted by IITGN with support from SERB, GUJCOST and several industrial partners. About 200 faculty and students from several universities participated, 21 distinguished speakers from reputed institutes presented their research findings in six technical sessions. The conference was coordinated by **Prof Sivapriya Kirubakaran** and **Prof Sriram Kanvah**.

## UTYAEI

IITGN and the National Institute of Educational Planning and Administration (NIEPA), New Delhi, jointly organised an international conference on Urban Transformations, Youth Aspirations and Education in India (UTYAEI) on Feb 20-21, 2020. The inaugural panel had **Dr Bhushan Patwardhan**, Vice Chairman, University Grants Commission (UGC), and Chief Guest of the conference; **Prof Pankaj Chandra**, Vice-Chancellor, Ahmedabad University; and **Prof Sudhir Jain**, Director, IITGN, who discussed about the education system in India. The conference was organised by **Prof Mona Mehta**.

## HOMI COLLOQUIUM

A colloquium was conducted to give tangible shape to the recently launched HoMI (History of Mathematics in India) project during Feb 24-25, 2020. The two-day colloquium was in the form of a series of panel discussions with experts on specific areas of potential research and other activities. It was organised by **Prof Michel Danino**, **Prof Indranath Sengupta** and **Prof Sudipta Sarkar**.

## INTERNATIONAL CONFERENCE ON AEE

The Humanities and Social Sciences discipline, IITGN, in association with the Indian Council of Social Science Research (ICSSR), New Delhi, organised a three-day international conference on Affect, Embodiment and Ecology: Multi-disciplinary Perspectives during Mar 2-4, 2020. The conference had insightful discourses from more than 30 speakers, including four keynote speakers from Japan, India and Australia. The conference was coordinated by **Prof Ambika Aiyadurai**, **Prof Arka Chattopadhyay** and **Prof Nishaant Choksi**.

## IGRIP CONCLAVE

To mark the one-year anniversary of Initiative for Geotechnical Research and Innovative Practices (iGrip), a two-day Conclave was organised at IITGN by **Prof Ajanta Sachan** during Mar 2-3, 2020. The conclave brought together various stakeholders involved in geotechnical engineering and related areas, about 55 industry professionals, government officials, faculty members and students from all over the country to create awareness about innovative practices and fostering multidisciplinary research through the amalgamation of academia and industry.

## WORKSHOPS

- A one-day workshop on Reviewing Fire Safety Standards for Metro Rail Stations by **the Ministry of Housing and Urban Affairs (MoHUA)** on May 15, 2019. **Prof Gaurav Srivastava** coordinated the workshop.
- Language Beyond Words by **Dr Anagha Bhat**, Artist and Archaeologist, Apr 12, 2019.
- Biomechanics and Neuroscience of Human Motion by **Prof Varadhan SKM**, IIT Madras; **Prof Pratik Mutha**, IITGN; **Prof Vineet Vashishta**, IITGN; and **Prof Neeta Kanekar**, IIT Bombay, June 04-06, 2019.
- Workshop on Generative Design with Autodesk Fusion 360 by **Anand Pujari**, Education Account Manager, Autodesk, Apr 13, 2019.
- Sexual Cultures: Youth, Body & the Market, in collaboration with the Population Foundation of India, New Delhi, on May 11, 2019. **Prof Tannistha Samanta** was the convener for the workshop.
- **Workshops By CCL-IITGN:** Centre for Creative Learning, IITGN, in collaboration with Directorate of Employment and Training (DET), Government of Gujarat conducted five 2-day residential, hands-on experiential workshops for ITI Instructors of the state. The centre also conducted workshops at all 19 District Institute of Education and Training (DIET) centres of Gujarat and introduced BEd students to new pedagogy. Government of India

has sought involvement of CCL in improving the country's performance and ranking in the 2021 Program for International Student Assessment (PISA) exam. The team of CCL has already trained around 200 KVS teachers, 70 teachers of NCR CBSE schools. CCL has offered four months internship to ten students from various ITIs of Gujarat under the initiative- 'Makers and Communicators'. These ten students were also felicitated by the Hon'ble Chief Minister of Gujarat, **Shri Vijay Rupani**, on Sep 19, 2019.

- Elemental Analysis with ICP-MS and Isotopic Analyses with MC-ICP-MS and TIMS by **Dr Laure Dussubieux**, Chicago Field Museum, and **Dr Thomas Fenn**, University of Oklahoma, July 2-5, 2019.
- **ACM-W Summer School on Algorithmic Game Theory**, in partnership with ACM-India and ACM-Women India, and with support from Oracle, July 2-14, 2019. The summer school was coordinated by **Prof Neeldhara Misra**.
- Effective Use of 'Web of Science' Citation Database and 'EndNote' Reference Management System by **Dr Subhasree Nag**, Scientific Research Division, Clarivate Analytics, Aug 24, 2019.
- SciFinder Database for Academic Research by **Mr Vinit Kunte**, ACS International, Sep 4, 2019.
- Innovations and Patenting: InnovationQ Plus- a Tool for Determining Patentability (IEEE) by **Dr**

**Dhanu Pattanashetti**, Client Services Manager at IEEE, USA, Sep 6, 2019.

- On-site Microbial Water Quality Surveying with a Portable Sequencing Device Workshop by **Dr Kishor Acharya**, Research Associate, Newcastle University, UK, Sep 9-12, 2019.
- Quantum Thermal Machines by **Prof Bijay Agarwalla**, IISER Pune; **Prof Arnab Ghosh**, IIT Kanpur; **Prof Saikat Ghosh**, IIT Kanpur; **Prof Sibasish Ghosh**, IISc Chennai; **Prof Ramandeep Johal**, IISER Mohali; **Prof T S Mahesh**, IISER Pune; **Prof Victor Mukherjee**, IISER Berhampur; **Prof Umakant Rapol**, IISER Pune; **Prof R Vijay**, TIFR Mumbai; **Prof B Prasanna Venkatesh**, IITGN; **Prof Sai Vinjanampathy**, IIT Bombay, Sep 21-22, 2019.
- Winter School on Social Science Research Methods for Conservation Biologists and Practitioners, Oct 9-15, 2019. The event was coordinated by **Prof Ambika Aiyadurai**.
- **Fall School in Language**, in collaboration with the Delhi University and Anthropological Survey of India, Oct 7-11, 2019. The event was coordinated by **Dr Chakraverti Mahajan**, Delhi University, and **Prof Nishaant Choksi**, IITGN.
- Effective Use of SCOPUS Citation Database & MENDELEY - Reference Management Software by **Dr Shubhra Dutta**, South Asia A&G Team, Elsevier Publisher of Chicago Field Museum, Oct 17, 2019.



- Scientific Writing for Journals by **Dr Swati Meherishi**, Springer Nature Publishing, Oct 23, 2019.
- SPARK Workshop on River Styles (RS) Framework and Fluvial Geomorphology by **Prof Gary Brierley**, University of Auckland, New Zealand and **Prof Kirstie Fryirs**, Macquarie University, Sydney, Australia, Oct 30 to Nov 2, 2019. The workshop was coordinated by **Prof Vikrant Jain**.
- Using Turnitin for Similarity (Plagiarism) Checking of Documents by **Mr Varun Piplani**, TurnitinIndia Educational Pvt Ltd, Nov 6, 2019.
- Nonlinear Oscillations, Waves and Advanced Asymptotic Methods by **Prof S Narayanan**, IIITDM Kancheepuram; **Prof Oleg Gendelman** and **Prof Yuli Starosvetsky**, Israel Institute of Technology, Technion; and **Dr K R Jayaprakash**, IITGN; Nov 11-13, 2019. The workshop was coordinated by **Prof K R Jayaprakash**.
- Managing Your References Using Zotero - a Reference Management

- Software by **Aditi Gupta**, University of Victoria Libraries in British Columbia, Canada; and **IITGN Library team**, Nov 22, 2019.
- Distributed Energy Resources and Energy Management, Dec 3-4, 2019. The workshop was coordinated by **Prof Naran Pindoriya**.
- Winter Institute in Digital Humanities (WIDH) by IITGN and the University of Saskatchewan (USask), Dec 8-22, 2019. The programme had four keynote talks by **Prof Anil K Gupta**, **Shri P Sainath**, **Prof K P Jayasankar**, and **Prof Jatindra Kumar Nayak**. The event was coordinated by **Prof Arnapurna Rath**, IITGN, and **Prof Raj Srinivasan** and **Prof Jim Clifford**, USask.
- Ultrasound Contrast Agents: Application of Gas-filled Microbubbles in Biomedical Engineering by **Prof Himanshu Shekhar**, **Prof Karla Mercado-Shekhar**, and **Prof Sameer Dalvi**, Dec 14-15, 2019.
- Residential training workshop for 40 engineering undergraduates from Mehsana's **Gujarat Power**

**Engineering and Research Institute (GPRI)**, Dec 16 to 20, 2019.

- Tell to Sell by **Ms Vranda Rathi**, an avid Toastmaster of Ahmedabad, Jan 19, 2020.
- Introduction to the Typesetting System LaTeX by members of **Team LaTeX**, IITGN, January 20-21, 2020.
- Science Comic Making Workshop by **Mr Argha Manna**, a Science journalist at ABP and a Comics Artist, Feb 8, 2020.
- Woodcut Printing Workshop by **Prof Leslee Lazar**, IITGN, Feb 15, 2020.
- Recent Trends in Algorithms (RTA), Feb 16-19, 2020. **Prof Manoj Gupta** coordinated the workshop.
- Quantitative Geomorphology, in collaboration with Indian Oil Ltd (OIL) and Indian National Science Academy (INSA), Feb 7-21, 2020. **Prof Vikrant Jain** coordinated the two-week workshop.
- From Bulk to Boundary: Recent Trends in Holography and Quantum Field Theory, Mar 12-13, 2020. The workshop was organised by **Prof Arpan Bhattacharyya**.

## SYMPOSIA/SEMINARS

### RASANAYAM '19

The discipline of Chemistry hosted its first ever Chemistry Festival, Rasayanam'19 during Apr 6-7, 2019. The two-day extravaganza was marked by a popular talk by **Prof Uday Maitra**, an eminent chemist at IISc Bangalore, and many other fun-filled events such as quiz, debate, chem charades, dramatics, prayog, and art attack.



### SEMINAR ON SEISMIC DESIGN OF CONFINED MASONRY BUILDINGS

IITGN organised a one-day Seminar on 'Seismic Design of Confined Masonry Buildings' on Apr 10, 2019. IITGN has successfully pioneered the first large-scale application of Confined Masonry in India in its own campus construction. The seminar aimed to popularize this building technology among practitioners, students of civil engineering, and industrial organizations. The seminar was attended by about 140 participants from different institutes across the country. **Prof Svetlana Brzev** coordinated the seminar.

### ROUND-TABLE DISCUSSION ON CASTE IDENTITY AND RESOURCES

The HSS discipline at IITGN celebrated Ambedkar Jayanti by hosting a round-table discussion on Caste, Identity, and Resources on Apr 15, 2019. The panel discussion was followed by a cultural programme of poetry and social justice songs recitation, performed by National Peace Group, Ahmedabad. The programme was coordinated by **Prof Ambika Ayadurai**.

### PANEL DISCUSSION ON ROLE OF SCIENTISTS IN GOVERNANCE

The discipline of Earth Science and Humanities & Social Sciences organised a session on the theme of 'Environmental Governance' on Apr 18, 2019. The session was held in two parts; first a descriptive talk on Environmental Governance followed by a panel discussion on the involvement of scientists in governance. The event was conceived and coordinated by **Omi Kumari**, second-year MA student, IITGN.

### SEMINAR-CUM-WORKSHOP ON SEISMIC CODES

IITGN organised a one-day seminar-cum-workshop on seismic codes IS 1893 (Part 1) and IS 13920 on May 17, 2019. The event was arranged as a part of the World Bank sponsored project to deliberate on proposed changes in the 2016 editions of seismic codes IS 1893 (Part 1) and IS 13920. More than 180 participants including industry leaders, faculty, and students of civil engineering from across the country attended the seminar-cum-workshop. A workshop on seismic codes had also been conducted at the Institute on Apr 8, 2019, in which 27 eminent engineers and academics brainstormed about

two key seismic codes - IS:1893 and IS:13920. **Prof Sudhir Jain** coordinated the seminar-cum-workshop.

### AICWiC 2019

The Institute hosted ACM India Celebrations of Women in Computing (AICWiC 2019) on July 13, 2019, by inviting **Dr Gargi Das Gupta**, Director of IBM Research India and the CTO of IBM India and South Asia; and **Prof Joyce Mekie**, Assistant Professor, Electrical Engineering, IITGN for two keynote lectures. This was followed by a panel discussion on 'Soft Computing for Global Development / Women in Computing'.

### HIGH-SPEED RAIL SEMINAR

The National High-Speed Rail Corporation (NHSRCL) organized a seminar on 'High Speed Rail & Related Research Projects' at IITGN on Aug 27, 2019. Keynote speakers at the seminar, **Shri Achal Khare**, Managing Director, NHSRCL and **Dr Norimichi Kumagai**, President, Railway Technical Research Institute (RTRI), Japan, discussed the first HSR project in India and technical aspects associated with it. The keynote speeches were followed by a panel discussion.

### 4th DR A N KHOSLA LECTURE

IITGN hosted the 4th Dr A N Khosla lecture organized by IIT Roorkee Alumni Association Ahmedabad Chapter (IITRAAA) on Sep 7, 2019. **Shri Dilip Kumar Gupta**, MD, Sagarmala Development Company Limited (SDCL) and Director Projects, delivered a lecture on 'Vision of Sagarmala and the Role of SDCL'.



### REGIONAL SEMINAR ON RAJBHASHA

The first Western Regional Seminar on Rajbhasha was organised on Oct 10-11, 2019, at IITGN. The event was organised by the Official Language Division of MHRD. Around 200 representatives of Kendriya Vidyalayas, Jawahar Navodaya Vidyalayas and other educational institutions from Rajasthan, Gujarat, Maharashtra, and Goa participated in the two-day seminar.

### RESEARCH CONNECT FORUM

IITGN and Elsevier jointly organised a Research Connect Forum on the theme of 'Research Collaboration and its Impact on Innovation and Economic Development' on Oct 17, 2019. More than 75 leading academicians, industry representatives, and research administrators from the state and South Asia region attended the event.

### LECTURE ON RAMANUJAN

IITGN hosted a public lecture on Srinivasa Ramanujan on Nov 05, 2019. **Prof Bruce C Berndt**, a former faculty at the University of Illinois at Urbana-Champaign, USA, and one of the world's foremost authorities on the work of Ramanujan, delivered a lecture on 'Living with Ramanujan for 40+ Years'. The lecture was coordinated by **Prof Atul Dixit**.

### DIBANG SEMINAR

The HSS discipline of IITGN organised 'Dibang Research Seminar: Initiating Dialogue Between Idu Mishmi and

Research Scholars' on Dec 10-11, 2019, at Anini, Dibang Valley district in Arunachal Pradesh. Around 15 Resource persons from various organisations, scholars, leaders and shaman priests from the Idu Mishmi community conducted the sessions. The seminar was coordinated by **Prof Ambika Aiyadurai**.

### CHEMISTRY CAMP

A three-day residential Chemistry Camp for 9th standard students was conducted by the Royal Society of Chemistry (RSC), India and Salters' Institute, UK in association with IITGN, between Dec 10-12, 2019. It hosted 66 students of several state government schools of Gandhinagar and Ahmedabad. IITGN faculty members **Prof Bhaskar Datta** and **Prof Sivapriya Kirubakaran** gave two lectures and **Prof Sriram Kanvah** conducted a demo of chemistry experiments.

### NUMBER THEORY SYMPOSIUM

The Mathematics discipline organised a two-day Symposium in Number Theory at IITGN during Dec 22-23, 2019, to celebrate the 132nd birth anniversary of Srinivasa Ramanujan. Many experts were invited to share their knowledge. **Prof Akshaa Vatwani**, **Prof Arnab Saha**, and **Prof Atul Dixit** coordinated the Symposium.

### COGNITALKS 2020

The Centre for Cognitive Science at IITGN organised the third edition of CogniTALKS on Feb 07, 2020, to understand and deliberate on deeper and distinctive aspects of human cognition. CogniTALKS 2020 had an ecologist, neuropsychologist, musician and a cartoonist, who talked about cognition from different perspectives.

### SYMPOSIUM ON NANOSCIENCE

**Prof Krishna Kanti Dey** and **Prof Rupak Banerjee** organised a Symposium on Frontier Problems in Nanoscience and Nanotechnology (FPNN-2020) during Feb 14-15, 2020. Several distinguished scientists from across the country delivered lectures and about 65 students and researchers from the neighbouring institutes participated in the two-day event.

### PHYSICS COLLOQUIUM

The discipline of Physics organised a colloquium titled Avatars of Gravity by **Prof Thanu Padmanabhan**, Inter-University Centre for Astronomy & Astrophysics (IUCAA), Pune, on Feb 27, 2020, focusing on various aspects of gravitational physics, including black holes and the cosmological constant. **Prof Sudipta Sarkar** coordinated the event.

### MATHEGON 2020

Discipline of Mathematics organised its annual outreach event, MatheGon on Feb 1, 2020. The event, coordinated by **Prof Indranath Sengupta**, engaged school children in various facets of mathematics through day-long events, talks and activities.





# SABARMATI YOUNG RESEARCHERS SEMINAR SERIES

- Geometric Control of Mechanical Systems by **Aradhana Nayak**, PhD Student, IIT Bombay, Apr 11, 2019
- Attitude Tracking Control for Aerobatic Helicopters: A Geometric Approach by **Nidhish Raj**, PhD Student, IIT Kanpur, Apr 22, 2019
- Meshfree Numerical Modeling for 'Problem-Solving' in Geoscience by **Dr Pankaj K Mishra**, Postdoctoral Researcher, University of Hong Baptist University, Hong Kong, May 8, 2019
- Effective Dynamics of a Quartic Oscillator by **Dr Bidisha Chakraborty**, Postdoctoral Fellow, International Centre for Theoretical Sciences (ICTS), Bangalore, June 27, 2019
- Anomaly and Index Theorem by **Dr Arnab Rudra**, Postdoctoral Fellow at the Abdus Salam International Center for Theoretical Physics (ICTP), Italy, Aug 8-9, 2019
- Development of a Colorimetric Plasmonic Nanosensor for the Detection of Therapeutic Levels of Ionizing Radiation by **Dr Karthik S Pushpavanam**, Postdoctoral Associate, Massachusetts Institute of Technology (MIT), USA, Aug 16, 2019
- Beyond Control: Enabling Smart Thermostats for Leakage Detection by **Milan Jain**, PhD Scholar, Indraprastha Institute of Information Technology Delhi (IIITD), Aug 21, 2019
- Guarding Polygons via CSP by **Dr Akanksha Agarwal**, Postdoctoral Researcher, Ben-Gurion University of the Negev, Israel, Aug 28, 2019
- Design, Function and Utilization of Surface Coatings for Mitigating Battery Degradation by **Dr Rosy Sharma**, Postdoctoral Fellow, Bar Ilan University, Israel, Oct 18, 2019
- In-process Discontinuity Detection during

- Friction Stir Welding by **Dr Amber Shrivastava**, Assistant Professor, IIT Bombay, Oct 21, 2019
- Large Scale CFD Modeling of Gas-particle Flows in Fluidized Beds by **Dr Vikrant**, Complex Fluid Processing Group, Delft University of Technology, The Netherlands, Nov 6, 2019
- Understanding Complex Geochemical Reactions Insights from High Pressure-temperature In-situ Synchrotron Experiments by **Alok Chaudhari**, PhD candidate, Monash University, Melbourne, Australia, Nov 23, 2019
- Friction Stir Processing of Beta Titanium Alloys: Challenges and Opportunities by **Dr Aniket Dutt**, University of North Texas, Denton, USA, Nov 22, 2019
- Engineering Thermal Conduction in Semiconductor Nanostructures by **Dr Abhinav Malhotra**, Postdoctoral Fellow, University of Delaware, USA, Nov 22, 2019
- Fair Division of Indivisible Items by **Dr Rohit Vaish**, Postdoctoral Researcher at Rensselaer Polytechnic Institute, USA, Dec 6, 2019
- Abrupt Climate Anomalies Recorded in Lacustrine and Marine Sediments during the Quaternary by **Dr Yama Dixit**, Research Fellow, Earth Observatory of Singapore Nanyang Technological University, Dec 11, 2019
- Topological Metamaterials: Emerging Trends in Manipulating Mechanical Waves by **Dr Rajesh Chaunsali**, Postdoctoral Researcher, Laboratoire d'Acoustique de l'Université du Maine, CNRS, France, Dec 12, 2019
- Diverse Functions of Molecular Motors: From Mitosis to Cellular Transport to Microtubule Organization by **Dr Manas Chakraborty**, Postdoctoral Researcher, University of Warwick,

- UK, Dec 20, 2020
- Synthesis of B2 Aluminides (FeAl and NiAl) using Spark Plasma Sintering and Their High Temperature Deformation by **Dr Niraj Chawake**, Postdoctoral Fellow, Austrian Academy of Sciences, Leoben, Austria, Dec 27, 2020
- Learning for Numerical Geometry by **Gautam Pai**, PhD Candidate, Technion - Israel Institute of Technology, Haifa, Israel, Jan 2, 2020
- MALTS - Matching After Learning to Stretch by **Harsh Parikh**, PhD Student, Duke University, USA, Jan 3, 2020
- Microsecond Conformational Dynamics of Biopolymers Studied by Two-dimensional Fluorescence Lifetime Correlation Spectroscopy (2D FLCS) by **Dr Bidyut Sarkar**, Postdoctoral Researcher, Molecular Spectroscopy Laboratory, RIKEN, Wako, Japan, Jan 7, 2020
- Robot Design for Everyone – Computational Tools that Democratize the Design of Robots by **Dr Ruta Desai**, Research Scientist, Facebook Reality Labs (FRL), Redmond, USA, Jan 7, 2020
- Generating Steady State Coherence a Solid State Qubit using Quantum Noise from Phonons by **Dr Archak Purkayastha**, Postdoctoral Fellow, Trinity College, Dublin, Jan 9, 2020
- Continuous-variable Quantum Repeaters based on the Quantum Scissors and Mode Multiplexing by **Dr Kaushik Seshadreesan**, Postdoctoral Fellow, Trinity College, Dublin, Jan 21, 2020
- Materials under Extreme Pressure Conditions: Implications for Exoplanet Mineralogy by **Dr Rajkrishna Dutta**, Carnegie Fellow, Princeton University, USA, Mar 16, 2020



## SHORT COURSES

- Industrial Structural Design – Analysis and Design of Plate Girders, **Prof Gaurav Srivastava**, IITGN, Apr 1-20, 2019
- Cards and Combinatorics by **Prof Manish Jain**, **Prof Neeldhara Misra**, **Prof Anirban Dasgupta**, IITGN, Apr 6-7, 2019
- Exploring Geodesics, Polyhedra and their Extension in Designing Products by **Prof Manish Jain**, IITGN, Apr 8-10, 2019
- Voice Media and Communication by **Mr Shantanu Joshi**, In Tune Radio Network Pvt Ltd & WeKids Network, Apr 19-21, 2019
- Building Design for Fire and Life Safety by **Prof Gaurav Srivastava**, IITGN; **Abhay Purandare**, Fire Consultant; **Prof Anil Agrawal**, IIT Hyderabad; **Mr Sandeep Goel**, Proion Consultants; **Mr Brij Bhushan Singh**, Hilti India Pvt Ltd, June 26-29, 2019
- Juggling-based Mathematics and Algorithms by **Mr Mahit Warhadpande**, a Social Worker and Juggler, Aug 11-17, 2019
- Anthropology and Human Rights by **Dr Rosa Maria Perez**, IITGN, Aug 26-30, 2019
- Introduction to Statistical Analysis using Bayesian Inference by **Dr Arindam Bhattacharjee**, Werner Reichardt Center for Integrative Neuroscience in Tuebingen, Germany, Aug 29-31, 2019
- Foundations of State Estimation by **Dr Bala Natarajan**, Kansas State University, Sep 3-12, 2019
- Understanding Diversity by **Prof Shungo Kawanishi** and **Dr Kotona Motoyama**, JAIST, Sep 9-13, 2019
- FLY (Finding the Leader in You)-Scholar Program by **Dr Viraj Vora**, Soft Skills & Life Skills trainer; **Ms Uma Oza**, The National Stock Exchange (Gujarat), Sep 14-15, 2019
- Basics of Fire Engineering by **Prof Pravinray Gandhi**, Underwriter's Laboratory, USA; **Prof Gaurav Srivastava**, IITGN; **Prof Chinmay Ghoroi**, IITGN, Sep 18-19, 2019
- Differential Geometry for Engineers by **Prof Ravi N Banavar**, IIT Bombay, Oct 22-26, 2019
- Introduction and Some Applications of AdS/CFT by **Prof Arpan Bhattacharyya**, IITGN, Nov 7, 9, 11, 13, & 15, 2019
- Lasting Leadership by **Mr Mukul Pandya**, Knowledge@Wharton, Jan 5-9, 2020
- Soiling Effects on Solar Energy Generation by **Dr Mike Bergin**, Duke University; **Prof Chinmay Ghoroi**, IITGN; and **Prof Naran Pindoriya**, IITGN, Jan 6-10, 2020
- Meditation and the Mind by **Dr Srinivas Reddy**, IITGN, Jan 6-10, 2020
- Building Early-stage Startups and Valuations by **Mr B V Jagadeesh**, KAAJ Ventures, Jan 20-25, 2020
- Of Mosaic, Hybrids, and Braids - Seminar on Human Evolution by **Dr Yann-Pierre Montelle**, a behavioral archaeologist, Jan 20-28, 2020
- Nanostructured Materials for Solar Energy Applications by **Dr Andreas Schüler**, EPFL, Switzerland, Feb 15-20, 2020
- Landscapes of Memory by **Prof Amita Sinha**, formerly with the University of Illinois, Urbana Champaign, USA, Feb 10-14 & 17-19, 2020
- Immunology for Disease Pathogenesis and Drug Development by **Dr Narendra Chirmule**, SymphonyTech Biologics, Feb 14-16, 2020
- Social Media Marketing: Theory & Applications by **Prof Marcos Severo**, Federal University of Goiás, Brazil, Feb 24-28, 2020
- On the Origin of Species by **Dr Supreet Saini**, IIT Bombay, Mar 14-15, 2020

## INVITED LECTURES

- Application of Stem Cell-derived Hepatocyte-like Cells in Drug Discovery and Regenerative Medicine by **Dr Sunil Mallanna**, Boston Astellas Institute of Regenerative medicine, Apr 1, 2019
- Adventures in Happiness – Cycling to Bhutan by **Christopher Boyce**, Apr 3, 2019
- The Interaction of Globalization and Culture on Economic Performance by **Dr Sohini Sahu**, IIT Kanpur, Apr 8, 2019
- Ethics and Epics: A Civilizational Interrogation by **Dr Vineet Sahu**, IIT Kanpur, Apr 8, 2019
- Role of Microtubule Dynamics in Cell Division and Motility: Implications in Cancer Chemotherapy by **Prof Dulal Panda**, Chair Professor, IIT Bombay, Apr 8, 2019
- DNA Nanotechnology: Molecular Motors and Machines by **Dr Dinesh Chandra**, Ben-Gurion University, Israel, Apr 9, 2019
- Geometric Control of Mechanical Systems by **Ms Aradhana Nayak**, PhD Student, IIT Bombay, Apr 11, 2019
- Properties of the Quark-Gluon-Plasma from Collective Flow by **Prof Subrata Pal**, TIFR Mumbai, Apr 12, 2019
- Option Pricing in a Regime-switching Stochastic Volatility Model by **Dr Milan Kumar Das**, IITGN, Apr 12, 2019
- Talent Management for Intrapreneurs by **Dr Ashok Bhatia**, onNext Advisors LLP, Apr 14, 2019
- India, USA, China - In the Shifting Sands of Geopolitics by **Amb Ashok Sajjanhar**, Institute of Global Studies, Apr 15, 2019
- Elements to Enhance User Experience in Online and Offline Spaces by **Cira Evers**, LIGANOVA-The BrandRetail, Germany, Apr 18, 2019
- On Constancy of Second Co-ordinate of the Gonality Sequence by **Dr Sarbeswar Pal**, Indian Institute of Science Education and Research Thiruvananthapuram, Apr 18, 2019
- Scientists in Governance by **Prof Shrawan Kumar Acharya**, Jawaharlal Nehru University, New Delhi, Apr 18, 2019
- Geothermal Energy: A Quest for Energy Alternative by **Dr Bijaya Krushna Behera**, Exploration Geologist and Petrophysicist, Apr 18, 2019
- India's Emergence as a Super power - Security Imperatives by **Lt Gen (Rtd) Subrata Saha**, former Deputy Army Chief, Apr 18, 2019
- Attitude Tracking Control for Aerobatic Helicopters: A Geometric Approach by **Mr Nidhish Raj**, IIT Kanpur, Apr 22, 2019
- Diheme Enzyme MauG: Nature's Sniper for Long-range Electron Transfer by **Prof S P Rath**, IIT Kanpur, Apr 23, 2019
- Life Imprisonment in India: A Short History of a Long Imprisonment by **Mr Nishant Gokhale**, Bhasha Research and Publication Centre, Baroda, and Adivasi Academy, Apr 24, 2019
- Riemann Zeta Function (some conjectures and some results) by **Prof A Sankaranarayanan**, TIFR Mumbai, Apr 24, 2019
- Secant Bundles on Symmetric Power of Curves by **Dr Krishanu Dan**, Chennai Mathematical Institute, Apr 25, 2019
- Design Force Ratio Spectrum for Performance-Based Design in Case of Multiple Events by **Prof Vinay K Gupta**, IIT Kanpur, May 4, 2019
- Mesh-free Numerical Modeling for 'Problem-solving' in Geoscience by **Dr Pankaj K Mishra**, University of Hong Baptist University, Hong Kong, May 8, 2019
- Auto Exhaust Emission Control Technologies by **Mr R M Cursetji**, Sud-Chemie India Pvt Ltd, Vadodara, May 10, 2019
- Ground and Satellite Observations to Understand Land-Ocean-Atmosphere Coupling Associated with the Natural Hazards by **Prof Ramesh P Singh**, IIT Mandi, May 10, 2019

- In Silico Studies of Chemical and Biological Systems by **Prof Sudipta K Sinha**, IIT Ropar, June 7, 2019
- In the Quest of Seismic Safety of Stone Masonry Buildings in Mud Mortar by **Mr Jitendra Bothara**, Miyamoto International New Zealand Ltd, June 19, 2019
- Tossing Coins Inside Living Cells by **Prof Roop Mallik**, TIFR Mumbai, June 20, 2019
- Reconstruction of Equatorial Pacific and Indian Monsoon Climate at Holocene and Pliocene Time Scales – Implications for Past and Future Civilizations by **Prof Balaji Rajagopalan**, University of Colorado (CU), Boulder, USA, June 25, 2019
- Development of Over-the-loop Approaches for Ensemble Streamflow Prediction at Regional to National Scales to Support Water Management by **Dr Andy Wood**, National Center for Atmospheric Research (NCAR), Boulder, June 25, 2019
- Exploiting Cancer Cell Signaling and Metabolism: Implications for therapeutic Approach by **Dr Suman Mukhopadhyay**, Frederick National Laboratory for Cancer Research, June 26, 2019
- Effective Dynamics of a Quartic Oscillator by **Dr Bidisha Chakraborty**, ICTS, Bangalore, June 27, 2019
- Experimental Discovery of Grain Boundary Phase Transitions Unveiled by Atomistic Simulations by **Dr Christian Liebischer**, Max-Planck Institute, Germany, July 5, 2019
- Spinal Cord Injury: Using Combinational Therapies to Finding Cure by **Dr Anita Singh**, Widener University Chester, PA, USA, July 9, 2019
- Materials Science with Two Atomic Layers by **Prof P M Ajayan**, Rice University, USA, July 17, 2019
- Welcome Entanglements: Tracing Social Relations and 'Latent Commons' in Post-Earthquake Kachchh by **Prof Hanna Kim**, Adelphi University, New York, July 18, 2019
- Geometry of Scattering Amplitudes by **Prof Alok Laddha**, Chennai Mathematical Institute, July 22, 2019
- Data Science: The Good, the Bad and the Ugly by **Prof Jayant R Haritsa**, IISc Bangalore, Aug 5, 2019
- Promoting and Disseminating Science and Engineering to Society by **Dr Vasco Matos Trigo**, IITGN, Aug 7, 2019
- Shadow Liberation: Sexual Assault Prevention through Theatre by **Mr Evan Hastings**, Shadow Liberation, Aug 7, 2019
- Anomaly and Index Theorem by **Dr Arnab Rudra**, Abdus Salam International Center for Theoretical Physics (ICTP), Italy, Aug 8, 2019
- Random Walks and their Application in Exploring Networks and Ranking Objects by **Dr Shahrzad Haddadan**, Sapienza University of Rome, Italy, Aug 9, 2019
- Anomaly and Index Theorem by **Dr Arnab Rudra**, Abdus Salam International Center for Theoretical Physics (ICTP), Italy, Aug 9, 2019
- Disruptive Diagnostic Technology-Enabled Improved Public Health for the Developing World by **Prof Suman Chakraborty**, IIT Kharagpur, Aug 14, 2019
- Development of a Colorimetric Plasmonic Nanosensor for the Detection of Therapeutic Levels of Ionizing Radiation by **Dr Karthik S Pushpavanam**, Massachusetts Institute of Technology (MIT), USA, Aug 16, 2019
- Literature, Life and Caste Society by **Mr Yogesh Maitreya**, PhD research scholar, TISS, Mumbai, Aug 17, 2019
- Overlapping Intermediation in Science Communication for Lay Publics by **Dr Vasco Matos Trigo**, IITGN, Aug 19, 2019
- Zeros on the Critical Line by **Prof Akshaa Vatwani**, IITGN, Aug 20, 2019
- Upakāra: The Theory of Spiritual Service and Women's Inheritance in the Dāyabhāga by **Dr**



- Manomohini Dutta**, Ahmedabad University, Aug 21, 2019
- Beyond Control: Enabling Smart Thermostats for Leakage Detection by **Mr Milan Jain**, Indraprastha Institute of Information Technology Delhi (IIITD), Aug 21, 2019
  - Infinite Vision: Story Of Greatest Business Case For Compassion by **Dr Aravind Srinivasan**, Aravind Eye Care Systems, Tamil Nadu, Aug 23, 2019
  - How to Respect Academic & Scholarly Integrity using Citation Management Tools by **Dr Maria João Amante**, formerly with ISCTE-IUL, Aug 26, 2019
  - Human Resonance Theory by **Dr Derek Lomas**, Delft Institute for Positive Design, Aug 27, 2019
  - New Frontiers in Stochastic Modeling of Smart Distribution Grids by **Prof Bala Natarajan**, Kansas State University, Aug 27, 2019
  - High-Speed Rail (HSR) & Related Research Projects by **Dr Norimichi Kumagai**, Railway Technical Research Institute (RTRI), Japan, and **Shri Achal Khare**, National High-Speed Rail Corporation Ltd (NHSRCL), Aug 27, 2019
  - Converging Technologies and Hybrid Nanomaterials for Biotechnological Applications by **Dr Chandrashekhar Kulkarni**, University of Central Lancashire, Preston, UK, Aug 28, 2019
  - Guarding Polygons via CSP by **Dr Akanksha Agarwal**, Ben-Gurion University of the Negev, Beer-Sheva, Israel, Aug 28, 2019
  - Fermat's Two Square Theorem by **Prof Indranath Sengupta**, IITGN, Aug 28, 2019
  - Indianising Goa. Women and the Nationalist Movement by **Prof Rosa Maria Perez**, ISCTE-University Institute of Lisbon, Sep 3, 2019
  - Complexity, Design, and Culture: Where Are the Next Indian Inventions? by **Prof Nuno Guimarães**, ISCTE-University Institute of Lisbon, Sep 4, 2019
  - Continuous Function Calculus and its Applications, **Prof Bipul Saurabh**, IITGN, September 4, 2019
  - Why Should Physicists Think About Biology? by **Prof Gautam Menon**, Ashoka University, Sep 6, 2019
  - Science Communication with the Media: Do's and Don'ts by **Dr Vasco Matos Trigo**, IITGN, Sep 7, 2019
  - Vision of Sagarmala and the Role of SDCL by **Shri Dilip Kumar Gupta**, Sagarmala, Development Company Limited (SDCL), Sep 7, 2019
  - Forecasting Crude Oil Futures Prices using the Kalman Filter and Macroeconomic News Sentiment by **Prof Pareshe Date**, Brunel University, UK, Sep 11, 2019
  - Mental Health Awareness and Suicide Prevention by **Dr Meenakshi Gupta**, Psychotherapist, Sep 12, 2019
  - Living a Purposeful Life by **Mr Asif Ebrahim**, Learners Conclave, Sep 12, 2019
  - Composing Actor Networks and Collective Action for Community Based Climate Change Adaptations in Coastal India by **Prof Thomson Kaleekal**, Cochin University of Science and Technology (CUSAT), Sep 13, 2019
  - Exploring the Potential of Iron-bearing Minerals for Sustainable Contaminant Remediation and Water Treatment Systems, **Dr Anke Neumann**, Newcastle University, Sep 13, 2019
  - The Food-water Quality Nexus in Periurban Aquacultures Downstream of Bangkok, Thailand by **Prof David Werner**, Newcastle University, Sep 17, 2019
  - Synthesis of Nano and Meso-porous Materials: Understanding the Kinetics and Porosity Development by **Dr Ateeque Malani**, IIT Bombay, Sep 18, 2019
  - Superimposing Theta Structure on a Generalized Modular Relation by **Prof Atul Dixit**, IITGN, Sep 18, 2019
  - Introduction to High Entropy Alloys by **Prof Rajiv S Mishra**, University of North Texas, Sep 19, 2019
  - Topology and Symmetries in Condensed Matter Physics - Graphene: A Paradigm by **Prof Saurabh Basu**, IIT Guwahati, Sep 20, 2019
  - How to Use Grammarly to Improve Writing by **Jagadesh V**, Bridge People Technology Solutions Pvt Ltd, Sep 20, 2019
  - Quantum Hall effect by **Prof Saurabh Basu**, IIT Guwahati, Sep 21, 2019
  - Superconductivity by **Prof Saurabh Basu**, IIT Guwahati, Sep 21, 2019
  - Filling the Knowledge Gap on Air Quality in Indian Cities by **Dr Sarath Guttikunda**, UrbanEmissions, Sep 24, 2019
  - The New Education Policy 2019: Possibilities and Challenges by **Prof Jaison Manjaly**, IITGN, Sep 25, 2019
  - Spin-filtering and Rectification in Graphene-based Lateral Heterostructures by **Dr Sudipta Dutta**, IISER Tirupati, Sep 27, 2019
  - Computational Study of Effect of Grafting Density on Local Dynamics in Functionalized Polymer Grafted Nanoparticle Systems by **Dr Balaji Iyer**, IIT Hyderabad, Oct 11, 2019
  - Translating Carbohydrate Information into a Function for the Clathrin-independent Construction of Endocytic Pits, **Prof Ludger Johannes**, Institut Curie, Paris, Oct 11, 2019
  - Reshaping Adolescents' Gender Attitudes: Evidence from a School-based Experiment in India by **Prof Tarun Jain**, IIM Ahmedabad, Oct 16, 2019
  - Kalman Filter-based Real-Time Continuous Glucose Monitoring (CGM) System, **Dr Abhinoy Kumar Singh**, IIT Indore, Oct 17, 2019
  - Advanced Spray and Jet Cooling for New Materials and Technologies by **Prof Vladan Prodanovic**, University of British Columbia (UBC), Canada, Oct 17, 2019
  - An Introduction to Weil Conjectures by **Prof Arnab Saha**, IITGN, Oct 17, 2019
  - Design, Function and Utilization of Surface Coatings for Mitigating Battery Degradation by **Dr Rosy Sharma**, Bar Ilan University, Israel, Oct 18, 2019
  - In-process Discontinuity Detection during Friction Stir Welding by **Dr Amber Shrivastava**, IIT Bombay, Oct 21, 2019
  - Overdetermined Problems for Nonlocal Operators by **Dr Anup Biswas**, IISER Pune, Oct 23, 2019
  - (Re)locating Early Kashmir: From Unique History to Connected Histories by **Dr Shonaleeka Kaul**, Jawaharlal Nehru University, New Delhi, Oct 30, 2019
  - What Makes a Complex Exact? by **Dr Joydip Saha**, IITGN, Oct 30, 2019
  - Neuroscience, Ethics and Morality by **Mauktik Kulkarni**, Neuroscientist, author, entrepreneur, Nov 1, 2019
  - Universal Basic Income and Land Rights for Women: An Anti-Capitalist Critique by **Prof Nivedita Menon**, Jawaharlal Nehru University, New Delhi, Nov 4, 2019
  - Finding the Voice of the River by **Prof Gary Brierley**, University of Auckland, Nov 4, 2019
  - Lamin Dynamics during Cellular Differentiation by **Prof Sreenivasulu Kurukuti**, University of Hyderabad, Nov 5, 2019
  - Living with Ramanujan for 40+ years - Public Lecture on Srinivasa Ramanujan by **Prof Bruce C Berndt**, formerly with University of Illinois, Urbana-Champaign, USA, Nov 5, 2019
  - Large Scale CFD Modeling of Gas-particle Flows in Fluidized Beds by **Dr Vikrant**, Delft University of Technology, Nov 6, 2019
  - The Final Problem by **Prof Bruce C Berndt**, formerly with University of Illinois, Urbana-Champaign, USA, Nov 6, 2019
  - New Lessons for QFTs from CFTs by **Prof Aninda Sinha**, Nov 8, 2019
  - The Psychic Need for Death Drive by **Dr Jhuma Basak**, Indian Psychoanalytical Society, Nov 8, 2019
  - The Development, Implementation and Impact of Ahmedabad Heat Action Plan and its Scaling to National Level by **Prof Dileep Mavlankar**, Indian Institute of Public Health-Gandhinagar (IIPHG), Nov 11, 2019
  - Discontinuity Induced Bifurcations in Nonlinear Oscillators with Discontinuous Nonlinearities by **Prof S Narayanan**, Indian Institute of Information Technology Design & Manufacturing Kancheepuram, Nov 12, 2019
  - Helicobacter Pylori and Humans: an Ancient Association by **Prof D N Rao**, IISc Bangalore, Nov 13, 2019
  - Nobel Prize in Physics 2019 -- Physical Cosmology and Exoplanets by **Prof Raghavan Rangarajan**, Ahmedabad University, Nov 14, 2019
  - Two-dimensional Layered Materials, Devices and Applications by **Prof Saurabh Lodha**, IIT Bombay, Nov 15, 2019
  - Light Field Displays by **Dr Nikhil Balram**, Google LLC, Nov 15, 2019
  - Force Transmission and Mechanosensitivity at Cell-Extracellular Matrix Interface by **Dr Abhishek Kumar**, MBI-NUS Singapore, Nov 19, 2019
  - A New Link between Rational Dynamics and Kleinian Groups by **Prof Sabyasachi Mukherjee**, TIFR Mumbai, Nov 19, 2019
  - Hybrid Inorganic/Organic Materials for MRI Contrast by **Prof Dan Talham**, University of Florida USA, Nov 20, 2019
  - Water in Earth: Storage, Origin and Role in Volcanism by **Prof Jibamitra Ganguly**, University of Arizona, USA, Nov 20, 2019
  - AI for Social Good by **Dr Alpan Raval**, Wadhvani Institute for Artificial Intelligence, Nov 20, 2019
  - Thought Leadership by **Mr Ankush Minocha**, TedX speaker, Nov 21, 2019
  - Friction Stir Processing of Beta Titanium Alloys: Challenges and Opportunities by **Dr Aniket Dutt**, Nov 22, 2019
  - Engineering Thermal Conduction in Semiconductor Nanostructures by **Dr Abhinav Malhotra**, University of Delaware, USA, Nov 22, 2019
  - Understanding Complex Geochemical Reactions Insights from High Pressure-temperature In-situ Synchrotron Experiments by **Mr Alok Chaudhari**, Monash University, Melbourne, Nov 23, 2019
  - A Novel Quantitative Approach for Understanding Strain Level Microbiota Dynamics after Fecal Transplantation for Several Diseases by **Dr Varun Aggarwala** and **Dr Ankita Bansal**, Mt Sinai School of Medicine, Nov 25, 2019
  - Has Modern ML been a Game Changer for Robotics by **Prof K Madhava Krishna**, IIIT Hyderabad, Nov 25, 2019
  - Theoretical Study of the Reactivity of Complex Systems: From Biochemical Reactions to the Description of Interfacial Water at Graphene Oxide Surface by **Prof Anne Millet**, University of Grenoble Alpes, France, Nov 25, 2019
  - Fair Division of Indivisible Items by **Dr Rohit Vaish**, Rensselaer Polytechnic Institute, New York, USA, Dec 6, 2019
  - Abrupt Climate Anomalies Recorded in Lacustrine and Marine Sediments during the Quaternary by **Dr Yama Dixit**, Earth Observatory of Singapore Nanyang Technological University, Dec 11, 2019
  - Topological Metamaterials: Emerging Trends in Manipulating Mechanical Waves by **Dr Rajesh Chaunsali**, Laboratoire d'Acoustique de l'Université du Maine, CNRS, France, Dec 12, 2019
  - Transformational Leadership -- The Bold and Humble Leader by **Dr Beheruz Sethna**, formerly with the University of West Georgia, Dec 13, 2019
  - Why is Indian Traditional Technology Relevant Today? by **Prof D P Mishra**, IIT Kanpur, Dec 14, 2019
  - Revealing Architectural Order with Label-free Imaging and Deep Learning by **Dr Shalin Mehta**,

- Chan Zuckerberg Foundation, UCSF, Dec 16, 2019
- Overview of Amyloidosis and a Clinician's Perspective in the Indian Context by **Prof Ashwani Thakur**, IIT Kanpur, Dec 17, 2019
  - Einstein's legacy: Songs from the Stellar Graveyard by **Dr Avirup Ghosh**, Max Planck Institute (AEI), Dec 17, 2019
  - Graphene Coatings: A Disruptive Approach to Durable Corrosion Resistance by **Prof Raman Singh**, Monash University (Melbourne), Australia, Dec 18, 2019
  - Corrosion-Fatigue in Metal Systems through Multiscale Discrete Models by **Prof Ramana Pidaparti**, University of Georgia, Athens, USA, Dec 18, 2019
  - Characterisation of All Inputs for State Transfer by **Prof Priyadarshan Hari**, Indian Institute of Space Science and Technology (IIST), Thiruvananthapuram, Dec 19, 2019
  - Forcing Vision + Language Models To Actually See, Not Just Talk by **Prof Devi Parikh**, Georgia Tech, Dec 20, 2019
  - Habitat: A Platform for Embodied AI by **Prof Dhruv Batra**, Georgia Tech, Dec 20, 2019
  - Role of Fluid Convection in Fusion Welding by **Prof Gour Gopal Roy**, IIT Kharagpur, Dec 20, 2019
  - Diverse Functions of Molecular Motors: From Mitosis to Cellular Transport to Microtubule Organization by **Dr Manas Chakraborty**, University of Warwick, Dec 20, 2019
  - Synthesis of B2 Aluminides (FeAl and NiAl) using Spark Plasma Sintering and their High Temperature Deformation by **Dr Niraj Chawake**, Austrian Academy of Sciences, Leoben, Austria, Dec 27, 2019
  - Learning for Numerical Geometry by **Mr Gautam Pai**, Israel Institute of Technology, Haifa, Israel, Jan 2, 2020
  - MALTS - Matching After Learning to Stretch by **Mr Harsh Parikh**, Duke University, USA, Jan 3, 2020
  - Information and Q/A Session on CAA (Citizenship Amendment Act) and NRC (National Register of Citizens) by **Mr Anurag Bhaskar**, Jindal Global Law School, Sonapat, Haryana, and **Mr Jahnu Bhardwaj**, IITGN, Jan 4, 2020
  - Anomaly Detection in Static Networks using Egonets by **Prof Srijan Sengupta**, Virginia Tech, Jan 6, 2020
  - Transnational Solidarities: Civil Rights in the US and India by **Dr Susan Thomas**, Syracuse University, USA, and **Mr Anurag Bhaskar**, Jindal Global Law School, Sonapat, Haryana, Jan 6, 2020
  - Air Quality Improvements using Dynamic Source Identification supported by Dense Network of Sensors by **Prof Sachidanand Tripathi**, IIT Kanpur, Jan 6, 2020
  - Robot Design for Everyone -- Computational Tools that Democratize the Design of Robots by **Dr Ruta Desai**, Facebook Reality Labs (FRL), Jan 7, 2020
  - Microsecond Conformational Dynamics of Biopolymers Studied by Two-dimensional Fluorescence Lifetime Correlation Spectroscopy (2D FLCS) by **Dr Bidyut Sarkar**, Riken, Wako, Japan, Jan 7, 2020
  - Why Include Humanities in Educating Engineers and Other Professionals as Leaders? by **Prof Shyam Sunder**, Yale University, Jan 7, 2020
  - Generating Steady State Coherence a Solid State Qubit using Quantum Noise from Phonons by **Dr Archak Purkayastha**, Trinity College, Dublin, Jan 9, 2020
  - Physics, Biology, Social Sciences and Decisions by **Prof Shyam Sunder**, Yale University, Jan 9, 2020
  - Fit-for-Purpose Driven Innovation & Engineering for Wastewater Treatment and Reuse by **Dr Vijay Sai**, Suez Water, Jan 10, 2020
  - Swami Vivekanand's Principles and their Relevance in the Current Era and Youth by **Dr Maunas Thaker**, Vivekanand Kendra, Kanyakumari, Jan 12, 2020
  - Operation and Protection of Future Electric Power Systems by **Prof Campbell Booth**, University of Strathclyde in Glasgow, Scotland, Jan 13, 2020
  - Structure-based Function and Regulation of a Multi-enzyme Complex by **Prof Mulchand Patel**, Sunny Buffalo University, Jan 13, 2020
  - Black Hole Second Law from large  $\$D\$$  membranes by **Dr Arunabha Saha**, University of Geneva, Jan 14, 2020
  - Success Strategies for Students by **Prof Claire Smith**, Flinders University, Jan 14, 2020
  - Magnetic Particle Imaging: Translating Materials Science to Medicine by **Prof Kannan M Krishnan**, University of Washington, Seattle, USA, Jan 16, 2020
  - Compact Binary Coalescences: Constraints on Waveforms by **Mr Neev Khara**, Penn State University, Jan 16, 2020
  - Portable Neuroimaging of the Recovery of Consciousness after Acute Brain Injury by **Dr Anirban Dutta**, University at Buffalo SUNY, USA, Jan 17, 2020
  - Continuous-variable Quantum Repeaters based on the Quantum Scissors and Mode Multiplexing by **Dr Kaushik Seshadreesan**, University of Arizona, Tucson, Jan 21, 2020
  - Algebraic Geometry Meets Artificial Intelligence: Predicting Fixed Points of Group Actions by **Mr Kuntal Banerjee**, IITGN, Jan 22, 2020
  - A Vyavastha for Votes: Analysing the Meanings of Vote-buying Practices in Indian Elections by **Dr Sarthak Bagchi**, Ahmedabad University, Jan 22, 2020
  - Stress and the Hippocampus: a Neurophysiological Perspective by **Dr Anupratap (Pratap) Tomar**, University of Bristol, Jan 23, 2020
  - MANAV- The Human Atlas Initiative: Training and Project Awareness Session by **Dr Dhara Lakhkar**, IISER, Pune, Jan 23, 2020
  - 50 years of Triple-Deck Theory by **Prof Jitesh Gajjar**, University of Manchester, Jan 24, 2020
  - Cold Heating and Perfecting Imperfection for CO<sub>2</sub> to Fuel Conversion by **Prof Vivek Polshettiwar**, TIFR Mumbai, Jan 24, 2020
  - Using the TEM and the Journal of Materials Science: Aimed towards students by **Prof Barry Carter**, University of Manchester, UK, Jan 29, 2020
  - Progressive Urdu Poetry by **Prof Mohd Mubashshir Ahsan**, IITGN, Jan 29, 2020
  - Singular Elliptic Equations with Quadratic Gradient Term by **Mr Dharmendra Kumar**, IITGN, Jan 29, 2020
  - Transformative Harmony by **Dr Ananta K Giri**, Madras Institute of Development Studies, Feb 3, 2020
  - Neuronal Diabetes and Alzheimer's disease: Side by Side? by **Prof Chinmoy Sankar Dey**, IIT Delhi, Feb 5, 2020
  - Fulbright Fellowship Opportunities to the US by **Dr Ryan Apolin Pereira**, United States-India Educational Foundation, Mumbai, Feb 6, 2020
  - High-Temperature Fatigue of Continuous SiC Fibre Reinforced Titanium Alloy Matrix Composite by **Prof Bhanu Sankara Rao**, University of Hyderabad, Feb 6, 2020
  - From Moonshine to Mock Moonshine by **Dr Kishore Marathe**, City University of New York, Feb 7, 2020
  - Promoting French Language and Culture Across India by **Sir Gael De Kerguenec**, Alliance Française of Ahmedabad, Feb 11, 2020
  - Reflections on the Languages of Coaching by **Dr Chaise Ladousa**, Hamilton College in New York, Feb 12, 2020
  - Combinatorial Properties of Sparsely Totient Numbers by **Dr Pramod Eyyunni**, IITGN, Feb 12, 2020
  - Pathobiology of Myo-inositol Oxygenase in Diabetic Kidney Disease by **Dr Isha Sharma**, Northwestern University, USA, Feb 13, 2020
  - From Egg Shell to "I shall": Mahler and The Psychological Birth of The Human Child by **Dr Apurva Shah**, Antelope Valley Kaiser Permanente, Southern California, Feb 13, 2020
  - Neural Basis of Memory by **Dr Niranjan Kambi**, University of Wisconsin, Madison, Feb 19, 2020
  - Fighting Icing and Making Emulsions using Condensation by **Dr Sushant Anand**, University of Illinois, Chicago, Feb 20, 2020
  - Smart Network of Universities: Deploying Technology 4.0 for SDGs by **Rajendra M Shende**, TERRE Policy Centre Pune, Feb 20, 2020
  - The Magic Number Four by **Prof Harald Upmeyer**, University of Marburg, Germany, Feb 20, 2020
  - A Vision for Green and Sustainable Education at the University of Pittsburgh at Johnstown by **Dr Manisha Nigam**, University of Pittsburgh, Johnstown, Feb 21, 2020
  - Toeplitz-Berezin Quantization, Automorphic Forms and Operator Algebras by **Prof Harald Upmeyer**, University of Marburg, Germany, Feb 21, 2020
  - Decoding the Temozolomide induced DNA damage repair-The story of XAB2 in Glioblastoma brain cancer by **Dr Abhishek Sharma**, Luxembourg Institute of Health, Luxembourg, Feb 24, 2020
  - Technoscience and Transhumanism: an Existential Paradigm-shift by **Prof Bijoy H Boruah**, IIT Ropar, Feb 25, 2020
  - Perception and Encoding of Odour Temporal Dynamics in the Mouse Olfactory Bulb by **Dr Debanjan Dasgupta**, Physiology and Pharmacology of University College London (UCL), Feb 26, 2020
  - Non Negative Solution to Fractional Keller-Segel System by **Dr A Akilandeewari**, IITGN, Feb 26, 2020
  - Enhancement of Bioactive Molecules with DNA-templated Oligovalence by **Prof David Smith**, Fraunhofer Institute for Cell Therapy and Immunology IZI, Germany, Feb 27, 2020
  - Avatars of Gravity by **Prof Thanu Padmanabhan**, IUCAA, Pune, Feb 27, 2020
  - Impossible Fiction: Possible worlds and literary theory by **Prof Bijoy H Boruah**, IIT Ropar, Feb 27, 2020
  - Artificial Enzymes for the Regulation of Biological Processes by **Prof Mughesh**, IISc Bangalore, Feb 28, 2020
  - Anomalous Transport through the Algebraically Localized States in 1D by **Dr Madhumita Saha**, IITGN, Feb 28, 2020
  - Dharma: The Soul of India by **Ms Nivedita Bhide**, Vivekananda Kendra, Kanyakumari, Mar 1, 2020
  - Materials under Extreme Pressure Conditions: Implications for Exoplanet Mineralogy by **Dr Rajkrishna Dutta**, Princeton University, NJ, USA, Mar 16, 2020







# VISITORS

- **Amb V Ashok**, Indian Foreign Service (retd), visited IITGN on Apr 15, 2019.
- **A delegation from JAIST** visited the Institute on May 20, 2019 to discuss the collaboration between IITGN and JAIST. **Prof Tetsuo Asano**, President, JAIST, presided the meeting.
- British Deputy High Commissioner **Mr Peter Cook** visited IITGN on May 31, 2019.
- **Mr Kris Gopalakrishnan**, Chairman Axilor Ventures and Co-founder of Infosys, visited the Institute on June 2, 2019.
- **Prof Nasir Memon**, Professor of Computer Science and Engineering at the New York University Tandon School of Engineering, visited IITGN on June 3, 2019.
- **Dr Swati Piramal**, Vice-Chairperson, Piramal Group, and Director of Piramal Enterprises, visited IITGN on July 27, 2019, and graced the 8th Convocation Ceremony of the Institute as the Chief Guest.
- **Shri Ravi Shankar Prasad**, Hon'ble Union Minister for Law and Justice, Communication and Electronics and Information Technology, inaugurated NASSCOM Centre of Excellence - IoT & AI at the Research Park of IITGN on Sep 11, 2019. He also interacted with start-ups and IT industry leaders from Gujarat.
- New Jersey **Governor Phil Murphy** visited IITGN on Sep 21, 2019, and participated in a Town Hall and a Q&A with IITGN students and the community. Gov Murphy was accompanied by his wife, **First Lady Tammy Murphy**, and a trade and educational delegation.
- Union Minister of Human Resource Development, **Dr Ramesh Pokhriyal 'Nishank'** visited IITGN on Nov 10, 2019, and held a meeting with **Prof Sudhir K Jain**, Director, IITGN, and other faculty members of the Institute.
- A Canadian delegation led by **Mr Fred Eisenberger**, Mayor of the city of Hamilton (Ontario, Canada), visited the Institute on Nov 18, 2019. The delegation included several administrators from the city of Hamilton; McMaster University, Ontario; and Mohawk College, Hamilton; who held a meeting with IITGN faculty members to discuss future collaborations between the institutes in academic and research spheres.
- **Visits By Educational Institutes:** IITGN hosted several student

groups from institutions across India, including Gateway College of Architecture and Design, Sonapat; Parul University, Vadodara; Anant School of Architecture, Ahmedabad; Indus University, Ahmedabad; Nobel Foundation, Maharashtra; Shree Sarvajanic Kelavani Mandal, Mehsana; Gujarat Power Engineering and Research Institute (GPRI), Mehsana.

- Director of Alliance Française of Ahmedabad, **Dr Gael De Kerguenec** visited IITGN on Feb 11, 2020 to interact with students about opportunities for higher education and employment in France.
- **Prof Claire Smith**, an Archaeologist from Flinders University, Australia, visited IITGN in Jan 2020 for two months, accompanied by distinguished scholars **Dr Gary Jackson**, **Dr Ralph Jordan**; and her RA, **Mr Luke Rooney**.
- **Mr Kamalesh Dwivedi**, Business Partner, 3Lines Venture Capital, visited IITGN as a Mentor-in-Residence for start-ups and students during Jan 3-13, 2020.
- **Mr Atul Jain**, Founder & CEO, TEOCO, visited IITGN and interacted with faculty, student leadership team, and start-up owners on Jan 29, 2020.

## RODDAM NARASIMHA LECTURE SERIES



The 8th Roddam Narasimha Distinguished Lecture was delivered on Aug 5, 2019, by **Prof Jayant R Haritsa**, a data Scientist and Professor in the Department of Computational & Data Sciences at IISc Bangalore, on the topic of 'Data Science: The Good, the Bad and the Ugly'.

## 2ND DECENNIAL LECTURE



IITGN organised the 2nd lecture under the IITGN Decennial Lecture Series on Apr 18, 2019. Former Deputy Chief of the Army and currently Member of the National Security Advisory Board (NSAB), **Lt Gen Subrata Saha (Retd)** delivered his talk on 'India's Emergence as a Superpower – Security Imperatives'.

## 3RD IITGN DECENNIAL LECTURE



The 3rd decennial lecture under the IITGN Decennial Lecture Series was delivered by **Dr Aravind Srinivasan**, Director, Aravind Eye Care Systems, Tamil Nadu, on Aug 23, 2019. He gave a talk on 'Infinite Vision: Story of Greatest Business Case for Compassion'.

## GIAN COURSE

**Dr Rajiv S Mishra**, University Distinguished Research Professor at the University of North Texas, USA, conducted a GIAN Course on 'Microstructural Evolution during Friction Stir Processing' from Sep 16-21, 2019. Faculty and students from various IITs, NITs, and engineering colleges, and researchers from industry and government R&D organisations participated in this course. The course was coordinated by **Prof Amit Arora**.





# RESEARCH & FACULTY ACTIVITIES



## AWARDS AND RECOGNITIONS

Following faculty members of IITGN received special awards and recognition from external bodies during 2019-20:

**Prof Vimal Mishra**, Associate Professor, Civil Engineering, has been selected for the National Geophysical Research Institute (NGRI)-Association of Hydrologists of India (AHI) **Young Hydrologist Award** for the year 2015-16.

**Prof Kabeer Jasuja**, Assistant Professor, Chemical Engineering, has been selected as the **Associate of the Indian Academy of Sciences**.

**Prof Jaichander Swaminathan**, Assistant Professor, Mechanical Engineering, has been selected as the **2019 International Desalination Association (IDA) Fellow**.

**Prof Vikrant Jain**, Professor, Earth Sciences, received the prestigious **National Geoscience Award** for the year 2018 in

the category of Applied Geosciences by the Ministry of Mines, Government of India.

**Prof Pranab Mohapatra**, Professor, Civil Engineering, has been awarded the **Visiting International Fellowship** of The Environmental and Water Resources Institute (EWRI), American Society of Civil Engineers, for the year 2020.

**Prof Dhiraj Bhatia**, Assistant Professor, Biological Engineering, received the **Merck Young Scientist Award**.

**Prof Himanshu Shekhar**, Assistant Professor, Electrical Engineering, was awarded the **Star Ambassador Lectureship Award** for 2020 from IEEE Ultrasonics, Ferroelectrics, and Frequency Control Society.

## FACULTY EXCELLENCE AWARDS

The following faculty members were awarded the Faculty Excellence Awards for the year 2018-19 for their exemplary work in teaching, research, institution building, and outreach activities.

1. **Prof Atul Dixit**, Excellence in Teaching Award
2. **Prof Arnab Dutta**, Excellence in Research
3. **Prof Gaurav Srivastava**, Excellence in Institution Building
4. **Prof Neeldhara Misra**, Excellence in Outreach Activities





# DISTINGUISHED HONORARY PROFESSOR

## PROF SURENDRA PRASAD



Prof Surendra Prasad served IIT Delhi for over four decades in several academic and administrative capacities including the post of the director. He received the Vikram Sarabhai Research Award in Electronics and Telecommunications (1987), the Shanti Swarup Bhatnagar Prize for Engineering Sciences (1988), the

Om Prakash Bhasin Prize for Research in Electronics and Communications (1994), the VASVIK Award for Information Technology (2006), the Lifetime Achievement Award of the Systems Society of India (2011), the Distinguished Alumnus Award of IIT Kharagpur. He was also honored with an honorary doctorate by Loughborough University, UK in 2007. He is a Fellow of the Indian National Academy of Engineering, the Indian National Science Academy, the Indian Academy of Sciences and the National Academy of Science and has been a member of the governing body of CSIR and CSIR Society, Government of India and boards of many IITs, NITs and other engineering institutes.

## PROF S P SUKHATME



Prof Suhas P Sukhatme is a professor emeritus of IIT Bombay. He received his DSc (Doctor of Science) from Massachusetts Institute of Technology in 1964 and is widely known for his outstanding contributions to teaching and research. He is the author of two widely known text books on heat transfer and solar energy. He is

the recipient of many honours and awards including the Prince of Wales Gold Medal from BHU in 1958, the Shanti Swarup Bhatnagar Prize in 1983 and the Om Prakash Bhasin Foundation Award for Engineering in 2001. He was the first recipient of the Lifetime Achievement Award of IIT Bombay in 2001. He was conferred an honorary doctor of science degree by the Banaras Hindu University in 2001. He was awarded the Padma Shri by the Government of India in 2001.

## PROF NITISH THAKOR



Prof Nitish Thakor is a professor of biomedical engineering, electrical and computer engineering, and neurology at the Johns Hopkins University, and leads the Laboratory for Neuroengineering. He is also the director of the Singapore Institute for Neurotechnology at the National University of Singapore. He earned

his undergraduate degree from IIT Bombay in 1974 and a PhD from the University of Wisconsin, Madison in 1981. Prof Thakor is the recipient of the Centennial Medal from the School of Engineering, University of Wisconsin (2008), Honorary Membership from Alpha Eta Mu Beta Biomedical Engineering student Honor Society. He received the award of Technical Excellence in Neuroengineering from IEEE Engineering in Medicine and Biology Society and the Distinguished Alumnus Award in 2012 from IIT Bombay and the Centennial Medal from the University of Wisconsin, Madison School of Engineering in 2012.

# GUEST PROFESSOR

## PROF ANILKUMAR AMURTUR



Prof Anilkumar Amurtur is an aerospace engineer on the faculty at Vanderbilt University. He has been a NASA investigator of microgravity fluid flow phenomena on space shuttle flights and on the International Space Station. His research focus includes experimental fluid dynamics, rocket propulsion, drop and bubble dynamics, bio-encapsulation; energy conversion, wind, thermoelectrics, biodiesel; materials processing: float-zones, directional solidification.

## AMB V ASHOK



Amb V Ashok is currently senior advisor and fellow at the Garwood Center for Corporate Innovation, Haas School of Business, University of California, Berkeley

and manages UCB smart village programs in Arunachal Pradesh and Andhra Pradesh. He received a BTech in civil engineering from IIT Delhi in 1981. After serving in the Indian Foreign Service for more than 34 years at various positions, he retired in October 2018 as the Consul General of India, San Francisco, with the rank of Secretary to the Government of India. He has held diplomatic assignments in Indian Missions in Hong Kong, Malaysia, China, Austria, and Sri Lanka apart from postings at the Ministry of External Affairs in New Delhi. He was accredited as India's Ambassador to the Republic of Zimbabwe in 2007 and to the Czech Republic in 2011.

## DR NIKHIL BALRAM



Dr Nikhil Balram is currently leading display R&D for all Google hardware products (including AR/VR). Prior to Google, he has served as president and CEO

of Ricoh Innovations Corporation, a Silicon Valley company that develops innovative technologies and creates new businesses for Ricoh Company Ltd. He has won numerous awards including a 2012 Gold Stevie Award for Executive of the Year in the electronics category in the 9th Annual International Business Awards, a 2012 Fellow Award by the Society for Information Display (SID) and the 2011 Alumni Achievement Award by Carnegie Mellon University. Dr Balram is a visiting professor of vision science at the University of California, Berkeley, and serves on the Industry Advisory Board (IAB) at the School of Engineering at Santa Clara University.

## PROF RAVI BANAVAR



Prof Ravi Banavar is a professor in the Systems and Control Engineering group at IIT Bombay, a unique interdisciplinary group in the country exclusively offering

graduate education (masters and doctoral program) in the field. His research interests are in the area of geometric mechanics,

nonlinear and optimal control, locomotion with applications in aerospace, mechanical and microrobotics. He received his BTech from IIT Madras, MS from Clemson University and a PhD from the University of Texas, Austin. After a short stint as an instructor at the University of California, Los Angeles, he joined the Systems and Control group in IIT Bombay in 1993. He was the Pratt and Whitney Visiting Chair Professor in the Department of Aerospace Engineering at IISc from Jul-Dec 2015.

## MR HARSH BHARGAVA



Mr Harsh Bhargava is currently the president of Bankworld Inc, a prominent Washington DC based management consulting company, with experience in over

75 countries including leadership of projects on competitiveness strengthening in the emerging markets, entrepreneurship development programs for micro, small and medium enterprises (MSMEs). He received an MBA from the Harvard Business School in 1977. As the Vice President of a US Corporation, he set up businesses in over 60 countries and was awarded the US President's E Award for excellence in international business. Mr Bhargava is also the Founder and the President of I Create Inc, a nonprofit corporation, with centers in India and Kenya. He has written extensively on entrepreneurship as a career option for youth, and created training manuals and books on financial literacy and entrepreneurship. He is Chief Mentor and Director of a nationwide study on competitiveness mindset in India under the aegis of IITGN. He is also the Chief Mentor of Competitiveness Mindset Initiative, an entity set up at IITGN.

## DR ACHINTYA K BHOWMIK



Dr Achintya K Bhowmik is the chief technology officer and executive vice president of engineering at Starkey Hearing Technologies, a privately-held medical devices business

with operations in more than 100 countries worldwide. In this role, he is responsible for the company's technology strategy, global research, product development and engineering departments, and leading the drive to transform hearing aids into multifunctional wearable health devices with advanced sensors and artificial intelligence technologies. Prior to joining Starkey, Dr Bhowmik was vice president and general manager of the Perceptual Computing Group at Intel Corporation. Dr Bhowmik is an adjunct professor at Stanford University. He has received numerous awards and honors including TIME's Best Inventions, Artificial Intelligence Breakthrough Award, Red Dot Design Award, among others.

## DR R S BISHT



Dr R S Bisht, joint director general (retd), Archaeological Survey of India; has more than 35 years of experience in archaeological

research, conservation and environmental development of national monuments and administration. He has also been associated with the Department of Archaeology and Museum, Haryana; and Department of Archaeology and Museum, Punjab. Dr Bisht is currently the president of the Society for

Marine Archaeology and chairman of the National Screening and Evolution Committee, nominated by the Government of India in the Ministry of Culture. He is the recipient of the Padma Shri and Acharya Narendra Dev Alankar in 2013.

#### PROF RAJENDRA BORDIA



Prof Rajendra Bordia is currently professor and chair of the Department of Materials Science and Engineering at Clemson University. He has received prestigious awards including Humboldt Senior Scientist Research Award from the Alexander von Humboldt Foundation, Germany (2007); National Young Investigator Award (NSF) (1992-1997); DuPont Young Professor Award (DuPont) (1993-1996); International Expert Award from Technical University Hamburg, Germany (1996, 2001 and 2002). He was the sole recipient of the Marsha Landolt Distinguished Graduate Mentor Award from the University of Washington (2007) and was the sole recipient of the Outstanding Educator of the Year by the Ceramic Education Council of the American Ceramic Society (2012).

#### PROF R P CHHABRA



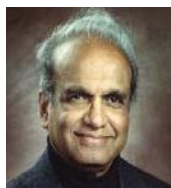
Prof R P Chhabra completed his BE in chemical engineering from the University of Roorkee, ME from IISc Bangalore and PhD from Monash University, Australia. He has been associated with IIT Kanpur; University of New South Wales, Sydney; University College of Swansea; Monash University, Clayton; and University of Sydney. He is a Fellow of the Indian National Science Academy, the Indian Academy of Sciences, Bangalore, the National Academy of Sciences, India and the Indian National Academy of Engineering. Prof Chhabra was the recipient of Herdillia Award of the Indian Institute of Chemical Engineers for Excellence in Basic Research in Chemical Engineering and the Amar Dye-Chem Award of the Indian Institute of Chemical Engineers for Excellence in Research and Development.

#### DR PRAVINRAY D GANDHI



Dr Pravinray D Gandhi is currently director of corporate research at the Underwriter's Laboratory (UL). He received his BTech from IIT Delhi and PhD from the University of Notre Dame. His focus is on quantifying fire risks and hazards and has been involved in developing new test methods and standards. He is currently working with the fire safety community and universities to improve fire science education.

#### PROF RAMESH GAONKAR



Prof Ramesh Gaonkar obtained an interdisciplinary PhD degree in instructional technology & electrical engineering from Syracuse University, Syracuse, New York. He has received numerous awards for his teaching and scholarly activities, including the American Society for Engineering Education (ASEE) Outstanding Teacher Award, St Lawrence Section (1984) the SUNY Chancellor's Award for Creative and Scholarly Activities (2003), the CNY Technology - Outstanding Teacher Award (2003), and the OCC Board of Trustees Award for Outstanding Contributions (1982, 1989 and 2007).

#### DR WALTER NILS HAKALA



Dr Walter Hakala is currently director of Asian Studies Program and Associate Professor at the Department of English at the University at Buffalo, USA. He did his BA from the University of Virginia; MA from Jawaharlal Nehru University, and PhD from the University of Pennsylvania. His research interests include Literature and languages of North India and Central Asia; lexicography; Mughal and early colonial South Asian history; and South Asian Islam, Sufism and epigraphy.

#### DR RAJEN JASWA



Dr Rajen Jaswa is an accomplished serial technology entrepreneur. His most recent role was that of CEO and chairman of Ddyno from 2009-2012. From 2003-2008, he volunteered full-time for TiE Silicon Valley, serving as president from 2005-2008 and as a director from 2003-2004. Dr Jaswa was the cofounder, chairman and CEO of Selectica from 1996-2002.

#### PROF ASHOK JOSHI



Prof Ashok Joshi is a professor in the Department of Aerospace Engineering at IIT Bombay. He has thirty years of experience in teaching, research & development and continuing education. He specialization in dynamics and control of flexible flight vehicles, modelling and simulation of multi-agent swarming behaviour, navigation and guidance, system architectures. He did his BTech and MTech (Aerospace Engineering) and PhD (Aerospace Engineering) from IIT Bombay. He is also a member of the Aeronautical Society of India (AeSI) and American Institute of Aeronautics & Astronautics (AIAA), USA. His recent projects include Collaborative Missions for Unmanned Aerial Systems.

#### PROF LILAVATI KRISHNAN



Prof Lilavati Krishnan retired from IIT Kanpur in 2014 from the Department of Humanities and Social Sciences. Prof Krishnan completed her PhD in June 1978 from McMaster University, Hamilton, Ontario, Canada. Her area of specialisation includes psychology (social psychology, personality; cross cultural psychology). She received the Distinguished Teacher Award, IIT Kanpur on Sep 5, 2003. She was the president, National Academy of Psychology (1998-99).

#### DR JORDAN LITMAN



Dr Jordan Litman is an associate professor at the University of Maine, Machias, USA; a Visiting Research Scientist at the Institute for Human and Machine Cognition, Florida, USA; and a Research Fellow of the Center For Curiosity, New York, USA. He did BA from Arcadia University, Glenside, Pennsylvania, and MA and PhD from the University of South Florida, Tampa. His research focuses on the study of curiosity and its relationship to knowledge seeking and self-directed learning.

#### DR V N PRABHAKAR



Dr V N Prabhakar is Director (excavations and explorations) at the Archaeological Survey of India. Dr Prabhakar received his PhD from Kurukshetra University and joined the Archaeological Survey of India in 1997. He served at various field offices of the ASI in Agra and Aurangabad, and later as superintending archaeologist at Aurangabad Circle and Excavation Branch, Delhi. Dr Prabhakar directed excavations at the Harappan sites of Rupnagar (2011-12) and Karanpura (2012-13 and 2013-14), and the medieval site of Daulatabad (2010), besides participating in excavations at Mehtab Bagh, Madarpur, Fatehpur Sikri, Sanauli (all four in Uttar Pradesh), Ellora (Maharashtra) and Kashipur (Uttarakhand).

#### PROF DURGESH C RAI



Prof Durgesh C Rai is a professor in the Department of Civil Engineering at IIT Kanpur. He received the 2000 Shah Family Innovation Prize from the Earthquake Engineering Research Institute (USA) and the Young Engineer Award from the Indian National Academy of Engineering (1999). He was elected as Fellow of Indian National Academy of Engineering in 2010. He is coordinator of National Information Centre of Earthquake Engineering (NICEE at IIT Kanpur and serves on the Board of World Seismic Safety Initiative (WSSI) of the International Association of Earthquake Engineering (IAEE).

#### PROF T R RAMACHANDRAN



Prof T R Ramachandran was the founder director of the Jawaharlal Nehru Aluminium Research Development and Design Centre (JNARDDC) during 1989-99. He was an Emeritus Scientist at the Nonferrous Materials Technology Development Centre, Hyderabad. He has served as part-time director of the National Aluminium Company (1991-93), Bharat Aluminium Company (1994-97), Paradeep Carbons (2002-2006) and presently Alufluoride. He was awarded the Hindustan Zinc Gold Medal in 1994 and the NALCO Gold Medal in 2006 by the Indian Institute of Metals.

#### PROF MYTHILY RAMASWAMY



Prof Mythily Ramaswamy is a professor in the school of mathematics at TIFR, Bangalore. She received the Fulbright Nehru Academic and Professional Excellence Fellowship, 2016-17. She was awarded the Kalpana Chawla Award for women scientists in 2004. She is a Fellow of the Indian Academy of Sciences, Allahabad, and serves on the Editorial Board of the Journal of Ramanujan Mathematical Society, Proceedings of Indian Academy of Sciences Mathematical Sciences and Boundary Value Problems. Currently she serves as a board member of IIT Gandhinagar and NIT Calicut Board of Governors and is a member of the IISERs standing committee.

#### PROF PRAMOD RASTOGI

Prof Pramod Rastogi is a guest professor at the École polytechnique fédérale de Lausanne, Switzerland. He received his MTech degree from IIT Delhi, and PhD from the University of Franche





Comté, France. He has edited/authored nine books in the fields of Holography, DSPI, Optical metrology & Digital Optical Signal Analysis with internationally reputed publishers. Prof Rastogi is the 2014 recipient of the SPIE Dennis Gabor Award. He is also a Member of the Swiss Academy of Engineering Sciences. He is also a recipient of the Hetényi Award for the most significant research paper published in Experimental Mechanics in the year 1982.

#### DR SRINIVAS REDDY



Dr Srinivas Reddy did BA in South Asian Studies from Brown University. He holds an MA and a PhD in South and Southeast Asian Studies from the University of California, Berkeley. Currently he is working as Teaching Associate for Applied Music Program – Sitar at Brown University. He has also published a book with Penguin Books India – Black Classics Series in 2010, titled as "Giver of the Worn Garland: Sri Krishnadevaraya's Amuktamalyada". He has advanced language training in reading and translation in Sanskrit, Pali, Telugu, Tamil. He is Founder and Artistic Director of Sadhana Foundation, a non-profit organisation dedicated to preserving and promoting the classical music of South Asia throughout the world.

#### PROF DHEERAJ SANGHI



Prof Dheeraj Sanghi is currently director of Punjab Engineering College, Chandigarh. Earlier than that he was professor of computer science and engineering at IIT Kanpur. He has also been a visiting faculty of computer science and engineering (2015-2017) at IIIT Delhi where he also served as the dean of academic affairs and the dean of external

relations. From 2008 - 2010, he was the Director, LNM Institute of Information Technology (LNMIIT), a public-private partnership University in Jaipur. He was the Dean of Academic Affairs at IIT Kanpur from 2011 to 2014. He has also served as the head of Prabhu Goel Research Center for computer and internet security, and also of the Institute computer center. Prof Sanghi has a BTech from IIT Kanpur, and MS and PhD from the University of Maryland. His research interests lie in computer networks and network security.

#### PROF SHYAM SUNDER

Prof Shyam Sunder is the James L Frank professor of accounting, economics, and finance at the Yale School of Management; professor in the Department of Economics; and Fellow of the Whitney Humanities Center. He is a world-renowned accounting theorist and experimental economist. His research contributions include financial reporting, information in security markets, statistical theory of valuation, and design of electronic markets. He is a pioneer in the fields of experimental finance and experimental macroeconomics. Prof Sunder has won many awards for his research that includes six books and more than 200 articles in the leading journals of accounting, economics and finance, as well as in popular media.

#### DR MAHESH TANDON



Dr Mahesh Tandon is an international expert in structural engineering. He has served as the president, Indian Association of Structural Engineers (2015-16) and president, Indian Society of Wind Engineering (2015-16). He is a Fellow of Indian National Academy of Engineering (INAE), the past chairman of the National Information Center for Earthquake Engineering at IIT Kanpur and the past president of Indian Concrete Institute.

#### DR CHAPIN THOMAS



Dr Chapin Thomas is the vice president of corporate research at the Underwriters Laboratories (UL) Inc, USA. His current work focuses on emerging trends in the areas of energy, materials and fire science. Before joining UL in 2001, Dr Chapin worked for 21 years at AT&T Bell Laboratories and three years at The Upjohn Company. He has more than 15 patents to his credit in the area of telecommunication and materials science. He was the past international chair of the International Electrotechnical Commission (IEC) Technical Committee (TC) 113 on "Nanotechnology Standardization for Electrical and Electronic Products and Systems". He is serving as the chairman, UL Fire Council since 2001. Dr Chapin received his BSc in Chemistry with Honours in 1974 from the University of Connecticut and a PhD in Polymer Chemistry in 1978 from the Institute of Materials Science at the University of Connecticut.

#### MR M VENKATARAMAN



Mr M Venkataraman obtained a BTech in civil engineering and MTech in soil mechanics and foundation from IIT Madras in 1971. From 1971-1980 he worked in quasi-government organisations to design, execute infrastructure projects. From 1980-1985, he worked as project manager for Swedish consultant for Middle East projects. In 1985, he joined Netlon India and started geosynthetics marketing in India and was involved in geosynthetics projects in roads, railways, ground improvement with Netlon and Tensar products. He retired as AVP from Garware in the year 2005. He has been working as a freelance geotechnical and geosynthetics consultant from 2013 onwards. Mr Venkataraman has written and published more than 50 technical papers in various geotechnical journals.



# SPONSORED RESEARCH PROJECTS

## PROJECTS SANCTIONED DURING 2019-20

- Design and synthesis of molecular probes for detection and imaging of protein aggregates. Principal Investigator: **Prof Sriram Kanvah**, Chemistry
- Brain functional connectivity in health and disease - under India-Trento Programme for Advanced Research. Principal Investigator: **Prof Krishna Prasad Miyapuram**, Cognitive Sciences
- Development of low-cost novel biomaterials for in-situ groundwater/soil remediation: A safe drinking water production perspective. Principal Investigator: **Prof Manish Kumar (Santanu Mukherjee)**, Earth Sciences
- Questions in analytic number theory - classical and number field setting. Principal Investigator: **Prof Akshaa Vatwani**, Mathematics
- Study the effects of small molecule mediated G-Quadruplex stabilization on induction of Autophagy in cell culture model of breast cancer. Principal Investigator: **Prof Bhaskar Datta (Piyali Majumdar)**, Biological Engineering
- Establishing Gujarat State Climate Change Center. Principal Investigator: **Prof Vikrant Jain**, Earth Sciences
- Curiosity to aid learning and motivation in Schools. Principal Investigator: **Prof Jaison Manajaly**, Humanities and Social Sciences
- Comparative study of soft error tolerant synchronous and asynchronous processors. Principal Investigator: **Prof Joycee Mekie**, Electrical Engineering
- Development of adaptive compression and distributed state estimation algorithms for future smart grids by accounting for uncertainties due to renewable energy sources: Demonstration of studies on the residential grid of IIT Gandhinagar. Principal Investigator: **Prof Babji Srinivasan**, Chemical Engineering
- Computational aspects of social choice: Theory and practice. Principal Investigator: **Prof Neeldhara Misra**, Computer Science and Engineering
- Development of Alt Mfg process for cooling channels in actively cooled Cu components using FSC. Principal Investigator: **Prof Amit Arora**, Material Science and Engineering
- Studying polymorphism in drug intermediates and their applications. Principal Investigator: **Prof Sivapriya Kirubakaran**, Chemistry; Co-PI: **Prof Vijay Thiruvengadam**, Biological Engineering
- Hit to lead chemistry for novel treatments of leishmaniasis. Principal Investigator: **Prof Sivapriya Kirubakaran**, Chemistry
- Complexation on the surface of metal halide perovskite nanocrystals for application as energy materials. Principal Investigator: **Prof Krishna Kanti Dey (Satyapriya Bhandari)**, Physics
- Transforming peri-urban spaces into exemplary live-work networks. Principal Investigator: **Prof Mona Mehta**, Humanities and Social Sciences
- Gandhipedia: A one-stop AI-enabled portal for browsing Gandhian literature, life-events and his social network. Principal Investigator: **Prof Mayank Singh** (As Co-PI), Computer Science and Engineering
- Assessing the concentrations and sources of indoor VOC's and particulate matter (PM) in urban India and Comparing to levels in China and the US. Principal Investigator: **Prof Chinmay Ghoroi**, Chemical Engineering
- Low-cost and non-electric water filter for point-of-use (POU) water disinfection. Principal Investigator: **Prof Chinmay Ghoroi**, Chemical Engineering
- Assessing the concentrations and sources of indoor VOC's and particulate matter (PM) in urban India and Comparing to levels in China and the US. Principal Investigator: **Prof Chinmay Ghoroi**, Chemical Engineering
- Water for change: Integrative and fit-for-purpose water sensitive design framework for fast-growing livable cities. Principal Investigator: **Prof Pranab Mohapatra**, Civil Engineering
- Developing of bio-inspired transition metal complex for efficient degradation of industrial dyes in wastewater under environment-friendly conditions. Principal Investigator: **Prof Arnab Dutta**, Chemistry
- Brine splitting for energy-efficient textile dyeing effluent reuse. Principal Investigator: **Prof Jaichander Swaminathan**, Mechanical Engineering
- Design and testing of robust and flexible 3D printed electrodes with novel porous architecture guided by graph theory and molecular simulations for high energy density applications. Principal Investigator: **Prof Mithun Radhakrishna**, Chemical Engineering
- Micronization and encapsulation of explosive by expansion of Co<sub>2</sub> - expanded solutions. Principal Investigator: **Prof Sameer Dalvi**, Chemical Engineering
- Ground motion modelling in active shallow crustal regions across India. Principal Investigator: **Prof Sanjay Singh Bora**, Earth Sciences
- Developing boron-based nanosheets reinforced polymer matrix for designing lightweight blast-resistant armors. Principal Investigator: **Prof Kabeer Jasuja**, Chemical Engineering
- Optimizing work fluctuations of quantum heat engines. Principal Investigator: **Prof B Prassana Venkatesh**, Physics
- Development of low cost-efficient and scalable materials for Co<sub>2</sub> capture using naturally available non-toxic stable materials and industrial solid wastes. Principal Investigator: **Prof Chinmay Ghoroi**, Chemical Engineering
- Developing Physics guided super-resolution approach and evaluation strategies for downscaling earth system model output. Principal Investigator: **Prof Udit Bhatia**, Civil Engineering
- Seismic performance assessment of a fixed-base and isolated generic Fast Reactor. Principal Investigator: **Prof Manish Kumar**, Civil Engineering
- Design Enablement of Self Aligned double polysilicon Emitter silicon bipolar transistor for RF applications. Principal Investigator: **Prof Nihar Ranjan Mohapatra**, Electrical Engineering
- Multicomponent seismic excitation: Characterization of design spectra and developing combination rule. Principal Investigator: **Prof Dhiman Basu**, Civil Engineering
- Mixing in electricity driven flows: Effects of Rheology. Principal Investigator: **Prof Uddipta Gosh**, Mechanical Engineering
- An engineering approach towards novel materials development for combinatorial therapy in Biomedical application. Principal Investigator: **Prof Superb K Misra**, Materials Science & Engineering
- Mathematical modeling and simulation of flame propagation in metal-liquid oxidizer energetic materials. Principal Investigator: **Prof Dilip Srinivas Sundaram**, Mechanical Engineering
- Estimating error probabilities due to multiple event transients in circuits designed for space applications based on electrical, temporal and logical masking. Principal Investigator: **Prof Joycee Mekie**, Electrical Engineering
- Control of linear instabilities in axisymmetric boundary layers. Principal Investigator: **Prof Vinod Narayanan**, Mechanical Engineering
- Fabrication of printable and flexible micro-Supercapacitors using liquid-phase exfoliated 2D materials. Principal Investigator: **Dr Siva Sankar Nemala** (NPDF) and **Prof Gopinadhan Kalon** (Mentor), Physics
- Development of small molecules to induce Mitochondrial damage by selectively perturbing anti-apoptotic Bcl-2 family proteins for next generation cancer chemotherapy. Principal Investigator: **Dr Sopan Valiba Shinde** (NPDF) and **Prof Sudipta Basu** (Mentor), Chemistry
- Continuous production of scaffolds for drug delivery and tissue regeneration applications using microbubbles in ionic liquid-biopolymer matrix. Principal Investigator: **Dr Mohit J Mehta** (NPDF) and **Prof Sameer Dalvi** (Mentor), Chemical Engineering
- Drives for electric vehicle applications. Principal Investigator: **Prof Ragavan Kanagaraj** and **Prof Naran Pindoriya** (Co-PI), Electrical Engineering
- Graph neural networks and their applications. Principal Investigator: **Prof Shanmuganathan Raman**, Electrical Engineering
- Network for scientific cooperation for food safety and applied nutrition. Principal Investigator: **Prof Bhaskar Datta**, Biological Engineering
- Multi-omic analysis to identify biomarkers to demarcate oral cancer and healthy tissue for margin clearance. Principal Investigator: **Prof Anirban Dasgupta**, Computer Science & Engineering, and **Prof Sharmistha Majumdar**, Biological Engineering (Co-PI)
- Fundamental limitations for unordered signal sensing in the presence of noise. Principal Investigator: **Prof Babji Srinivasan**, Electrical Engineering
- Design enablement of self aligned double poly silicon Emitter silicon bipolar transistor for RF applications. Principal Investigator: **Prof Nihar Ranjan Mohapatra**, Electrical Engineering

## SPARC AND STARS PROJECTS

- Materials for sustainable and energy efficient buildings, Ecole Normale Supérieure De Cachan, France. Principal Investigator: **Prof Atul Bhargava**, Mechanical Engineering
- Understanding the impact of air pollution on solar photovoltaics and developing surface engineered panel materials for improved performance of solar plants, Duke University, USA. Principal Investigator: **Prof Chinmay Ghoroi**, Chemical Engineering
- Development and application of geomorphic tool for sustainable management of a Himalayan river system, India, The University Of Auckland, New Zealand. Principal Investigator: **Prof Vikrant Jain**, Earth Sciences
- Advanced optimization strategies for efficient water and energy utilization in batch processes: case studies in pharmaceutical and textile industries, University Of The Witwatersrand, South Africa. Principal Investigator: **Prof Babji Srinivasan**, Chemical Engineering
- Analytical and computational study of nonlinear acoustic metamaterials, Technion - Israel Institute of Technology, Israel. Principal Investigator: **Prof Jayaprakash K R**, Mechanical Engineering
- Problems in analytic and combinatorial number theory, Queen's University at Kingston, Canada. Principal Investigator: **Prof Atul Dixit**, Mathematics
- Indigenous cultural heritage as a facilitator for the sustainable development goals, Flinders University, Australia. Principal Investigator: **Prof Alok Kumar Kanungo**, Humanities
- Study of locomotor adaptation using a single degree-of-freedom bilateral gait trainer, University of Texas at Austin, USA. Principal Investigator: **Prof Vineet Vashista**, Mechanical Engineering
- Assessing gait and balance during walking using



- body-worn sensors, Columbia University, USA. Principal Investigator: **Prof Vineet Vashista**, Mechanical Engineering
- NIR porphyrin-microbubbles as multi-colour molecular imaging probes. Principal Investigator: **Prof Sameer Dalvi**, Chemical Engineering
  - Development of a novel vacuum based process for producing porous metal structures. Principal Investigator: **Prof Abhay Raj Singh Gautam**, Materials Science and Engineering
  - VR-based exergaming platform in conjunction with neuroimaging guided non-invasive electrical stimulation. Principal Investigator: **Prof Uttama Lahiri**, Electrical Engineering
  - High-performance numerical simulations and experimental investigation of particle transport and turbulence in rotational flows: Applications to Eccentric and Conical Taylor-Couette Configurations. Principal Investigator: **Prof Uddipta Ghosh**, Mechanical Engineering
  - High entropy alloy nanoparticles CeO<sub>2</sub> catalyst for Dry reforming of CO<sub>2</sub>, (STARS) Principal Investigator: **Prof Sudhanshu Sharma**, Chemistry
  - Ground motion prediction for site specific hazard analysis : demonstrated case studies from Gujarat, Western India, (STARS) Principal Investigator: **Prof Sanjay Singh Bora**, Earth Sciences
  - Physics guided data science approach for predictive understanding of Hydrological Processes, (STARS) Principal Investigator: **Prof Udit Bhatia**, Civil Engineering
  - Understanding the critical orientation for seismic excitation and developing associated GMPEs for Indian Subcontinent, (STARS) Principal Investigator: **Prof Dhiman Basu**, Civil Engineering
  - Flood risk assessment in tropical rivers in the Anthropocene under climate change scenario using hydro geomorphic modeling, (STARS) Principal Investigator: **Prof Vikrant Jain**, Earth Sciences
  - Harnessing low cost, high efficiency stable photovoltaics based on layered hybrid perovskites, (STARS) Principal Investigator: **Prof Rupak Banerjee**, Physics
  - Electrochemical fabrication of sub-nm pores on mica and Si-nitride sheets for desalination applications, (STARS) Principal Investigator: **Prof Gopinadhan Kalon**, Physics
  - Antibacterial polymers to combat drug-resistant bacteria, (STARS) Principal Investigator: **Prof Abhijit Mishra**, Materials Science & Engineering

## ONGOING SPONSORED PROJECTS

- Special manpower development project- chips to system design (SMDP-C2SD), Department of Electronics & Information Technology Central Electronics Engineering Research Institute (DEITY-CEERI). Principal Investigator: **Prof Nihar Ranjan Mohapatra**, Electrical Engineering
- Visvesvaraya PhD scheme for electronics and IT, Department of Electronics & Information Technology Principal Investigator: **Prof Uttama Lahiri**, Electrical Engineering
- Bidirectional interaction between perception and motor control, Wellcome Trust- Department of Biotechnology. Principal Investigator: **Dr Neeraj Kumar**, Cognitive Science
- Development of a robotic system for gait characterization and performance measurement, Department of Science & Technology (INSPIRE). Principal Investigator: **Prof Vineet Vashista**, Mechanical
- Biomimetic catalyst design for the cathodic oxygen reduction reaction (ORR) in fuel cell – (Ramanujan Fellowship) Science & Engineering Research Board. Principal Investigator: **Prof Arnab Dutta**, Chemistry
- Effective constraint handling for single and multi-objective optimization in Cuckoo Search

- Algorithm: Application to optimal control problems. Science & Engineering Research Board. Principal Investigator: **Prof Nitin Padhiyar**, Chemical Engineering
- DSIR - common research and technology development hub - chemical processes, Department of Scientific and Industrial Research. Principal Investigator: **Prof Chinmay Ghoroi**, Chemical Engineering
  - Development of high voltage (HV) devices for CCD (charge coupled device) clock drivers, Department of Space. Principal Investigator: **Prof Nihar Ranjan Mohapatra**, Electrical Engineering
  - Molecular mechanisms of kinesin-3 autoregulation and their biophysical measurements, Science & Engineering Research Board. Principal Investigator: **Prof Virupakshi Soppina**, Biological Engineering
  - Mechanism of kinesin-3 base cargo transport, regulation and their implication in neurodegenerative diseases, Department of Biotechnology. Principal Investigator: **Prof Virupakshi Soppina**, Biological Engineering
  - Smart integrated campus energy monitoring and management system, Science & Engineering Research Board. Principal Investigator: **Prof Naran Pindoriya**, Electrical Engineering
  - Reusable and field-deployable nanobiocatalysts for detection of pesticides and herbicides, IMPRINT project, Ministry of Human Resource Development. Principal Investigator: **Prof Bhaskar Datta**, Chemistry
  - Single crystal XRD instrument sanctioned under DST fund for the improvement of S&T infrastructure in Universities and Higher Educational Institutions (FIST) program – 2016. Principal Investigators: **Prof Sivapriya Kirubakaran**, Chemistry
  - Design and implementation of acoustic beamforming systems in digital hearing aids, Department of Science & Technology. Principal Investigator: **Prof Nithin V George**, Electrical Engineering
  - Tuning structure and rheology of aggregated suspensions: influence of particle surface, concentration and anisotropic suspending medium, Science & Engineering Research Board. Principal Investigator: **Prof Prachi Thareja**, Chemical Engineering
  - Data-driven intelligent energy management for environmentally sustainable energy access, Department of Science & Technology – UK-India Education and Research Initiative (UKIERI). Principal Investigator: **Prof Naran Pindoriya**, Electrical Engineering
  - Design & prototype demonstration of a CHCP system for scalable building energy use based on methanol powered fuel cell system, Department of Science & Technology. Principal Investigator: **Prof Atul Bhargav**, Mechanical Engineering
  - Tuning oscillatory chemical reactions using metal nanoparticle graphene composites, Science & Engineering Research Board. Principal Investigator: **Prof Pratyush Dayal**, Chemical Engineering
  - Scale-up of diesel autothermal reformer from 5 kWe to 30 kWe for naval applications, IMPRINT project, MHRD. Principal Investigator: **Prof Atul Bhargav**, Mechanical Engineering
  - Protein disaggregation mechanisms through surface patterning, Science & Engineering Research Board. Principal Investigator: **Prof Mithun Radhakrishna**, Chemical Engineering
  - Enhancing shelf life of liquid foods by ultrasound assisted high pressure carbon, Council of Scientific and Industrial Research. Principal Investigator: **Prof Sameer Dalvi**, Chemical Engineering
  - Nonlinear acoustics of one and two dimensional granular media, Department of Science & Technology. Principal Investigator: **Prof Jayaprakash K R**, Mechanical Engineering
  - Dynamic properties of confined masonry buildings through ambient and forced vibration

- testing, Council of Scientific & Industrial Research. Principal Investigator: **Prof Dhiman Basu**, Civil Engineering
- Detection of partial blockage in a pipe, Science & Engineering Research Board. Principal Investigator: **Prof Pranab Kumar Mohapatra**, Civil Engineering
  - River health analysis of Ramganga river basin – a geomorphologic approach, Centre for Ganga River Basin Management, IIT Kanpur. Principal Investigator: **Prof Pranab Kumar Mohapatra**, Civil Engineering
  - Regulation of inter-allelic epigenetic differences by CGBP1-CTCF axis, Department of Biotechnology. Principal Investigator: **Prof Umashankar Singh**, Biological Engineering
  - Effect of oxidation on the magnetic properties of SmCo based permanent magnets, Defence Research and Development Organisation (DRDO). Principal Investigator: **Prof Emila Panda**, Materials Science and Engineering
  - Fabrication and characterization of hybrid organic–inorganic nanocomposite thin films for photovoltaic application Resources, Science & Engineering Research Board. Principal Investigator: **Prof Rupak Banerjee**, Physics
  - Development of nanoporous geopolymeric catalysts for industrially relevant liquid-phase reactions, Science & Engineering Research Board. Principal Investigator: **Prof Sudhanshu Sharma**, Chemistry
  - Impacts of climate variability and climate change on water resources in the Sabarmati river basin, Ministry of Water Resources (MoWR). Principal Investigator: **Prof Vimal Mishra**, Civil Engineering
  - Development of indigenous technology for CZTS (Cu<sub>2</sub>ZnSnS<sub>4</sub>) absorber based solar cell using industry friendly magnetron sputtering and RTP (Rapid Thermal Processing) sulfurization process, Science & Engineering Research Board. Principal Investigator: **Prof Emila Panda**, Materials Science and Engineering
  - To strengthen the post-graduate teaching & research facilities in the department, Department of Science & Technology. Principal Investigator: **Prof Emila Panda**, Materials Science and Engineering
  - ECO-WET - efficient coupling of water and energy technologies for smart sustainable cities, Indo-German Science and Technology Centre. Principal Investigator: **Prof Naran Pindoriya**, Electrical Engineering
  - Tectonic and climatic control on variability of sediment routing in the NW Himalaya since late quaternary, Department of Science & Technology. Principal Investigator: **Prof Vikrant Jain (Saptrishi Dey)**, Earth Sciences
  - High yield exfoliation of layered metal diborides to synthesize boron analogs of graphene for developing a new class of energy storage nanocomposites, Science & Engineering Research Board. Principal Investigator: **Prof Kabeer Jasuja**, Chemical Engineering
  - Reactive transport in porous media (Ramanujan), Science & Engineering Research Board. Principal Investigator: **Prof Uddipta Ghosh**, Mechanical Engineering
  - Intelligent power management system for monitoring, diagnosis & prognostics of electric loads in armoured fighting vehicles, Defence Research & Development Organisation. Principal Investigator: **Prof Babji Srinivasan**, Chemical Engineering
  - Extremal partial VC-dimension and fine-grained fold-cut problems, Science & Engineering Research Board. Principal Investigator: **Prof Neeldhara Misra**, Computer Science and Engineering
  - Developing low-cost bipolar transistors for analog and RF applications in 0.18μm CMOS technology, Science & Engineering Research Board. Principal Investigator: **Prof Nihar Ranjan Mohapatra**, Electrical Engineering
  - Topology and evolution of black holes in higher

- curvature gravity, Department of Science & Technology. Principal Investigator: **Prof Sudipta Sarkar**, Physics
- Development of simulation tools and experimental validation for investigating the application of Al7xxx (7050 base alloy) in the aerospace and automotive sector, Science & Engineering Research Board. Principal Investigator: **Prof Manas Paliwal**, Materials Science and Engineering
  - Development of a prosumer driven integrated smart grid, Department of Science & Technology. Principal Investigator: **Prof Naran Pindoriya**, Electrical Engineering
  - Towards development of sustainable water cyber-physical systems: implementation in Gujarat Water Network Systems, WIN Foundation. Principal Investigator: Prof Pranab Mohapatra, Civil Engineering and **Prof Babji Srinivasan**, Chemical Engineering
  - Theoretical and experimental study of wave propagation in granular metamaterials, Science & Engineering Research Board. Principal Investigator: **Prof Jayaprakash K R**, Mechanical Engineering
  - Vulnerability assessment and sustainable solutions for water quality management in the urban environment, Department of Science & Technology. Principal Investigator: **Prof Manish Kumar**, Earth Sciences
  - Micro-components quantification of end uses of water consumption in low income settings, WIN Foundation. Principal Investigator: **Prof Manish Kumar**, Earth Sciences
  - Pilot scale in-situ application for arsenic and fluoride removal from the groundwater: a safe drinking water production perspective, WIN Foundation. Principal Investigator: **Prof Manish Kumar**, Earth Sciences
  - Development of a predictive geomorphic model as a tool for a sustainable river management, Ministry of Earth Sciences. Principle investigator: **Prof Vikrant Jain**, Earth Sciences
  - HDR-GIF and HDR Video generation for dynamic scenes, Science & Engineering Research Board. Principal Investigator: **Prof Shanmuganathan Raman**, Electrical Engineering
  - Geometrically frustrated layered structure: synthesis and properties, Department of Science & Technology. Principal Investigator: **Prof Sudhanshu Sharma** and **Sethulaxmi N**, Chemistry
  - Ultrasound-responsive multi-layered microbubbles using electrohydrodynamic focusing device for oral cancer drug delivery, UGC-UKIERI Joint Research Programme (UKIERI - III). Principal Investigator: **Prof Sameer Dalvi**, Chemical Engineering
  - VAJRA faculty scheme: collaborative research visit of Prof Dinesh Kant Kumar from RMIT University, Australia, Science & Engineering Research Board. Principal Investigator: **Prof Uttama Lahiri**, **Prof Dinesh Kant**, Electrical Engineering
  - Ramanujan fellowship - DNA nanodevices to program stem cells, Science & Engineering Research Board. Principal Investigator: **Prof Dhiraj Bhatia**, Biological Engineering
  - Investigating the mechanisms of neuronal transport system and their regulations, Department of Science & Technology. Principal Investigator: **Prof Sivapriya Kirubakaran**, Biological Engineering
  - Cultural Heritage Preservation and Restoration using Digital 3D Models, Science & Engineering Research Board. Principal Investigator: **Prof Shanmuganathan Raman**, Electrical Engineering
  - Smart walk: intelligent sensor-fitted shoes for gait monitoring and rehabilitation in neurological disorders, Biotechnology Industry Research Assistance Council. Principal Investigator: **Prof Uttama Lahiri**, Electrical Engineering
  - Unbiased pattern mining in NGS datasets: a novel computational biology approach, Department of Science & Technology. Principal Investigator: **Prof Umashankar Singh**, Biological Engineering
  - Computational modelling of energetic materials subjected to thermal and mechanical insults using the material point method, Defence R&D Organisation. Principal Investigator: **Prof Gaurav Srivastava**, Civil Engineering
  - INSPIRE Faculty Award, Department of Science & Technology. Principal Investigator: **Prof Akshaa Vatswani**, Mathematics
  - An experimental operational hydrologic modeling and forecasting system for river basin hydrology and extremes for India, Indian Institute of Tropical Meteorology. Principal Investigator: **Prof Vimal Mishra**, Civil Engineering
  - Targeting mitochondrial central dogma by chimeric nanoparticle in cancer, Department of Science & Technology. Principal Investigator: **Prof Sudipta Basu**, Chemistry
  - Technology-assisted pelvic motion characterization and gait rehabilitation for the elderly, Department of Science & Technology. Principal Investigator: **Prof Uttama Lahiri**, Electrical Engineering
  - A device for bed load measurement, Science & Engineering Research Board (IMPRINT). Principal Investigator: **Prof Pranab Mohapatra**, Civil Engineering
  - Enzyme dynamics in cytosolic milieu: a new perspective on intracellular mechanics and transport, Science & Engineering Research Board. Principal Investigator: **Prof Krishna Kanti Dey**, Physics
  - A photo-switchable plasmonic system to reconfigure hot-spots between nanogaps in gold nanorod dimers – NPDF, Science & Engineering Research Board. Principal Investigator: **Prof Saumyakanti Khatua** (Gayatri Joshi), Chemistry
  - Scaling up a high-throughput gravitational-wave search pipeline using randomized numerical linear algebra, Department of Science & Technology. Principal Investigator: **Prof Anand Sengupta**, Physics
  - Ramanujan-type formulas for  $\zeta^2(2m+1)$  and a
  - Bessel series, Science & Engineering Research Board. Principal Investigator: **Prof Atul Abhay Dixit**, Mathematics
  - Parabolic sheaves and filtered Kronecker modules, Science & Engineering Research Board. Principal Investigator: **Prof Sanjaykumar Amrutiya**, Mathematics
  - Development of novel bicyclic secondary amine catalysts for the stereoselective vinylogous functionalization of unsaturated aldehydes, Science & Engineering Research Board. Principal Investigator: **Prof Chandrakumar Appayee**, Chemistry
  - Impact of ureido protein degenerative modifications on amyloidogenic peptide and protein aggregation: implications for neurodegenerative disorders, Science & Engineering Research Board. Principal Investigator: **Prof Sharad Gupta**, Biological Engineering
  - Heat transfer and material flow modeling of additive manufacturing of dissimilar materials, Science & Engineering Research Board. Principal Investigator: **Prof Amit Arora**, Materials Science and Engineering
  - Algebra structures on certain quadrics, Science & Engineering Research Board. Principal Investigator: **Prof Indranath Sengupta**, Mathematics
  - Scholarly information extraction from comparative charts and tables, Science & Engineering Research Board. Principal Investigator: **Prof Mayank Singh**, Computer Science and Engineering
  - Free boundary value problems and singular parabolic partial differential equations, Science & Engineering Research Board. Principal Investigator: **Prof Jagmohan Tyagi**, Mathematics
  - Design of hearables with psychoacoustic integration, Science & Engineering Research Board. Principal Investigator: **Prof Nithin V George**, Electrical Engineering
  - Global stability analysis of flow between eccentric rotating cylinders, Science & Engineering Research Board. Principal Investigator: **Prof Vinod Narayanan**, Mechanical Engineering
  - Unravelling Submarine Groundwater Discharge (SGD) zones along the Indian subcontinent and its Islands (Mission-SGD) – pilot study, National Centre for Earth Science Studies (NCESS). Principal Investigator: **Prof Manish Kumar**, Earth Sciences
  - Development of environmentally and economically sustainable composite solution for municipal solid waste management, Gujarat State Biotechnology Mission. Principal Investigator: **Prof Manish Kumar**, Earth Sciences
  - Impact of sea level fluctuations, climate change or tectonic activity on the decline of the Harappan settlement of Dholavira, Kutch, India, Department of Science & Technology. Principal Investigator: **Prof Vikrant Jain**, Earth Sciences



# CONSULTANCY PROJECTS

## PROJECTS SANCTIONED DURING 2019-20

- Optical Metasurfaces for prescription eye-wear: A feasibility study, Principal Investigator: **Prof Ravi Hegde**, Electrical Engineering
- Proposal for testing of bonded panels, Principal Investigator: **Prof Pratyush Dayal**, Chemical Engineering
- Fluvial Geomorphology study in stretches of Kosi, Nihai, Suheli and Geruwa rivers and impact of changing river-dynamics induced by mining activities onto wildlife, Principal Investigator: **Prof Vikrant Jain**, Earth Sciences
- Lecture on "Construction: Safety and Sustainability", Principal Investigator: **Prof Manish Kumar**, Earth Sciences
- Conducting an elimination test for the candidates for the post of Scientific Officers in GUJCOST, Principal Investigator: **Prof Surya Pratap Mehrotra**, Material Science & Engineering
- Preliminary screening for the post of Scientist B/Manager and Tech Asst./ Dy. Manager, Principal Investigator: **Prof Surya Pratap Mehrotra**, Material Science & Engineering
- Structural and functional characterization of Proprotein convertasesubtilisin/kexin type 9, Principal Investigator: **Prof Vijay Thiruvengatam**, Biological Engineering
- Testing of the two samples of soil for their characteristics, Principal Investigator: **Prof Amit Prashant**, Civil Engineering
- Catalysing the National Nutrition Mission through innovative young minds: A formative study to capture key learnings, Principal Investigator: **Prof Malavika Subramanyam**, Humanities and Social Sciences
- Workshop for Whistling Woods International, Principal Investigator: **Prof**

**Jaision Manjaly**, Humanities and Social Sciences

- Assessment of perimeter fire and smoke barriers through full-scale fire experiment, Principal Investigator: **Prof Gaurav Srivastava**, Civil Engineering
- Remedial measures for damaged road between Bharuch and Dahej, Principal Investigator: **Prof Amit Prashant**, Civil Engineering
- Review of stability of buildings in the tunnel drive from Gheekanta to Shahpur at Ahmedabad, Principal Investigator: **Prof Amit Prashant**, Civil Engineering
- Fires in Hospitals: An assessment of 'where are we today and 'what needs to be done', Principal Investigator: **Prof Gaurav Srivastava**, Civil Engineering
- Soil treatment for filling at Dholera International Airport site, Principal Investigator: **Prof Amit Prashant**, Civil Engineering
- Foundation consultancy for development of proposed 10 GW RE (wind and/or solar) projects in Great Rann of Kutch, Gujarat. Principal Investigator: **Prof Amit Prashant**, Civil Engineering
- Data augmentation techniques for person detection, Principal Investigator: **Prof Shanmuganathan Raman**, Electrical Engineering
- Structure stability & retrofitting scheme for existing single storey buildings at Sabarmati, Ahmedabad, Gujarat, Principal Investigator: **Prof Dhiman Basu**, Civil Engineering
- Optimization, purification & extraction of gums & fiber from natural raw material, Principal Investigator: **Prof Sivapriya Kirubakaran**, Chemistry
- Remedial measures of slope failures at 5 MW solar power plant of GIPCL, Principal Investigator: **Prof Amit Prashant**, Civil Engineering
- Noise minimization in tires, Principal Investigator: **Prof Ravi Sastri Ayyagari**, Mechanical Engineering
- Design consultancy on Methanol and Natural Gas Powered Fuel Cell Systems. Principal Investigator: **Prof Atul Bhargav**, Mechanical Engineering
- Synthesis of industrially relevant organic molecules, Principal Investigator: **Prof Sriram Kanvah Gundimeda**, Chemistry
- Developing techniques for scalable energy disaggregation, Principal Investigator: **Prof Nipun Batra**, Computer Science & Engineering
- Implications of COVID-19 on Gujarat state from climate change perspective, Principal Investigator: **Prof Vimal Mishra**, Civil Engineering

रंगमंच  
RANG MANCH









# PUBLICATIONS

Document Type	No of Publications
Book Chapter	40
Books	3
Books Edited	5
E-Print Archives	92
Journal Articles	483
Magazine/Newspaper Articles/Short Story	26
Others	1
Papers Presented at Conference	221
Posters Presented	76
Report	2
Reviews	5
Working Paper	1
<b>Total</b>	<b>955</b>

## ARCHAEOLOGICAL SCIENCES

### JOURNAL PAPERS

**Banerjee, Ruman\***; Chakraverty, Somnath and Robinson, David W, "Women of central Indian rock art: discovery, documentation and interpretation", Expression, Dec 2019

**Kanungo, Alok Kumar** and Trivedi, Mudit, "Ancient Indian glass", Current Science, vol 117, no 3, pp 355-358, Aug 2019

**Kanungo, Alok Kumar** and Trivedi, Mudit, "Conference cum workshop on history, science, and technology of ancient Indian glass, IIT Gandhinagar", The Bead Forum: Newsletter of the Society of Bead Researchers, no 74, pp 4-5, July 2019

**Kanungo, Alok Kumar** and Trivedi, Mudit, "History, science and technology of ancient Indian glass", Heritage: journal of multidisciplinary studies in archaeology, no 7, pp 1031-1050, 2019

**Kanungo, Alok Kumar** and Trivedi, Mudit, "Report on conference cum workshop on history, science and technology of ancient Indian glass, held at IIT Gandhinagar", Journal of the Geological Society of India, DOI: 10.1007/s12594-019-1274-x, vol 94, no 1, pp 105-107, July 2019

**Kanungo, Alok Kumar**, "Chevron and millefiorie in India", Journal of the Borneo International Beads Conference 2019, pp 69-88, Oct 2019

**Roy, Oishi#**, "A study on the iron artefacts from the megalithic sites of Dhamna Linga and Dhaulameti of Vidarbha", Heritage: Journal of Multidisciplinary Studies in Archaeology, vol 7, pp 642-660, 2019

**Roy, Oishi#**, "Evidence of steel making at Naikund and its relationship with Mahurjhari' Borgaon and Khairwada, Maharashtra", Man and Environment, vol 44, no 1, pp 12-20, June 2019

### PAPERS PRESENTED AT CONFERENCES

**Kanungo, Alok Kumar**, "Chevron and millefiorie in India", in the Fifth Borneo International Beads Conference (BIBCo), CraftHub Sdn. Bhd., Kuching, MY, Oct 04-06, 2019

**Kanungo, Alok Kumar**, "Mapping kapadanj glass: holding mirror to the last surviving traditional tank furnace in India", in the International Congress on Glass (ICG 2019), Boston, US, Jun 9-14, 2019

## BIOLOGICAL ENGINEERING

### BOOK CHAPTERS

Choudhary, Sandeep; Pandey, Gaurav; **Mukherjee, Rupsha\*** and Joshi, Abhijeet, "Biomedical Instrumentation: focus toward point-of-care devices", in Biomedical engineering and its applications in healthcare, DOI: 10.1007/978-981-13-3705-5\_13, Springer Nature, pp 297-326, 2019, ISBN: 9789811337048

**Singhal, Aditi\***; **Kapil, Kriti\***; **Dodla, Ankit\***; **Kumar, Sanjay\*** and **Datta, Bhaskar**, "Nucleic acid based nanoconstructs for environmental analysis in atypical contexts", in Nanotechnology for Energy and Environmental Engineering, DOI: 10.1007/978-3-030-33774-2\_25, Switzerland: Springer Nature, pp 577-596, 2020, ISBN: 9783030337735

### E-PRINT ARCHIVES

Gour, Nidhi; Kshtriya, Vivek Shinh; Singh, Dheeraj K; Kanth P., Chandra and **Bhatia, Dhiraj**, "A new disaggregation induced emission enhancement (DIEE) based probe for cellular detection of copper and lactate", ChemRxiv.org, DOI: 10.26434/chemrxiv.8003507.v2, June 2019

**Patel, Manthan\***; **Patel, Divyesh\***; **Datta, Subhamoy\*** and **Singh, Umashankar**, "HDAC inhibitor Givinostat targets DNA-binding of human CGGBP1", bioRxiv, Cold Spring Harbor Laboratory, DOI: 10.1101/202001.08.898494, Jan 2020

**Thiruvengadam, Vijay et al.**, "Complex macroscale structures formed by the shock processing of amino acids and nucleobases -- implications to the origins of life", arXiv, Cornell University Library, DOI: arXiv:1906.05958, June 2019

### JOURNAL ARTICLES

**Angira, Deekshi\***; Chikhale, Rupesh; **Mehta, Kapil Kumar\***; Bryce, Richard A. and **Thiruvengadam, Vijay**, "Tracing the GSAP-APP C-99 interaction site in the  $\beta$ -amyloid pathway leading to Alzheimer's disease", ACS Chemical Neuroscience, DOI: 10.1021/acscchemneuro.9b00332, July 2019

**Angira, Deekshi\***; **Shaik, Althaf\*** and **Thiruvengadam, Vijay**, "Structural and strategic landscape of PIKK protein family and their inhibitors: an overview", Frontiers in Bioscience, Landmark Edition, DOI: 10.2741/4867, vol 25, no 8, pp 1538-1567, Mar 2020

**Bhattacharjee, Archita#**; **Morya, Vinod\*** and **Ghoroi, Chinmay**, "Enzyme-mimetic activity of sugar cane juice stabilized CuO nanospheres and CuO/GO nanocomposite: Green synthesis and applications", Colloid and Interface Science Communications, DOI: 10.1016/j.colcom.2020100239, vol 35, Mar 2020

**Chakraborty, Swaroop\*** and **Misra, Superb K.**, "A comparative analysis of dialysis based separation methods for assessing copper oxide nanoparticle solubility", Environmental Nanotechnology, Monitoring & Management, DOI: 10.1016/j.enmm.2019100258, vol 12, Dec 2019

**Datta, Subhamoy\***; **Patel, Manthan\***; **Patel, Divyesh\*** and **Singh, Umashankar**, "Distinct DNA sequence preference for histone occupancy in primary and transformed cells", Cancer Informatics, DOI: 10.1177/1176935119843835, vol 18, Apr 2019

**Dixit, Deepa\***; **Soppina, Virupakshi** and **Ghoroi, Chinmay**, "A non-electric and affordable surface engineered particle (SEP)-based point-of-use (POU) water disinfection system", Scientific Reports, DOI: 10.1038/s41598-019-54602-3, vol 9, no 1, Dec 2019

**Dolui, Dependu\***; **Khandelwal, Shikha\***; **Shaik, Althaf\***; Gaat, Deepika; **Thiruvengadam, Vijay** and **Dutta, Arnab**, "Enzyme inspired synthetic proton relays generate fast and acid-stable cobalt-based H<sub>2</sub> production electrocatalysts", ACS Catalysis,

DOI: 10.1021/acscatal.9b02953, vol 9, no 11, pp 10115-10125, Nov 2019

**Dolui, Dependu\***; **Khandelwal, Shikha\***; **Shaik, Althaf\***; Gaat, Deepika; **Thiruvengadam, Vijay** and **Dutta, Arnab**, "Enzyme inspired synthetic proton relays generate fast and acid-stable cobalt-based H<sub>2</sub> production electrocatalysts", ACS Catalysis, vol 9, no 11, Nov 2019 (Cover Page)

**Jana, Palash\***; **Mukherjee, Tarushyam\***; Khurana, Raman; Barooah, Nilotpal; **Soppina, Virupakshi**; Mohanty, Jyotirmayee and **Kanvah, Sriram**, "Fluorescence enhancement of Cationic Styrylcoumarin-Cucurbit [7] uril complexes: enhanced stability and cellular membrane localization", Journal of Photochemistry and Photobiology A: Chemistry, DOI: 10.1016/j.jphotochem.2019112062, Aug 2019

**Jana, Palash\***; **Mukherjee, Tarushyam\***; Khurana, Raman; Barooah, Nilotpal; **Soppina, Virupakshi**; Mohanty, Jyotirmayee and **Kanvah, Sriram**, "Fluorescence enhancement of cationic Styrylcoumarin-Cucurbit [7] uril complexes: enhanced stability and cellular membrane localization", Journal of Photochemistry and Photobiology A: Chemistry, DOI: 10.1016/j.jphotochem.2019112062, Aug 2019

**Jana, Palash\***; **Patel, Nishaben\***; **Mukherjee, Tarushyam\***; **Soppina, Virupakshi** and **Kanvah, Sriram**, "A 'Turn-On' Michler's ketone-benzimidazole fluorescent probe for selective detection of serum albumins", New Journal of Chemistry, DOI: 10.1039/C9NJ01972C, vol 43, no 27, pp 10859-10867, July 2019

**Katla, Jagadish\***; **Shaik, Althaf\***; **Dahiwadkar, Rahul\***; **Thiruvengadam, Vijay** and **Kanvah, Sriram**, "One and two component organogels with cyanostilbene without any auxiliary substituents", ChemPlusChem, DOI: 10.1002/cplu.201900564, vol 84, no 12, pp 1789-1795, Dec 2019

**Kumar, Sanjay\***; **Guru Krishnakumar, V.\***; **Morya, Vinod\***; **Gupta, Sharad** and **Datta, Bhaskar**, "Nanobiocatalyst facilitated aglycosidic quercetin as a potent inhibitor of tau protein aggregation", International Journal of Biological Macromolecules, DOI: 10.1016/j.ijbiomac.201907.081, vol 138, pp 168-180, Oct 2019

**Kumar, Sanjay\***; **Morya, Vinod\***; Gadhavi, Joshna; Vishnoi, Anjani; Singh, Jaskaran and **Datta, Bhaskar**, "Investigation of nanoparticle immobilized cellulase: nanoparticle identity, linker length and polyphenol hydrolysis", Heliyon, DOI: 10.1016/j.heliyon.2019e01702, vol 5, no 5, May 2019

**Mukherjee, Tarushyam\***; **Siva, Aravinta\***; **Bajaj, Komal\***; **Soppina, Virupakshi** and **Kanvah, Sriram**, "Imaging mitochondria and plasma membrane in live cells using solvatochromic styrylpyridines", Journal of Photochemistry and Photobiology B: Biology, DOI: 10.1016/j.jphotobiol.2019111732, vol 203, Dec 2019

**Pandey, Poonam\*** and **Mallajosyula, Sairam S.**, "Elucidating the role of key structural motifs in antifreeze glycoproteins", Physical Chemistry Chemical Physics, DOI: 10.1039/C8CP06743K, 2019

**Pandey, Poonam\***; Aytenfis, Asaminew H.; MacKerell, Alexander D. and **Mallajosyula, Sairam S.**, "Drude polarizable force field parametrization of carboxylate and N-acetyl amine carbohydrate derivatives", Journal of Chemical Theory and Computation, DOI: 10.1021/acs.jctc.9b00327, Aug 2019

**Patel, Divyesh\***; **Patel Manthan\***; **Datta, Subhamoy\*** and **Singh, Umashankar**, "CGGBP1 regulates CTCF occupancy at repeats", Epigenetics & Chromatin, DOI: 10.1186/s13072-019-0305-6, vol 12, no 1, Dec 2019

**Patel, Nishaben\***; Sharma, Purna; **Kumari, Ruchi#**; **Siva, Aravinta\***; Setty, Subba Rao and **Soppina, Virupakshi**, "Molecular mechanism of Rab22a mediated regulation of KIF13A motility and cargo recycling", Biophysical Journal, DOI: 10.1016/j.bpj.201911.2429, vol 118, no 3, Feb 2020

**Purushothaman, Gayathri\*** and **Thiruvengkatam, Vijay**, "High yield expression of recombinant CD151 in E.coli & a structural insight into cholesterol binding domain", Molecular Biotechnology, DOI: 10.1007/s12033-019-00212-3, vol 61, 12, pp 905-915, Sep 2019

**Purushothamana, Gayathri\***, Angirab, Deekshi and Thiruvengkatam, Vijay, "Investigation of nicotinamide and isonicotinamide derivatives: a quantitative and qualitative structural analysis", Journal of Molecular Structure, DOI: 10.1016/j.molstruc.201907.033, vol 1197, pp 34-44, Dec 2019

**Raval, Ishan# H. et al.**, "Characterization of VopJ by modelling, docking and molecular dynamics simulation with reference to its role in infection of enteropathogen *Vibrio parahaemolyticus*", Journal of Biomolecular Structure and Dynamics, DOI: 10.1080/07391102.20201734486, Mar 2020

**Saha, Sarmistha#**, Panieri, Emiliano; Suzen, Sibel; Saso, Luciano, "The interaction of flavonols with membrane components: potential effect on antioxidant activity", The Journal of Membrane Biology, DOI: 10.1007/s00232-019-00105-1, vol 253, no 1, pp 57–71, Feb 2020

**Sathisaran, Indumathi\*** and Dalvi, Sameer Vishvanath, "Cocrystallization of carbamazepine with amides: Cocrystal and eutectic phases with improved dissolution", Journal of Molecular Structure, DOI: 10.1016/j.molstruc.201905.054, vol 1193, pp 398-415, Oct 2019

Shah, Chetan P.; **Purushothaman, Gayathri\***; **Thiruvengkatam, Vijay**; **Kirubakaran, Sivapriya\***; **Juvala, Kapil#** and Kharkar, Prashant S., "Design, synthesis and biological evaluation of *Helicobacter pylori* inosine 5'-monophosphate dehydrogenase (HplMPDH) inhibitors. Further optimization of selectivity towards HplMPDH over human IMPDH2", Bioorganic Chemistry, DOI: 10.1016/j.bioorg.201904.001, vol 87, pp 753-764, June 2019

**Shaik, Althaf\***; **Angira, Deekshi\*** and **Thiruvengkatam, Vijay**, "Insights into supramolecular assembly formation of diethyl aryl amino methylene malonate (DAM) derivatives assisted via non-covalent interactions", Journal of Molecular Structure, DOI: 10.1016/j.molstruc.201904.114, May 2019

Sharma, Vasudha\* and **Majumdar, Sharmistha**, "Comparative analysis of ChIP-exo peak-callers: impact of data quality, read duplication and binding subtypes", BMC Bioinformatics, DOI: 10.1186/s12859-020-3403-3, vol 21, no 1, Feb 2020

**Singh, Neeru#**; **Bhakuni, Rashmi\***; **Chhabria, Dimple#** and **Kirubakaran, Sivapriya\***, "MDC1 depletion promotes cisplatin induced cell death in cervical cancer cells", BMC Research Notes, DOI: 10.1186/s13104-020-04996-5, vol 13, no 1, Mar 2020

## OTHERS

**Bhatia, Dhiraj**, "Open lab system: science in wonderland", in IndiaBioscience, Apr 26, 2019

## PAPERS PRESENTED AT CONFERENCES

**Majumdar, P.\***; **Shukla, C.\*** and **Datta, B.** The effects of small molecule-mediated G-quadruplex stabilization on induction of autophagy, International Conference in Biological Inorganic Chemistry (ICBIC-19), August 11-17, 2019, Interlaken, Switzerland

**Desai, N.\*** and **Datta, B.**, Investigating the role of G-quadruplexes in regulatory functions of lncRNA and their theranostic potential, EMBL Symposium, October 16-19, 2019, Heidelberg, Germany.

**Sathisaran, Indumathi\***; **Bhatia, Dhiraj** and **Dalvi, Sameer V.**, "Evaluation of anti-cancer and anti-invasion activity of curcumin multicomponent solids against 2D monolayer culture and 3D tumor model of a Triple Negative Breast Cancer (TNBC) cell line", in the 26th Indian Society for Chemists

and Biologists Conference (ISBCB)-Nirma Institute of Pharmacy International Conference (NIPICON) 2020, Nirma University, Ahmedabad, IN, Jan 22-24, 2020

**Solanki, Dhaval\***; **Kumar, Siddhant\*** and **Lahiri, Uttama**, "Body weight support assisted virtual reality based treadmill walk with gait characterization", in the 10th International Conference on Computing, Communication and Networking Technologies (ICCCNT 2019), IIT Kanpur, IN, July 6-8, 2019

**Solanki, Dhaval\***; **Kumar, Siddhant\*** and **Lahiri, Uttama**, "Computer-based treadmill-assisted gait rehabilitation platform augmented with body weight support and gait quantification", in the IEEE International Conference on Multimedia and Expo (ICME-2019), Shanghai, CN, July 8-12, 2019

**Solanki, Dhaval\***; **Kumar, Siddhant\***; **B., Shubha#** and **Lahiri, Uttama**, "Understanding implications of adaptive and progressive physiology-sensitive exercise on gait and physiological performance of patients with neurological disorder", in the International Conference on Neurological Disorders and Therapeutics (ICNDT 2019), National Institute of Pharmaceutical Education and Research (NIPER), Ahmedabad, IN, Oct 24-26, 2019

**Thiruvengkatam, Vijay**, "Fate of amino acids and nucleobases under impact induced shock – discovery of complex macroscale structures and implications to the origins of life", in the AGU Fall Meeting 2019, San Francisco, US, Dec 9-13, 2019

### Posters Presented

**Bhakuni, Rashmi\***; **Shaik, Althaf\***; **Priya, Bhanu\*** and **Kirubakaran, Sivapriya\***, "Characterization of SPK 98, an ATP-competitive inhibitor of ATR and mTOR", in Regional Young Investigator Meeting - India Bioscience, IIT Jodhpur, IN, Oct 31-Nov 2 2019

**Bhoir, Siddhant\***; Singh, Vibha; Chikhale, Rupesh; **Hussain, Javeena\***; Bryce, Richard; De Benedetti, Arrigo and **Kirubakaran, Sivapriya\***, "Targeting prostate cancer: the tousled way", in the 2020 Meeting of DNA Damage, Mutation and Cancer Gordon Research Conference, Ventura, US, Mar 1-6, 2020

**Chakraborty, Swaroop\***; **Mahadevan, Barath K.**; Shah, Juh; Balasubramanian, C.; Singh, Sanjay and **Misra, Superb K.**, "Development of stable isotope enriched 65-Cu doped ferrite nanoparticles for nanoparticles tracing", in the 6th Nano Today Conference organized by Elsevier, Lisbon, PT, June 16-20, 2019

**Dahiawadkar, Rahul\***; **Rajwar, Anjali\***; Kharbanda, Sumit\*; **Bhatia, Dhiraj** and **Kanvah, Sriram**, "Self-assembling, red-emitting pyridinium based cationic probes targeting nucleus and plasma membrane in mammalian cells", in the 5th DAE-BRNS Biennial Trombay Symposium on Radiation & Photochemistry (TSRP-2020), Bhabha Atomic Research Centre (BARC), Mumbai, IN, Jan 5-9, 2020

**Dahiawadkar, Rahul\***; **Rajwar, Anjali\***; Kharbanda, Sumit\*; **Bhatia, Dhiraj** and **Kanvah, Sriram**, "Styryl pyridinium fluorescence probes for staining nucleus", in the National Conference in Synthetic Biology, Indrashil University, Kadi, IN, Jan 24-25, 2020 (Best Poster Award)

Gadhavi, Joshna and **Gupta, Sharad**, "Amyloid like structures from self-assembly of peptide amphiphiles", in the International Conference on Smart Materials for Sustainable Technology (SMST-2020), Goa, IN, Feb 22-25, 2020

Gadhavi, Joshna and **Gupta, Sharad**, "Dichotomy of carbamylation: A comparison of aggregation propensity of carbamylated alpha-synuclein and fibril core peptides", in the Neuroscience 2019, Society for Neuroscience, Chicago, US, Oct 19-23, 2019

**Jana, Palash\***; **Patel, Nishaben\***; **Soppina, Virupakshi** and **Kanvah, Sriram**, "A turn-on Michler's ketone-benzimidazole fluorescent probe for selective detection of serum albumins", in International Symposium on Dyes & Pigments:

modern colorants; the synthesis and applications of  $\pi$ -systems, Seville, Spain, Sep 8-11, 2019

**Jana, Palash\***; **Patel, Nishaben\***; **Soppina, Virupakshi** and **Kanvah, Sriram**, "A turn-on Michler's ketone-benzimidazole fluorescent probe for selective detection of serum albumins", in Regional Young Investigator Meeting - India Bioscience, IIT Jodhpur, IN, Oct 31-Nov 2 2019

**Jana, Palash\***; **Patel, Nishaben\***; **Soppina, Virupakshi** and **Kanvah, Sriram**, "Cationic red emitting probes for the rapid and selective detection of SO<sub>2</sub> derivatives in aqueous and cellular environments", in 7th Asian network for natural and unnatural materials (Annum-VII), Ahmedabad, IN, Sep 27-29, 2019

**Mayya, Chaithra\***; Wunder, Christian; Johannes, Ludger; **Majumdar, Sharmistha** and **Bhatia, Dhiraj**, "Dynein motor protein in regulation of cellular endocytic pathways", in the 43rd All India Cell Biology Conference (AICBC-2019), IISER Mohali, Punjab, IN, Dec 19-21, 2019

**Mukherjee, Tarushyam\***; **Jana, Palash\***; Khurana, Raman; Barooah, Nilotpal; Mohanty, Jyotirmayee; **Soppina, Virupakshi** and **Kanvah, Sriram**, "Cationic coumarin-CB [7] complexes: enhanced stability in live cell imaging and cellular membrane localisation", in the 5th DAE-BRNS Biennial Trombay Symposium on Radiation & Photochemistry (TSRP-2020), Bhabha Atomic Research Centre (BARC), Mumbai, IN, Jan 5-9, 2020

**Mukherjee, Tarushyam\***; **Jana, Palash\***; Khurana, Raman; Barooah, Nilotpal; Mohanty, Jyotirmayee; **Soppina, Virupakshi** and **Kanvah, Sriram**, "Cationic coumarin-CB [7] complexes: enhanced stability in live cell imaging and cellular membrane localisation", in the 5th DAE-BRNS Biennial Trombay Symposium on Radiation & Photochemistry (TSRP-2020), Bhabha Atomic Research Centre (BARC), Mumbai, IN, Jan 5-9, 2020

**Ravi, Srimadhavi\***; **Barui, Sugata#** and **Kirubakaran, Sivapriya\***, "Targeting the Ataxia Telangiectasia Mutated (ATM) kinase for alleviating cancer", in the 68th Gordon Research Conference for Natural Products and Bioactive Compounds, Proctor Academy, Andover, NH, US, July 28- Aug 2, 2019

**Ravi, Srimadhavi\***; **Barui, Sugata#** and **Kirubakaran, Sivapriya\***, "Targeting the DDR pathway: the pathway to success against the 'Emperor of Maladies'", in the Gordon Research Seminar Series for Natural Products and Bioactive Compounds, Proctor Academy, Andover, NH, US, July 27-28, 2019

**Saha, Sarmistha#** and **Mishra Abhijit**, "Amphiphilic polymer coated nanoparticles: a promising platform to deliver drugs", in Symposium on Frontier Problems in Nanoscience and Nanotechnology (FPNN- 2020), IIT Gandhinagar, IN, Feb 14-15, 2020 (Best Poster Award)

**Saha, Sarmistha#** and **Mishra, Abhijit**, "Self-assembled polymer encapsulated drug nanostructures for fine-tuning the stability and controlled drug release", in the 16th Pacific Polymer Conference (PPC-2019), One Commonwealth, SG, Dec 8-12, 2019

**Sahrawat, Parul\***; **Hussain, Javeena\***; **C. Vaishali\*** and **Kirubakaran, Sivapriya\***, "Design, synthesis and biological studies of small molecule inhibitors targeting tousled-like kinase (TLK1/1B) as anti-cancer agent", in the 26th Indian Society for Chemists and Biologists Conference (ISBCB)-Nirma Institute of Pharmacy International Conference (NIPICON) 2020, Nirma University, Ahmedabad, IN, Jan 22-24, 2020

**Sai, Geetha M.\***; **Kumar, Siddhant\***; **Gupta, Sharad** and **Thareja, Prachi**, "Rheology of graphene oxide embedded and carbamoylated chitosan hydrogels", in The Society of Rheology 91st Annual Meeting, Raleigh, North Carolina, US, Oct 20-24, 2019

Saxena, Pragati\* and **Banerjee, Hoime\***,



"HpiMPDH- a potential target for gastric cancer", in the National Symposium on Basic and Translational Research in Cancer Biology, Institute of Advanced Research, Gandhinagar, IN, Sep 11-12, 2019

Sharma, Shubham\* and **Soppina, Virupakshi**, "Role of KIF16B in early endosome transport and molecular mechanism of its autoregulation", in the 20th International Symposium on Chromaffin Cell Biology (ISCCB-20), Indian Institute of Technology Madras, Chennai, IN, Jan 23-26, 2020

Sharma, Surabhi\*; **Patel, Nishaben\*** and **Soppina, Virupakshi**, "Understanding the role of kinesin-3 motors in endocytic pathway", in the 20th International Symposium on Chromaffin Cell Biology (ISCCB-20), Indian Institute of Technology Madras, Chennai, IN, Jan 23-26, 2020

**Shewale, Dipeshwari\*** and **Soppina, Virupakshi**, "Neurodegenerative disease mutations in KIF1A motor domain and their effect on motility properties", in the 20th International Symposium on Chromaffin Cell Biology (ISCCB-20), Indian Institute of Technology Madras, Chennai, IN, Jan 23-26, 2020

**Siva, Aravintha\*** and **Soppina, Virupakshi**, "KIF14: lazy or handicapped? understanding the motility properties of a mitotic motor", in the 20th International Symposium on Chromaffin Cell Biology (ISCCB-20), Indian Institute of Technology Madras, Chennai, IN, Jan 23-26, 2020

## CENTRAL LIBRARY

### PAPERS PRESENTED AT CONFERENCES

**Chaudhary, Panna#**; Gadhi, Geetaben and **Kumbar, T S**, "Trends in research support services in academic & research libraries: a bibliometric study", in the Management Libraries Network (MANLIBNET) 2019, Parul University, Vadodara, IN, Dec 19-21, 2019

## CHEMICAL ENGINEERING

### BOOKS

Rengaswamy, Raghunathan; **Srinivasan, Babji** and Bhatt, Nirav Pravinbhai, Process control fundamentals: analysis, design, assessment, and diagnosis, CRC Press, 2020, ISBN: 978036743342.

#### E-Print Archives

**Dayal, Pratyush** and **Misra, Neeldhara**, "Deleting to structured trees", arXiv, Cornell University Library, DOI: arXiv:1912.12765, Dec 2019

### JOURNAL ARTICLES

**Banerjee, Hritwick\***; Roy, Bihari; Chadhury, Kaustav; **Srinivasan, Babji**; Chakraborty, Suman and Ren, Hongliang, "Frequency-induced morphology alterations in micro confined biological cells", Medical & Biological Engineering & Computing, DOI: 10.1007/s11517-018-1908-y, vol 57, no 4, pp 819-835, Apr 2019

**Barik, Suvakanta# et al.**, "Bioinformatics: how it helps to boost modern biological research", Current Science, vol 118, no 5, pp 698-699, Mar 2020

**Barik, Suvakanta# et al.**, "Screening for endophytic fungi with antibacterial efficiency from Moringa oleifera and Withania somnifera", Journal of Scientific Research, DOI: 10.37398/JSR.2020640118, vol 64, no 1, pp 127-133, Jan 2020

**Bhattacharjee, Archita#**; **Morya, Vinod\*** and **Ghoroi, Chinmay**, "Enzyme-mimetic activity of sugar cane juice stabilized CuO nanospheres and CuO/GO nanocomposite: Green synthesis and applications", Colloid and Interface Science Communications, DOI: 10.1016/j.colcom.2020100239, vol 35, Mar 2020

**Das, Laya\***; **Garg, Dinesh** and **Srinivasan, Babji**, "Neuralcompression: a machine learning approach to compress high frequency measurements in smart grid", Applied Energy, DOI: 10.1016/j.apenergy.2019113966, vol 257, Jan 2020

**Das, Saroj Kumar\***; **Gawas, Ramchandra\***; **Chakrabarty, Satadru\***; **Harini, Gunda**; **Patidar, Rishabh\*** and **Jasuja, Kabeer**, "An unexpected transformation of organic solvents into 2D fluorescent quantum dots during ultrasonication assisted liquid phase exfoliation", The Journal of Physical Chemistry C, DOI: 10.1021/acs.jpcc.9b03975, Sep 2019

**Dawar, Rohit\***; **Samit Barai**; **Kumar, Pardeep\***; **Srinivasan, Babji** and **Mohapatra, Nihar**, "Random forest based robust classification for lithographic hotspot detection", Journal of Micro/Nanolithography, MEMS, and MOEMS, DOI: 10.1117/1.JMM.18.2.023501, vol 18, no 2, May 2019

**Dixit, Deepa\*** and **Ghoroi, Chinmay**, "Role of randomly distributed nanoscale roughness for designing highly hydrophobic particle surface without using low surface energy coating", Journal of Colloid and Interface Science, DOI: 10.1016/j.jcis.201912.041, vol 564, Dec 2019

**Dixit, Deepa\***; **Soppina, Virupakshi** and **Ghoroi, Chinmay**, "A non-electric and affordable Surface Engineered Particle (SEP) based Point-of-Use (POU) water disinfection system", Scientific Reports, DOI: 10.1038/s41598-019-54602-3, vol 9, no 1, Dec 2019

**Edirisinghe, Mohan** and **Dalvi, Sameer**, "Preface to the microbubbles: exploring gas-liquid interfaces for biomedical applications special issue", Langmuir, DOI: 10.1021/acs.langmuir.9b01807, vol 35, no 31, pp9995-9996, Aug 2019

**Iqbal, Mohd Umair\***; **Srinivasan, Babji** and **Srinivasan, Rajagopalan**, "Electroencephalogram based biomarkers for tracking the Cognitive workload of operators in process industries", Computer Aided Chemical Engineering, DOI: 10.1016/B978-0-12-818634-3.50233-2, vol 46, pp 1393-1398, Aug 2019

**Joshi, Amit\***; **Das, Laya\***; **Natarajan, Balasubramaniam** and **Srinivasan, Babji**, "Multi-class diagnosis of Neurodegenerative diseases: a Neuroimaging machine learning based approach", IEEE Transactions on Industrial Informatics, DOI: 10.1109/TII.2018.2866302, vol 15, no 4, pp 2233-2243, Apr 2019

**Khan, Aaqib H.\*** and **Dalvi, Sameer V.**, "Kinetics of albumin microbubble dissolution in aqueous media", Soft Matter, DOI: 10.1039/C9SM01516G, vol 16, no 8, pp 2149-2163, Jan 2020

**Kumar, Avishek\***; **Ghosh, Deepshikha\*** and **Radhakrishna, Mithun**, "Surface patterning for enhanced protein stability insights from molecular simulations", The Journal of Physical Chemistry B, DOI: 10.1021/acs.jpcc.9b05663, vol 123, no 40, pp 8363-8369, Sep 2019

**Kumar, D. Jaya Prasanna\***; **Verma, Sachin\***; **Jasuja, Kabeer** and **Dayal, Pratyush**, "Tuning the oscillatory dynamics of the Belousov-Zhabotinsky reaction using ruthenium nanoparticle decorated graphene", Physical Chemistry Chemical Physics, DOI: 10.1039/C8CP06766J, 2019

**Kumar, Saket\***; **Khatua, Saumyakanti** and **Thareja, Prachi**, "Fumed alumina-in-nematic liquid crystal suspensions under shear and electric field", Rheologica Acta, DOI: 10.1007/s00397-019-01132-4, vol 58, no 3-4, pp 203-216, Apr 2019

**Kumari, Beena\***; **Singh, Amit\***; **Jana, Palash\***; **Radhakrishna, Mithun** and **Kanvah, Sriram**, "White light emission in water through admixtures of donor- $\pi$ -acceptor siblings: experiment and simulation", New Journal of Chemistry, DOI: 10.1039/C9NJ02389E, July 2019

**Kumari, Rashmi#** and **Prasad, M. R. R.**, "NH<sub>4</sub>ClO<sub>4</sub> decomposition with nitrates of La, Ce, Nd, Sm, Eu", Journal of Applicable Chemistry, vol 9, no 3, pp 421-427, 2020

**Kumari, Rashmi#** and **Prasad, M. R. R.**, "Thermal decomposition of ammonium per chlorate: Part-I: effect of sample heating rate", Journal of Applicable Chemistry, vol 9, no 3, pp 441-446, 2020

**Mehta, Spand Bharat\***; **Kumar, Avishek\*** and **Radhakrishna, Mithun**, "Role of confinement, molecular connectivity, and flexibility on entropic driven surface segregation of polymer-colloid mixtures", Soft Matter, DOI: 10.1039/C9SM00883G, Aug 2019

**Mozhi Devan Padmanathan, Arul\***; **Sneha Ravi, Apoorva\***; **Choudhary, Hema\***; **Varanakkottu, Subramanyan Nambodiri** and **Dalvi, Sameer V.**, "Predictive framework for the spreading of liquid drops and the formation of liquid marbles on hydrophobic particle bed", Langmuir, DOI: 10.1021/acs.langmuir.9b00698, May 2019

**Ojha, Abhijeet\*** and **Thareja, Prachi**, "Graphene-based nanostructures for enhanced photocatalytic degradation of industrial dyes", Emergent Materials, DOI: 10.1007/s42247-020-00081-6, Mar 2020

**Pandey, Komal\*** U.; **Poornachary, Sendhil K.** and **Dalvi, Sameer V.**, "Insights to the action of additives for stabilization of ultrafine particles of fenofibrate in aqueous suspensions produced by sonoprecipitation", Powder Technology, DOI: 10.1016/j.powtec.201912.059, vol 363, pp 310-325, Jan 2020

**Patil, Sohan**; **Ghosh, Deepshikha\***; **Radhakrishna, Mithun** and **Basu, Sudipta**, "Mitochondrial impairment by cyanine-based small molecules induces apoptosis in cancer cells", ACS Medicinal Chemistry Letters, DOI: 10.1021/acsmchemlett.9b00304, vol 11, no 1, pp 23-28, Dec 2019

**Patil, Sohan**; **Pandey, Shalini**; **Singh, Amit\***; **Radhakrishna, Mithun** and **Basu, Sudipta**, "Hydrazide hydrazone small molecules as AIEgens: illuminating mitochondria in Cancer cells", Chemistry – A European Journal, DOI: 10.1002/chem.201901074, vol 25, no 35, pp 8229-8235, Apr 2019

**Prasad, Rupanjali\*** and **Dalvi, Sameer V.**, "Understanding morphological evolution of Griseofulvin particles into hierarchical microstructures during liquid antisolvent precipitation", Crystal Growth & Design, DOI: 10.1021/acs.cgd.9b00859, Sep 2019

**Prasad, Vignhesh\***; **Mehrotra, Surya Pratap** and **Thareja, Prachi**, "Influence of additives, particle size, and incorporation of coarse particles on the shear rheology of concentrated Indian coal ash slurries", Asia-Pacific Journal of Chemical Engineering, DOI: 10.1002/apj.2358, Aug 2019

**Prasad, Vignhesh\***; **Thareja, Prachi** and **Mehrotra, Surya Pratap**, "Role of rheology on the hydraulic transportation of lignite coal and coal ash slurries in the pipeline", International Journal of Coal Preparation and Utilization, DOI: 10.1080/19392699.20201721482, Jan 2020

**Roy, Anirban\***; **Chawhan, Rohan\*** Shuddhodhan; **Patel, Rutu\***; **Varadharajan, Surendar**; **Tiwari, Laxmi Mani**; **Chakraborty, Arup Lal**; **Ghoroi, Chinmay** and **Srivastava, Gaurav**, "Quantifying the CO and CO<sub>2</sub> mole fraction in the plume of an aerosol-based fire extinguishing agent using 4560 nm and 4320 nm QCLs", IEEE Sensors Journal, DOI: 10.1109/JSEN.20192927081, July 2019

**Sai, M.\***; **Upadhyay, Parth\*** and **Srinivasan, Babji**, "Fault detection and isolation in electrical machines using deep neural networks", Defense Science Journal, DOI: 10.14429/dsj.69.14413, vol 69, no 3, pp 249-253, 2019

**Sai, Munikoti**; **Das, Laya\***; **Natarajan, Balasubramaniam** and **Srinivasan, Babji**, "Data driven approaches for diagnosis of incipient faults in DC motors", IEEE transactions on Industrial Informatics, DOI: 10.1109/TII.20192895132, vol 15, no 9, pp 5299-5308, Sep 2019

**Saraswat, Rohit\***; **James, Asha Liza\*** and **Jasuja, Kabeer**, "High yield synthesis of boron-based

nanosheets", *Advances in Applied Ceramics*, DOI: 10.1080/17436753.20191584481, vol 118, no 4, pp 209-216, May 2019

**Sathisaran, Indumathi\*** and Dalvi, Sameer Vishvanath, "Cocrystallization of carbamazepine with amides: Cocrystal and eutectic phases with improved dissolution", *Journal of Molecular Structure*, DOI: 10.1016/j.molstruc.201905.054, vol 1193, pp 398-415, Oct 2019

**Saxena, Utkarsh\***; Chouksey, Shubham and **Rane, Kaustubh**, "Spontaneous translation of nanodroplet over a heterogeneous surface due to thermal cycles: role of solid-liquid interfacial fluctuations", *Molecular Physics*, DOI: 10.1080/00268976.20191657191, Aug 2019

**Shirude, Sandesh\*** and **Padhiyar, Nitin**, "Optimal grade transition of a non-isothermal continuous reactor with multi-objective dynamic optimization approach", *Chemical Engineering Research and Design*, DOI: 10.1016/j.cherd.201904.040, vol 147, pp 63-72, July 2019

**Sompura, Jay\***; **Joshi, Amit\***; **Srinivasan, Babji** and Srinivasan, Rajagopalan, "A practical approach to improve alarm system performance: application to power plant", *Chinese Journal of Chemical Engineering*, DOI: 10.1016/j.cjche.2018.09.020, vol 27, no 5, pp 1094-1102, May 2019

Srinivasan, Rajagopalan; **Srinivasan, Babji**; Iqbal, M. Umair; Nemet, Andreja and Kravanja, Zdravko, "Recent developments towards enhancing process safety: inherent safety and cognitive engineering", *Computers & Chemical Engineering*, DOI: 10.1016/j.compchemeng.201905.034, vol 128, pp 364-383, Sep 2019

**Srivastava, Gaurav**; **Nakrani, Dharmit\*** and **Ghoroi, Chinmay**, "Performance of combustible facade systems with glass, ACP and firestops in full-scale, real fire experiments", *Fire Technology*, DOI: 10.1007/s10694-019-00943-4, vol 56, no 4, pp 1575-1598, Jan 2020

Ullah, Mohd Faheem; **Das, Laya\***; **Parmar, Sweta\***; Rengaswamy, Raghunathan and **Srinivasan, Babji**, "On developing a framework for detection of oscillations in data", *ISA Transactions*, DOI: 10.1016/j.isatra.2018.12.026, vol 89, pp 96-112, June 2019

#### Magazine/Newspaper Articles/Short Story

**Pallath, Akash\***; **Joshi, Ansh** and **Dhariwal, Deepak**, "Without fundamental reforms to the education system, Indians will not innovate", *Fair Observer*, June 3, 2019

## PAPERS PRESENTED AT

### CONFERENCE

**Agarwal, Deepesh\***; Kumari, M.; Chinnaswamy, J.; R., Prabhavathy and **Srinivasan, Babji**, "Fault diagnosis and degradation analysis of PMDC motors using FEA based models", in the IEEE International conference on "Power Electronics, Smart Grid and Renewable Energy (PESGRE 2020)", Kochi, IN, Jan 02-04, 2020

**Agarwal, Deepesh\***; **Ramu, Sangeetha#**; Nagarajan, Murali; Rajappan, Prabhavathy; Chinnachamy, Jaishankar and **Srinivasan, Babji**, "IPMS for load sharing, monitoring and diagnosis of electrical loads in AFVs", in the IEEE 7th International Conference on Signal Processing & Integrated Networks (SPIN 2020), Amity University, Delhi, IN, Feb 27-28, 2020

Anilkumar, Markana; **Padhiyar, Nitin** and Moudgalya, Kannan, "Prioritized control of multivariate process using lexicographic ordering approach: a simulation study", in 6th International Conference on Control, Decision and Information Technologies (CoDIT 2019), Paris, FR, Apr 23-26, 2019

**Dixit, Deepa\*** and **Ghoroi, Chinmay**, "Novel surface engineered particles for point-of-use water disinfection", in the 3rd International Conference on Applied Surface Science, Pisa, IT, June 17-20, 2019

**Gunda, Harini\***; **Ghoroi, Chinmay** and **Jasuja,**

**Kabeer**, "Boron-based analogs of graphene exfoliated from layered metal diborides as catalytic additives to improve the performance of energetic materials", in the AIChE Annual Meeting - Energetic Materials: Engineered Particles and Interfaces session, Orlando, US, Nov 10-15, 2019

**Gunda, Harini\***; **Ghoroi, Chinmay** and **Jasuja, Kabeer**, "Improving the performance of energetic materials using boron based analogs of graphene derived from layered metal diborides as catalytic additives", in the 2nd Space Travel: Adaptive Research and Technologies from Biological and Chemical Engineering (STAR Tech), Boston, US, Nov 18-20, 2019

**Khewle, Surbhi\***; and **Dayal, Pratyush**, "Role of miscibility in the shape memory properties of polymer blends", in the APS March Meeting 2020, Denver, US, Mar 2-6, 2020

**Kumar, D. Jaya Prasanna\***; **Jasuja, Kabeer**; and **Dayal, Pratyush**, "Spontaneous locomotion of nano-catalysed BZ droplets", in the APS March Meeting 2020, Denver, US, Mar 2-6, 2020

**Madbhavi, Rahul\***; Karimi, Hazrah Sufi; Natarajan, Balasubramaniam and **Srinivasan, Babji**, "Tensor completion based state estimation in distribution systems", in the Eleventh Conference on Innovative Smart Grid Technologies (ISGT 2020), IEEE Power & Energy Society (PES), Washington DC, USA, Feb 17-20, 2020

**Ojha, Abhijeet\*** and **Thareja, Prachi**, "Rheological modulation and microstructural transformation of aqueous dispersions of graphene oxide: effect of ultra-sonication time", in the Applied Nanotechnology and Nanoscience International Conference 2019, Paris, FR, Nov 18-20, 2019

**Ojha, Abhijeet\*** and **Thareja, Prachi**, "Rheologically tunable graphene oxide suspensions: influence of electrolytes and ultra-sonication time", in the Society of Rheology 91st Annual Meeting, Raleigh, North Carolina, US, Oct 20-24, 2019

**Pamnani, Arik\***; **Goel, Rajat\***; **Choudhari, Jayesh\*** and **Singh, Mayank**, "IIT Gandhinagar at SemEval-2019 Task 3: contextual emotion detection using deep learning", in the 13th International Workshop on Semantic Evaluation (SemEval-2019), Minneapolis, US, June 6-7, 2019

**Prasad, Vignesh\***; **Mehrotra, Surya Pratap** and **Thareja, Prachi**, "Shear yield stress measurement of coal ash pastes from modified slump tests", in the 3rd International Conference on Powder, Granule and Bulk Solids: Innovations and Applications (PGBSIA 2020), Thapar University, Patiala, IN, Feb 26-29, 2020

Ratrey, Poonam; **Datta, Bhaskar**; **Dalvi, Sameer V.** and **Mishra, Abhijit**, "Octarginine-drug complexes for drug delivery to microbes and enhanced potency", in the 56th Japanese Symposium (JPS) 2019, Tokyo, Japan, Oct 23-25, 2019

**Sathisaran, Indumathi\***; **Bhatia, Dhara** and **Dalvi, Sameer V.**, "Evaluation of anti-cancer and anti-invasion activity of curcumin multicomponent solids against 2D monolayer culture and 3D tumor model of a Triple Negative Breast Cancer (TNBC) cell line", in the 26th Indian Society for Chemists and Biologists Conference (ISCBC)-Nirma Institute of Pharmacy International Conference (NIPICON) 2020, Nirma University, Ahmedabad, IN, Jan 22-24, 2020

**Zope, Rajat\***; and **Dayal, Pratyush**, "Lattice Boltzmann method for designing cellular solids for effective acoustic noise cancellation", in the APS March Meeting 2020, Denver, US, Mar 2-6, 2020

## POSTERS PRESENTED

**Dixit, Deepa\*** and **Ghoroi, Chinmay**, "Droplet wetting behavior and bacterial adhesion mechanism on the surface designed via photolithography", in the 3rd International Conference on Applied Surface Science, Pisa, IT, June 17-20, 2019

**Gunda, Harini\***, "Tuning the performance of

energetic materials using boron analogs of graphene as catalytic additives", in the Defense Techconnect Innovation Summit & Expo, National Harbor MD, US, Oct 8-10, 2019

**Gunda, Harini\***; **Das, Saroj Kumar\*** and **Jasuja, Kabeer**, "High-yield production of boron-based nanosheets from magnesium diboride by dissolution and recrystallization", in the AIChE Annual Meeting - Materials Engineering & Sciences (08D - Inorganic Materials) division, Orlando, US, Nov 10-15, 2019

**Sai, Geetha M.\***; **Kumar, Siddhant\***; **Gupta, Sharad** and **Thareja, Prachi**, "Rheology of graphene oxide embedded and carbamoylated chitosan hydrogels", in The Society of Rheology 91st Annual Meeting, Raleigh, North Carolina, US, Oct 20-24, 2019

**Sharma, Kanchan\*** and **Ghoroi, Chinmay**, "Carbon dioxide capturing using amine-modified aerogel", in the 1st Conference on Aerogel inspired materials, Newcastle, UK, Sep 18-20, 2019

## REPORT

Shende, Ameya and **Thareja, Prachi**, "Slurry flow through pipeline using computational method", Summer Research Fellowship Programme of India's Science Academies, Indian Academy of Sciences, Bengaluru, IN, 2019

## CHEMISTRY

### BOOK CHAPTER

**Ali, Afsar\***; **Prakash, Divyansh\*** and **Dutta, Arnab**, "Current status on the development of homogenous molecular electrocatalysts for oxygen reduction reaction (ORR) relevant for proton exchange membrane fuel cell applications", in *Advances in Spectroscopy: Molecules to Materials*, DOI: 10.1007/978-981-15-0202-6\_26, Singapore: Springer Nature, pp 337-349, 2019, ISBN: 9789811502019

Majhi, Sasmita; **Tyagi, Anju\*** and **Mishra, Abhijit**, "Bio-polymeric packaging material for packaging of raw food", in *Reference Module in Materials Science and Materials Engineering*, DOI: 10.1016/B978-0-12-803581-8.10841-0, Elsevier, 2019, ISBN: 9780128035818.

**Singhal, Aditi\***; **Kapil, Kriti\***; **Dodla, Ankit\***; **Kumar, Sanjay\*** and **Datta, Bhaskar**, "Nucleic acid based nanoconstructs for environmental analysis in atypical contexts", in *Nanotechnology for energy and environmental engineering*, DOI: 10.1007/978-3-030-33774-2\_25, Switzerland: Springer Nature, pp 577-596, 2020, ISBN: 9783030337735.

## E-PRINT ARCHIVES

Kumar, Nirmal; Nellaiappan, Subramanian; Kumar, Ritesh; Malviya, Kirtiman Deo; Pradeep, K. G.; Singh, Abhishek K.; **Sharma, Sudhanshu**; Tiwary, Chandra Sekhar and Biswas, Krishanu, "Instant and persistent hydrogen production using nano high entropy catalyst", *ChemRxiv.org*, DOI: 10.26434/chemrxiv.9777257.v1, Sep 2019

Nellaiappan, Subramanian; Kumar, Nirmal; Kumar, Ritesh; Parui, Arko; Malviya, Kirtiman Deo; Pradeep, K. G.; Singh, Abhishek K.; **Sharma, Sudhanshu**; Tiwary, Chandra Sekhar and **Sharma, Sudhanshu**, "Nobel metal based high entropy alloy for conversion of carbon dioxide (CO<sub>2</sub>) to hydrocarbon", *ChemRxiv.org*, DOI: 10.26434/chemrxiv.9777218.v1, Sep 2019

Nellaiappan, Subramanian; Kumar, Ritesh; Shivakumara, C.; Irusta, Silvia; Hachtel, Jordan A.; Idrobo, Juan-Carlos; Singh, Abhishek Kumar; Tiwary, Chandra Sekhar and **Sharma, Sudhanshu**, "Electroreduction of carbon dioxide into selective hydrocarbon using isomorphic atomic substitution in stable copper oxide", *ChemRxiv.org*, DOI: 10.26434/chemrxiv.9790760.v1, Sep 2019



## JOURNAL ARTICLES

**Angira, Deekshi\***; Chikhale, Rupesh; **Mehta, Kapilkumar\***; Bryce, Richard A. and **Thiruvengkatam, Vijay**, "Tracing the GSAP-APP C-99 interaction site in the  $\beta$ -amyloid pathway leading to Alzheimer's disease", *ACS Chemical Neuroscience*, DOI: 10.1021/acscchemneuro.9b00332, July 2019

**Angira, Deekshi\***; **Shaik, Althaf\*** and **Thiruvengkatam, Vijay**, "Structural and strategic landscape of PIKK protein family and their inhibitors: an overview", *Frontiers in Bioscience, Landmark Edition*, DOI: 10.2741/4867, vol 25, no 8, pp 1538-1567, Mar 2020

Baidya, Tinku; Murayama, Toru; Nellaiappan, Subramanian; Katiyar, Nirmal Kumar; Bera, Parthasarathi; Safonova, Olga; Lin, Mingyue; Priolkar, Kaustubh R.; Kundu, Samapti; Rao, Bolla Srinivasa; Steiger, Patrick; **Sharma, Sudhanshu**; Biswas, Krishanu; Pradhan, Swapan Kumar; Nakka, Lingaiah; Malviya, Kirtiman Deo and Masatake Haruta, "Ultra-Low temperature CO oxidation activity of octahedral site cobalt Species in Co3O4 based catalysts: unravelling the origin of unique catalytic property", *The Journal of Physical Chemistry C*, DOI: 10.1021/acs.jpcc.9b04136, July 2019

**Das, Sudipta\*** and **Gupta, Iti**, "Synthetic aspects of carbazole containing porphyrins and porphyrinoids", *Journal of Porphyrins and Phthalocyanines*, DOI: 10.1142/S1088424619300052, vol 23, no 04n05, pp 367-409, Apr 2019

**Dolui, Dependu\***; **Das, Sreewashi\***; **Bharti, Jaya\***; **Kumar, Shivam\***; **Kumar, Pankaj\*** and **Dutta, Arnab**, "Bio-inspired cobalt catalyst enables natural-sunlight-driven hydrogen production from aerobic neutral aqueous solution", *Cell Reports Physical Science*, DOI: 10.1016/j.xcrp.2019100007, Jan 2020

**Dolui, Dependu\***; **Khandelwal, Shikha\***; **Shaik, Althaf\***; Gaat, Deepika; **Thiruvengkatam, Vijay** and **Dutta, Arnab**, "Enzyme inspired synthetic proton relays generate fast and acid-stable cobalt-based H<sub>2</sub> production electrocatalysts", *ACS Catalysis*, DOI: 10.1021/acscatal.9b02953, vol 9, no 11, pp 10115-10125, Nov 2019

**Dolui, Dependu\***; **Khandelwal, Shikha\***; **Shaik, Althaf\***; Gaat, Deepika; **Thiruvengkatam, Vijay** and **Dutta, Arnab**, "Enzyme inspired synthetic proton relays generate fast and acid-stable cobalt-based H<sub>2</sub> production electrocatalysts", *ACS Catalysis*, vol 9, no 11, Nov 2019 (Cover Page)

**Dutta, Arnab et al.**, "A nanotube-supported dicopper complex enhances Pt-free molecular H<sub>2</sub>/Air fuel cells", *Joule*, DOI: 10.1016/j.joule.201907.001, vol 3, no 8, pp 2020-2029, Aug 2019

**Gangwar, Bhanu P.\***; Irusta, Silvia and **Sharma, Sudhanshu**, "Physicochemical and optical properties of one-pot combustion synthesized Pr doped La<sub>2</sub>O<sub>3</sub>/La(OH)<sub>3</sub>", *Journal of Luminescence*, DOI: 10.1016/j.jlumin.2019116893, vol 219, Nov 2019

**Gangwar, Bhanu P.\***; Pentyala, Phanikumar; Tiwari, Khushubo; Biswas, Krishanu; **Sharma, Sudhanshu** and Deshpande, Parag A., "Dry reforming activity due to ionic Ru in La<sub>1.99</sub>Ru<sub>0.01</sub>O<sub>3</sub>: the role of specific carbonates", *Physical Chemistry Chemical Physics*, DOI: 10.1039/C9CP02337B, July 2019

Ghosh, Arijit; Bhattacharjee, Sangheeta; Chowdhuri, Srijita Paul; Mallick, Abhik; Rehman, Ishita; **Basu, Sudipta** and Das, Benu Brata, "SCAN1-TDPI trapping on mitochondrial DNA promotes mitochondrial dysfunction and mitophagy", *Science Advances*, DOI: 10.1126/sciadv.aax9778, vol 5, no 11, Nov 2019

Ghosh, Chandramouli; Nandi, Aditi and **Basu, Sudipta**, "Lipid nanoparticle-mediated induction of endoplasmic reticulum stress in cancer cells", *ACS Applied Bio Materials*, DOI: 10.1021/acsbam.9b00532, Aug 2019

**Ghosh, Piue\***; **Kar, Ashish\***; **Khandelwal, Shikha\***; **Vyas, Divya\***; **Mir, Ab Qayoom\***; **Chakraborty, Arup Lal**; **Hegde, Ravi S.**; **Sharma, Sudhanshu**; **Dutta, Arnab** and **Khatua, Saumyakanti**, "Plasmonic CoO-

Decorated Au Nanorods for Photoelectrocatalytic Water Oxidation", *ACS Applied Nano Materials*, DOI: 10.1021/acsnm.9b01258, Aug 2019

**Gupta, Iti** and Kesavan, Praseetha E., "Carbazole substituted BODIPYs", *Frontiers in Chemistry*, DOI: 10.3389/fchem.201900841, vol 7, Dec 2019

**Jana, Palash\*** and **Kanvah, Sriram**, "Aggregation-induced emission and organogels with chiral and racemic pyrene substituted cyanostyrenes", *Langmuir*, DOI: 10.1021/acs.langmuir.9b03946, vol 36, no 10, pp 2720-2728, Feb 2020

**Jana, Palash\***; **Mukherjee, Tarushyam\***; Khurana, Raman; Barooah, Nilotpal; **Soppina, Virupakshi**; Mohanty, Jyotirmayee and **Kanvah, Sriram**, "Fluorescence enhancement of Cationic Styrylcoumarin-Cucurbit[7]uril complexes: enhanced stability and cellular membrane localization", *Journal of Photochemistry and Photobiology A: Chemistry*, DOI: 10.1016/j.jphotochem.2019112062, Aug 2019

**Jana, Palash\***; **Paramasivam, Mahalingavelar\***; **Khandelwal, Shikha\***; **Dutta, Arnab** and **Kanvah, Sriram**, "Perturbing the AIEE activity of pyridine functionalized  $\alpha$ -cyanostilbenes with donor substitutions: an experimental and DFT study", *New Journal of Chemistry*, DOI: 10.1039/C9NJ03693H, vol 44, no 1, pp 218-230, Nov 2019

**Jana, Palash\***; **Patel, Nishaben\***; **Mukherjee, Tarushyam\***; **Soppina, Virupakshi** and **Kanvah, Sriram**, "A "Turn-On" Michler's Ketone-benzimidazole fluorescent probe for selective detection of serum albumins", *New Journal of Chemistry*, DOI: 10.1039/C9NJ01972C, vol 43, no 27, pp 10859-10867, July 2019

**Juale, Kapil\***; **Shaik, Althaf\*** and **Kirubakaran, Sivapriya\***, "Inhibitors of Inosine 5'-monophosphate dehydrogenase as emerging new age antimicrobial agents", *MedChemComm*, DOI: 10.1039/C9MD00179D, May. 2019

**Katla, Jagadish\***; **Shaik, Althaf\***; **Dahiwadkar, Rahul\***; **Thiruvengkatam, Vijay** and **Kanvah, Sriram**, "One and two component organogels with cyanostilbene without any auxiliary substituents", *ChemPlusChem*, DOI: 10.1002/cplu.201900564, vol 84, no 12, pp 1789-1795, Dec 2019

**Katla, Jagadish\***; **Shaik, Althaf\***; **Dahiwadkar, Rahul\***; **Thiruvengkatam, Vijay** and **Kanvah, Sriram**, "One and two component organogels with cyanostilbene without any auxiliary substituents", *ChemPlusChem*, DOI: 10.1002/cplu.201900605, Oct 2019 (Cover Page)

**Kesavana, Praseetha E.\***; Pandeya, Vijayalakshmi; Raza, Md Kausar; Mori, Shigeki and **Gupta, Iti**, "Water soluble thioglycosylated BODIPYs for mitochondria targeted cytotoxicity", *Bioorganic Chemistry*, DOI: 10.1016/j.bioorg.2019103139, July 2019

**Kumar, Saket\***; **Khatua, Saumyakanti** and **Thareja, Prachi**, "Fumed alumina-in-nematic liquid crystal suspensions under shear and electric field", *Rheologica Acta*, DOI: 10.1007/s00397-019-01132-4, vol 58, no 3-4, pp 203-216, Apr 2019

**Kumari, Beena\***; **Singh, Amit\***; **Jana, Palash\***; **Radhakrishna, Mithun** and **Kanvah, Sriram**, "White light emission in water through admixtures of donor- $\pi$ -acceptor siblings: experiment and simulation", *New Journal of Chemistry*, DOI: 10.1039/C9NJ02389E, July 2019

**Kutwal, Mahesh\* S.**; **Dev, Sachin\*** and **Appayee, Chandrakumar**, "Catalytic regioselective  $\gamma$ -Methylenation of  $\alpha,\beta$ -Unsaturated aldehydes using formaldehyde via vinyllogous aldol condensation", *Organic Letters*, DOI: 10.1021/acs.orglett.8b04110, vol 21, no 8, pp 2509-2513, Apr 2019

**Kutwal, Mahesh\* S.**; **Padmaja, Venkata M. D.\*** and **Appayee, Chandrakumar**, "Regio- and enantioselective  $\alpha,\gamma$ -dialkylation of  $\alpha,\beta$ -unsaturated aldehydes through cascade organocatalysis", *European Journal of Organic Chemistry*, DOI: 10.1002/ejoc.202000245, Mar 2020

Li, Dan; **Kumari, Beena\***; Makabenta, Jessa Marie; Gupta, Akash and Rotello, Vincent, "Effective detection of bacteria using metal nanoclusters", *Nanoscale*, DOI: 10.1039/C9NR08510F, vol 11, no 46, pp 22172-22181, Nov 2019

Li, Dan; **Kumari, Beena\***; Zhang, Xianzhi; Wang, Cuiping; Mei, Xifan and Rotello, Vincent M., "Purification and separation of ultra-small metal nanoclusters", *Advances in Colloid and Interface Science*, DOI: 10.1016/j.cis.2019102090, vol 276, Feb 2020

Manhas, Anu; **Lone, Mohsin Y.\*** and Jha, Prakash C., "In search of the representative pharmacophore hypotheses of the enzymatic proteome of Plasmodium falciparum: a multicomplex-based approach", *Molecular Diversity*, DOI: 10.1007/s11030-018-9885-5, vol 23, no 2, pp 453-470, May 2019

Manhas, Anu; Patel, Dhaval; **Lone, Mohsin Y.\*** and Jha, Prakash C., "Identification of natural compound inhibitors against PfDXR: a hybrid structure based molecular modeling approach and molecular dynamics simulation studies", *Journal of Cellular Biochemistry*, DOI: 10.1002/jcb.28714, Apr 2019

**Maurya, Vidyasagar\*** and **Appayee, Chandrakumar**, "Enantioselective total synthesis of potent 9 $\beta$ -11-hydroxyhexahydrocannabinol", *The Journal of Organic Chemistry*, DOI: 10.1021/acs.joc.9b02962, Dec 2019

**Mir, Ab Qayoom\***; **Dolui, Dependu\***; **Khandelwal, Shikha\***; **Bhatt, Harshil**; **Kumari, Beena\***; **Barman, Sanmitra**; **Kanvah, Sriram** and **Dutta, Arnab**, "Developing photosensitizer cobaloxime hybrids for solar-driven H<sub>2</sub> production in aqueous aerobic conditions", *Journal of Visualized Experiments*, DOI: 10.3791/60231, no 152, Oct 2019

**Mir, Ab Qayoom\***; **Joshi, Gayatri\***; **Ghosh, Piue\***; **Khandelwal, Shikha\***; **Kar, Ashish\***; **Hegde, Ravi S.**; **Khatua, Saumyakanti** and **Dutta, Arnab**, "Plasmonic gold nanoprisms-Cobalt molecular complex dyad mimics Photosystem-II for visible-NIR illuminated neutral water oxidation", *ACS Energy Letters*, DOI: 10.1021/acsenenergylett.9b01683, vol 4, no 10, pp 2428-2435, Oct 2019

**Mir, Ab Qayoom\***; **Joshi, Gayatri\***; **Ghosh, Piue\***; **Khandelwal, Shikha\***; **Kar, Ashish\***; **Hegde, Ravi S.**; **Khatua, Saumyakanti** and **Dutta, Arnab**, "Plasmonic gold nanoprisms-Cobalt molecular complex dyad mimics Photosystem-II for visible-NIR illuminated neutral water oxidation", *ACS Energy Letters*, vol 4, no 10, Oct 2019 (Cover Page)

**Mukherjee, Tarushyam\***; **Siva, Aravinta\***; **Bajaj, Komal\***; **Soppina, Virupakshi** and **Kanvah, Sriram**, "Imaging mitochondria and plasma membrane in live cells using solvatochromic styrylpyridines", *Journal of Photochemistry and Photobiology B: Biology*, DOI: 10.1016/j.jphotobiol.2019111732, vol 203, Dec 2019

Nandi, Aditi; Ghosh, Chandramouli and **Basu, Sudipta**, "Polymer conjugated graphene-oxide nanoparticles impair nuclear DNA and Topoisomerase I in cancer", *Nanoscale Advances*, DOI: 10.1039/C9NA00617F, vol 1, no 12, pp 4965-4971, Nov 2019

Nandi, Aditi; Ghosh, Chandramouli; **Bajpai, Aman\*** and **Basu, Sudipta**, "Graphene oxide nanocell for impairing topoisomerase and DNA in cancer cells", *Journal of Materials Chemistry B*, DOI: 10.1039/C9TB00336C, vol 7, no 26, pp 4191-4197, May 2019

Nellaippan, Subramanian and **Sharma, Sudhanshu**, "Substitution of Zinc(II) in Nickel(II) Oxide as Proficient Copper-Free Catalysts for Selective CO<sub>2</sub> Electroreduction", *ACS Applied Energy Materials*, DOI: 10.1021/acsaem.9b00242, May 2019

Nellaippan, Subramanian; Katiyar, Nirmal Kumar; Kumar, Ritesh; Parui, Arko; Malviya, Kirtiman Deo; Pradeep, K. G.; Singh, Abhishek K.; **Sharma, Sudhanshu**; Tiwari, Chandra Sekhar and Biswas, Krishanu, "High-entropy alloys as catalysts for the CO<sub>2</sub> and CO reduction reactions: experimental

realization", ACS Catalysis, DOI: 10.1021/acscatal.9b04302, vol 10, no 6, pp 3658-3663, Mar 2020

Nellaippan, Subramanian; Kumar, Ritesh; Shivakumara, C.; Irusta, Silvia; Hachtel, Jordan A.; Idrobo, Juan-Carlos; Singh, Abhishek Kumar; Tiwary, Chandra Sekhar and **Sharma, Sudhanshu**, "Electroreduction of carbon dioxide into selective hydrocarbon using isomorphous atomic substitution in stable copper oxide", ACS Sustainable Chemistry & Engineering, DOI: 10.1021/acssuschemeng.9b05087, vol 8, no 1, pp 179-189, Nov 2019

**Pandey, Poonam\*** and **Mallajosyula, Sairam S.**, "Elucidating the role of key structural motifs in antifreeze glycoproteins", Physical Chemistry Chemical Physics, DOI: 10.1039/C8CP06743K, 2019

**Pandey, Poonam\***; Aytenfisu, Asaminew H.; MacKerell, Alexander D. and **Mallajosyula, Sairam S.**, "Drude polarizable force field parametrization of Carboxylate and N-acetyl Amine Carbohydrate derivatives", Journal of Chemical Theory and Computation, DOI: 10.1021/acs.jctc.9b00327, Aug 2019

**Pandey, Vijayalakshmi\***; Jain, Drishti; Pareekh, Nitesh; and **Gupta, Itri**, "Pd(II) porphyrins: synthesis, singlet oxygen generation and photoassisted oxidation of aldehydes to carboxylic acids", Inorganica Chimica Acta, DOI: 10.1016/j.ica.2019119339, vol 502, Dec 2019

**Pandey, Vijayalakshmi\***; Rather, Hiral; **Yadav, sarla\***; Vasita, Rajesh and **Gupta, Itri**, "Synthesis and biological studies of amphiphilic carbazole pyridinium conjugates", Journal of Porphyrins and Phthalocyanines, DOI: 10.1142/S1088424619501384, Sep 2019

Patil, Sohan; **Ghosh, Deepshikha\***; **Radhakrishna, Mithun** and **Basu, Sudipta**, "Mitochondrial impairment by cyanine-based small molecules induces apoptosis in cancer cells", ACS Medicinal Chemistry Letters, DOI: 10.1021/acsmmedchemlett.9b00304, vol 11, no 1, pp 23-28, Dec 2019

Patil, Sohan; Pandey, Shalini; **Singh, Amit\***; **Radhakrishna, Mithun** and **Basu, Sudipta**, "Hydrazide hydrazone small molecules as AIEgens: illuminating mitochondria in Cancer cells", Chemistry – A European Journal, DOI: 10.1002/chem.201901074, vol 25, no 35, pp 8229-8235, Apr 2019

**Purushothamana, Gayathri\***; Angirab, Deekshi and **Thiruvengatam, Vijay**, "Investigation of nicotinamide and isonicotinamide derivatives: a quantitative and qualitative structural analysis", Journal of Molecular Structure, DOI: 10.1016/j.molstruc.201907.033, vol 1197, pp 34-44, Dec 2019

**Rani, Lata\***; Mittal, Jeetain and **Mallajosyula, Sairam S.**, "Effect of phosphorylation and O-GlcNAcylation on proline-rich domains of Tau", The Journal of Physical Chemistry B, DOI: 10.1021/acs.jpcb.9b11720, vol 124, no 10, pp 1909-1918, Feb 2020

Saini, Jyoti; **Dubey, Pankaj\***; Verma, Kanupriya; Karir, Ginny and Viswanathan, K. S., "Intermolecular complexes and molecular conformations directed by hydrogen bonds: matrix isolation and Ab initio studies", Journal of the Indian Institute of Science, DOI: 10.1007/s41745-019-00152-6, vol 100, no 1, pp 167-190, Jan 2020

**Sarkale, Abhijeet\*** M.; **Maurya, Vidyasagar\***; **Giri, Sachin\*** and **Appayee, Chandrakumar**, "Stereodivergent synthesis of chiral paraconic acids via dynamic kinetic resolution of 3-Acylsuccinimides", Organic Letters, DOI: 10.1021/acscorglett.9b01445, vol 21, no 11, pp 4266-4270, June 2019

Shah, Chetan P.; **Purushothaman, Gayathri\***; **Thiruvengatam, Vijay**; **Kirubakaran, Sivapriya\***; **Juvala, Kapil##** and **Kharkar, Prashant S.**, "Design, synthesis and biological evaluation of Helicobacter pylori inosine 5'-monophosphate dehydrogenase

(HPIIMPDH) inhibitors. Further optimization of selectivity towards HPIIMPDH over human IMPDH2", Bioorganic Chemistry, DOI: 10.1016/j.bioorg.201904.001, vol 87, pp 753-764, June 2019

**Shaik, Althaf\*** and **Kirubakaran, Sivapriya\***, "Evolution of PIKK family kinase inhibitors: a new age cancer therapeutics", Frontiers in Bioscience, Landmark Edition, DOI: 10.2741/4866, vol 25, no 8, pp 1510-1537, Mar 2020

**Shaik, Althaf\***; **Angira, Deekshi\*** and **Thiruvengatam, Vijay**, "Insights into supramolecular assembly formation of diethyl aryl amino methylene malonate (DAM) derivatives assisted via non-covalent interactions", Journal of Molecular Structure, DOI: 10.1016/j.molstruc.201904.114, May 2019

Shukla, Pooja; Roy, Soumalya; **Dolui, Dependu\***; Mancisidor, Walter Canon and Das, Sourav, "Pentamuclear spirocyclic Ni 4 Ln derivatives: field induced slow magnetic relaxation in the dysprosium and erbium analogues", European Journal of Inorganic Chemistry, DOI: 10.1002/ejic.201901350, Feb 2020

Sihag, Amita and **Mallajosyula, Sairam S.**, "Adsorption of DNA bases on two dimensional boron sheets", ChemistrySelect, DOI: 10.1002/slct.201804035, vol 4, no 12, pp 3308-3314, Apr 2019

**Singh, Neeru#**; **Bhakuni, Rashmi\***; **Chhabria, Dimple#** and **Kirubakaran, Sivapriya\***, "MDC1 depletion promotes cisplatin induced cell death in cervical cancer cells", BMC Research Notes, DOI: 10.1186/s13104-020-04996-5, vol 13, no 1, Mar 2020

**Singh, Rana Pratap**; **Arora, Payal\***; Nellaippan, Subramanian; Shivakumara, C.; Irusta, Silvia; Paliwal, Manas and **Sharma, Sudhanshu**, "Electrochemical insights into layered La2CuO4 perovskite: active ionic copper for selective CO2 electroreduction at low overpotential", Electrochimica Acta, DOI: 10.1016/j.electacta.2019134952, vol 326, Dec 2019

Sonam Roy, **Amarjyoti Das Mahapatra\***, Taj Mohammad, Preeti Gupta, Mohamed F. Alajmi, Afzal Hussain, Md. Tabish Rehman, **Bhaskar Datta**, and Md. Imtaiyaz Hassan. "Design and

Development of Novel Urea, Sulfonylurea, and Sulfonamide Derivatives as Potential Inhibitors of Sphingosine Kinase 1." Pharmaceuticals (2020). (doi.org/10.3390/ph13060118).

**Thambi, Varsha\***; **Kar, Ashish\***; **Ghosh, Piue\***; **Paital, Diptiranjana\***; Gautam, Abhay Raj Singh and **Khatua, Saumyakanti**, "Synthesis of complex nanoparticle geometries via pH-Controlled overgrowth of gold nanorods", ACS Omega, DOI: 10.1021/acsomega.9b01119, Aug 2019

Zhuang, Pengfei; Zhang, Peng; Li, Kuo; **Kumari, Beena\***; Li, Dan and Mei, Xifan, "Silver nanoclusters encapsulated into metal-organic frameworks for rapid removal of heavy metal ions from water", Molecules, DOI: 10.3390/molecules24132442, vol 24, no 13, July 2019

## PAPERS PRESENTED

### AT CONFERENCE

**Dolui, Dependu\*** and **Dutta, Arnab**, "Enzyme inspired outer coordination sphere feature enables photocatalytic hydrogen (H2) production by synthetic cobalt complex in aerated aqueous solution", in the Indo-French Symposium on Small Molecule Activation for Fuels and Commodity Chemicals Production, Indian Association for the Cultivation of Science (IACS), Kolkata, IN, Nov 27-29, 2019

**Dolui, Dependu\***, **Khandelwal, Shikha\*** and **Dutta, Arnab**, "Water mediated proton relays: natural condition ready molecular hydrogen evolution reaction catalyst", in the Souvenir cum Bulletin of Indian Society for ElectroAnalytical Chemistry - Proceedings of 14th International conference on Electrochemistry in Industry, Health & Environment (EIHE) 2020, Bhabha Atomic Research Centre

(BARC), Mumbai, IN, Jan 21-25, 2020 (Best Presentation Award)

**Dolui, Dependu\***; **Kumar, Shivam\*** and **Dutta, Arnab**, "Water assisted proton relay enhances homogeneous electrocatalytic hydrogen production rate and stability by molecular cobalt catalyst", in the Souvenir cum Bulletin of Indian Society for ElectroAnalytical Chemistry - Proceedings of 14th International conference on Electrochemistry in Industry, Health & Environment (EIHE) 2020, Bhabha Atomic Research Centre (BARC), Mumbai, IN, Jan 21-25, 2020

**Ghosh, Piue\***; **Joshi, Gayatri\***; **Chakraborty, Arup Lal**; **Hegde, Ravi** and **Khatua, Saumyakanti**, "Synthesis of gold nanodroplets with field enhancement of 10<sup>5</sup> at their tips using a simple wet-chemical method", in the 2019 Conference on Lasers and Electro-Optics Europe & European Quantum Electronics Conference (CLEO/Europe-EQEC), Munich, DE, June 23-27, 2019

**Ghosh, Piue\***; **Kar, Ashish\***; **Chakraborty, Arup Lal**; **Sharma, Sudhanshu**; **Dutta, Arnab** and **Khatua, Saumyakanti**, "Photoelectrochemical water splitting with cobalt oxide coated gold nanorods under visible excitation", in the 2019 Conference on Lasers and Electro-Optics Europe & European Quantum Electronics Conference (CLEO/Europe-EQEC), Munich, DE, June 23-27, 2019

**Ghosh, Piue\***; **Kar, Ashish\***; **Thambi, Varsha\***; **Chakraborty, Arup Lal** and **Khatua, Saumyakanti**, "Large and controllable light-induced shift of the longitudinal surface plasmon resonance of gold nanorods submerged in hydroquinone solution", in the 2019 Workshop on Recent Advances in Photonics (WRAP), Guwahati, IN, Dec 13-14, 2019

Ratrey, Poonam; **Datta, Bhaskar**; **Dalvi, Sameer V.** and **Mishra, Abhijit**, "Octaarginine-drug complexes for drug delivery to microbes and enhanced potency", in the 56th Japanese Symposium (JPS) 2019, Tokyo, Japan, Oct 23-25, 2019

Ratrey, Poonam; **Datta, Bhaskar** and **Mishra, Abhijit**, "Microscopy based approach investigating the bacterial cell membrane damage by peptide-drug hybrids", in the 12th Asia-Pacific Microscopy Conference (APMC-2020), Hyderabad, IN, Feb 3-7, 2020

## POSTERS PRESENTED

**Bhakuni, Rashmi\***; **Shaik, Althaf\***; **Priya, Bhanu\*** and **Kirubakaran, Sivapriya\***, "Characterization of SPK 98, an ATP-competitive inhibitor of ATR and mTOR", in Regional Young Investigator Meeting - India Bioscience, IIT Jodhpur, IN, Oct 31-Nov 2 2019

**Bharti, Jaya\***; **Mir, Ab Gayoom\***; **Dolui, Dependu\*** and **Dutta, Arnab**, "Exploring the photocatalytic hydrogen production by ruthenium polypyridine and cobaloxime assemblies", in the 18th Modern trends of Inorganic Chemistry (MTIC XVIII), IIT Guwahati, Guwahati, IN, Dec 10-13, 2019

**Bhoir, Siddhant\***; Singh, Vibha; Chikhale, Rupesh; **Hussain, Javeena\***; Bryce, Richard; De Benedetti, Arrigo and **Kirubakaran, Sivapriya\***, "Targeting prostate cancer: the tousel way", in the 2020 Meeting of DNA Damage, Mutation and Cancer Gordon Research Conference, Ventura, US, Mar 1-6, 2020

**Dahiwardkar, Rahul\***; **Rajwar, Anjali\***; Kharbanda, Sumit\*; **Bhatia, Dhiraj** and **Kanvah, Sriram**, "Self-assembling, red-emitting pyridinium based cationic probes targeting nucleus and plasma membrane in mammalian cells", in the 5th DAE-BRNS Biennial Trombay Symposium on Radiation & Photochemistry (TSRP-2020), Bhabha Atomic Research Centre (BARC), Mumbai, IN, Jan 5-9, 2020

**Dahiwardkar, Rahul\***; **Rajwar, Anjali\***; Kharbanda, Sumit\*; **Bhatia, Dhiraj** and **Kanvah, Sriram**, "Styryl pyridinium fluorescence probes for staining nucleus", in the National Conference in Synthetic



Biology, Indrashil University, Kadi, IN, Jan 24-25, 2020 (Best Poster Award)

**Das, Sreewashi\*** and **Dutta, Arnab**, "Effect of incorporation of nitrogenous bases on the electrocatalytic H<sub>2</sub> production by cobaloximes", in the 18th Modern trends of Inorganic Chemistry (MTIC XVIII), IIT Guwahati, Guwahati, IN, Dec 10-13, 2019

**Dolui, Dependu\*** and **Dutta, Arnab**, "Water assisted proton relay increases stability and hydrogen production activity for cobaloximes", in the 18th Modern trends of Inorganic Chemistry (MTIC XVIII), IIT Guwahati, Guwahati, IN, Dec 10-13, 2019 (Best Poster Award)

**Dolui, Dependu\***; **Khandelwal, Shikha\*** and **Dutta, Arnab**, "Role of basic peripheral groups in the development of hydrogen evolution reaction catalyst", in the 7th Asian Network for Natural & Unnatural Materials (ANNUM VII), Gujarat University, Ahmedabad, IN, Sep 27-29, 2019 (Best Poster Award)

**Ghorai, Santanu\*** and **Dutta, Arnab**, "Inclusion of bio inspired peripheral basic amino acids enhances the electrocatalytic hydrogen production by cobaloximes", in the 18th Modern trends of Inorganic Chemistry (MTIC XVIII), IIT Guwahati, Guwahati, IN, Dec 10-13, 2019

**Jana, Palash\***; **Patel, Nishaben\***; **Soppina, Virupakshi** and **Kanvah, Sriram**, "A turn-On Michler's Ketone-Benzimidazole fluorescent probe for selective detection of serum albumins", in International Symposium on Dyes & Pigments: modern colorants; the synthesis and applications of  $\pi$ -systems, Seville, Spain, Sep 8-11, 2019

**Jana, Palash\***; **Patel, Nishaben\***; **Soppina, Virupakshi** and **Kanvah, Sriram**, "A turn-On Michler's Ketone-Benzimidazole fluorescent probe for selective detection of serum albumins", in Regional Young Investigator Meeting - India Bioscience, IIT Jodhpur, IN, Oct 31-Nov 2 2019

**Jana, Palash\***; **Patel, Nishaben\***; **Soppina, Virupakshi** and **Kanvah, Sriram**, "Cationic red emitting probes for the rapid and selective detection of SO<sub>2</sub> derivatives in aqueous and cellular environments", in 7th Asian network for natural and unnatural materials (Annum-VII), Ahmedabad, IN, Sep 27-29, 2019

**Khandelwal, Shikha\***; **Zamader, Afridi\***; **Dolui, Dependu\*** and **Dutta, Arnab**, "Tuning the peripheral electronic and basic properties of Co-bis-(oxime-imine) complexes to improve electrocatalytic hydrogen production", in the 19th International Conference on Biological Inorganic Chemistry (ICBIC), Interlaken, CH, Aug 11-16 2019

**Kumar, Shivam\***; **Dolui, Dependu\*** and **Dutta, Arnab**, "Acid and aerobic stable cobalt complex having equatorial auxiliary proton channel for hydrogen evolution", in the 18th Modern trends of Inorganic Chemistry (MTIC XVIII), IIT Guwahati, Guwahati, IN, Dec 10-13, 2019

**Kumari, Beena\***; **P. I., Pradeepkumar** and **Kanvah, Sriram**, "Cationic red-emitting fluorophore: a light-up NIR fluorescent probe for G4-DNA", in Regional Young Investigator Meeting - India Bioscience, IIT Jodhpur, IN, Oct 31-Nov 2 2019

**Kutwal, Mahesh\* S.**; **Dev, Sachin\*** and **Appayee, Chandrakumar**, "Catalytic regioselective  $\gamma$ -methylation of  $\alpha,\beta$ -unsaturated aldehydes using formaldehyde", in the International Conference on Recent Trends in Catalysis (RTC 2020), National Institute of Technology Calicut, IN, Feb 26-29, 2020 (Best Poster Award)

**Kutwal, Mahesh\* S.**; **Dev, Sachin\*** and **Appayee, Chandrakumar**, "Highly regioselective  $\gamma$ -functionalization of  $\alpha,\beta$ -unsaturated aldehydes using organocatalysis", in the 20th Tetrahedron Symposium, Bangkok, TH, June 18-21, 2019

**Manav, Neha\*** and **Gupta, Iti**, "Developing photosensitizers for antimicrobial photodynamic therapy", in the Modern Trends in Inorganic Chemistry (MTIC-2019), IIT Guwahati, Guwahati, IN,

Dec 11-14, 2019

**Manav, Neha\*** and **Gupta, Iti**, "Exploring application of 5d transition metal dipyrin complexes in photodynamic therapy", in the International conference on biomaterial-based therapeutic engineering and regenerative medicine (BioTerm 2019), IIT Kanpur, Kanpur, IN, Nov 28-Dec 1, 2019

**Manav, Neha\***; **A., Anu\*** and **Gupta, Iti**, "Dipyrinates complexes with 4d and 5d metals: synthesis, crystal structures and singlet oxygen generation studies", in the 7th Asian Network for Natural & Unnatural Materials (ANNUM VII), Gujarat University, Ahmedabad, IN, Sep 27-29, 2019

**Manav, Neha\***; **Gupta, Iti** and **Zheng, Gang**, "Challenges in anti-cancer therapy and an alternative approach with liposomal metal nano-conjugates", in the Symposium on Frontier Problems in Nanoscience and Nanotechnology (FPNN-2020), IIT Gandhinagar, IN, Feb 14-15, 2020 (Best Poster Award)

**Mukherjee, Tarushyam\***; **Jana, Palash\***; **Khurana, Raman**; **Barooah, Nilotpal**; **Mohanty, Jyotirmayee**; **Soppina, Virupakshi** and **Kanvah, Sriram**, "Cationic coumarin-CB [7] complexes: enhanced stability in live cell imaging and cellular membrane localisation", in the 5th DAE-BRNS Biennial Trombay Symposium on Radiation & Photochemistry (TSRP-2020), Bhabha Atomic Research Centre (BARC), Mumbai, IN, Jan 5-9, 2020

**Pandey, Vijayalakshmi\***; **Joshi, Puja** and **Gupta, Iti**, "Glycosylated porphyrins as a potential PDT agent", in the 7th Asian Network for Natural & Unnatural Materials (ANNUM VII), Gujarat University, Ahmedabad, IN, Sep 27-29, 2019

**Ravi, Srimadhavi\***; **Barui, Sugata\*** and **Kirubakaran, Sivapriya\***, "Targeting the Ataxia Telangiectasia Mutated (ATM) kinase for alleviating cancer", in the 68th Gordon Research Conference for Natural Products and Bioactive Compounds, Proctor Academy, Andover, NH, US, July 28- Aug 2, 2019

**Ravi, Srimadhavi\***; **Barui, Sugata\*** and **Kirubakaran, Sivapriya\***, "Targeting the DDR pathway: the pathway to success against the 'Emperor of Maladies'", in the Gordon Research Seminar Series for Natural Products and Bioactive Compounds, Proctor Academy, Andover, NH, US, July 27-28, 2019

**Rimjhim\***; **Shaik, Althaf\*** and **Kirubakaran, Sivapriya\***, "Development of inosine-5-monophosphate dehydrogenase (IMPDH) inhibitors against helicobacter pylori infection", in the 26th Indian Society for Chemists and Biologists Conference (ISCBIC)-Nirma Institute of Pharmacy International Conference (NIPICON) 2020, Nirma University, Ahmedabad, IN, Jan 22-24, 2020

**Sahrawat, Parul\***; **Hussain, Javeena\***; **C. Vaishali\*** and **Kirubakaran, Sivapriya\***, "Design, synthesis and biological studies of small molecule inhibitors targeting Toslled-like kinase (TLK1/1B) as anti-cancer agent", in the 26th Indian Society for Chemists and Biologists Conference (ISCBIC)-Nirma Institute of Pharmacy International Conference (NIPICON) 2020, Nirma University, Ahmedabad, IN, Jan 22-24, 2020

**Yadav, Monika\***; **Jana, Palash\*** and **Kanvah, Sriram**, "Synthesis of  $\pi$  conjugated acryl benzimidazole derivative for selective detection of picric acid", in 7th Asian network for natural and unnatural materials (Annum-VII), Ahmedabad, IN, Sep 27-29, 2019

**Yadav, Monika\***; **Jana, Palash\*** and **Kanvah, Sriram**, "Synthesis of  $\pi$ -conjugated acryl benzimidazole derivative for selective detection of picric acid", in the 15th DAE-BRNS Biennial Trombay Symposium on Radiation & Photochemistry (TSRP-2020), Bhabha Atomic Research Centre (BARC), Mumbai, IN, Jan 5-9, 2020 (Best Poster Award)

## CIVIL ENGINEERING

### BOOK CHAPTER

**Hussain, Majid\*** and **Sachan, Ajanta**, "Volume compressibility and pore pressure response of Kutch soils with varying plastic and non-plastic fines", in Geotechnics for Transportation Infrastructure, DOI: 10.1007/978-981-13-6713-7\_52, Springer, pp 651-665, June 2019, ISBN: 9789811367120, 9789811367137.

Jayachandran, M.C.; Evangeline, Y. Sheela; Rao, G.V.; Sayida, M.K.; Krishna, A. and Vijayan, A., "Study on the coir geotextile reinforced flexible pavements using DCP", in Recent advances in materials, mechanics and management, London, UK: CRC Press, pp 40-43 May 2019, ISBN: 9780815378891.

**Ram, Bhagwana\***; **Sharma, Divya** and **Kumar, Manish**, "Two sides of a coin: targets and by-products of water and wastewater treatment", in Emerging issues in the water environment during anthropocene, DOI: 10.1007/978-981-32-9771-5\_2, Springer, pp 15-29, Aug 2019, ISBN: 9789813297715.

**Singh, Ashwin\***; **Patel, Arbind Kumar\*** and **Kumar, Manish**, "Mitigating the risk of arsenic and fluoride contamination of groundwater through a multi-model framework of statistical assessment and natural remediation techniques", in Emerging issues in the water environment during anthropocene, DOI: 10.1007/978-981-32-9771-5\_15, Springer, pp 285-300, Aug 2019, ISBN: 9789813297715.

### BOOKS EDITED

**Prashant, Amit**; **Sachan, Ajanta** and **Desai, Chandrakant S.** (Eds.), Advances in computer methods and geomechanics: IACMAG Symposium 2019 Volume 1, Singapore: Springer Nature, 2020, ISBN: 9789811508851.

**Prashant, Amit**; **Sachan, Ajanta** and **Desai, Chandrakant S.** (Eds.), Advances in computer methods and geomechanics: IACMAG Symposium 2019 Volume 2, Singapore: Springer Nature, 2020, ISBN: 9789811508899.

### E-PRINT ARCHIVES

**Asoka, Akarsh\*** and **Mishra, Vimal**, "Groundwater pumping to increase food production causes persistent groundwater drought in India", arXiv, Cornell University Library, DOI: arXiv:1908.00255, Aug 2019

### JOURNAL ARTICLES

**Aadhar, Saran\*** and **Mishra, Vimal**, "A substantial rise in the area and population affected by dryness in South Asia under 1.5, 2.0 and 2.5C warmer worlds", Environmental Research Letters, DOI: 10.1088/1748-9326/ab4862, vol 14, no 11, Nov 2019

**Aadhar, Saran\*** and **Mishra, Vimal**, "Increased drought risk in South Asia under warming climate: implications of uncertainty in potential evapotranspiration estimates", Journal of Hydrometeorology, DOI: 10.1175/JHM-D-19-0224.1, Mar 2020

**Ali, Haider\***; **Modi, Parth\*** and **Mishra, Vimal**, "Increased flood risk in Indian sub-continent under the warming climate", Weather and Climate Extremes, DOI: 10.1016/j.wace.2019100212, vol 25, Sep 2019

**Ambika, Anukesh Krishnankutty\*** and **Mishra, Vimal**, "Observational evidence of irrigation influence on vegetation health and land surface temperature in India", Geophysical Research Letters, DOI: 10.1029/2019GL084367, Oct 2019

Barbero, Renaud; Fowler, Hayley J.; Blenkinsop, Stephen; Westra, Seth and **Mishra, Vimal**, "A synthesis of hourly and daily precipitation extremes in different climatic regions", Weather and Climate Extremes, DOI: 10.1016/j.wace.2019100219, vol 26,

Dec 2019

**Bhatia, Udit** and Ganguly, Auroop Ratan, "Precipitation extremes and depth-duration-frequency under internal climate variability", *Scientific Reports*, DOI: 10.1038/s41598-019-45673-3, vol 9, no 1, June 2019

**Bhatia, Udit et al.**, "Balancing open science and data privacy in the water sciences", *Water Resources Research*, DOI: 10.1029/2019WR025080, May 2019

Devi, Upasana; **Taki, Kaling\***; **Shukla, Tanya\***; **Sarma, Kali P.**; Hoque, Raza R. and **Kumar, Manish**, "Microzonation, ecological risk and attributes of metals in highway road dust traversing through the Kaziranga National Park, Northeast India: implication for confining metal pollution in the national forest", *Environmental Geochemistry and Health*, DOI: 10.1007/s10653-018-0219-4, vol 41, no 3, pp 1387-1403, June 2019

Epacakchi, Siamak; **Sharma, Nikhil\***; Whittaker, Andrew; Hamburger, Ronald O. and Hortacsu, Ayse, "A cyclic backbone curve for shear-critical reinforced concrete walls", *Journal of Structural Engineering*, DOI: 10.1061/(ASCE)ST.1943-541X.0002277, vol 145, no 4, Apr 2019

**Garg, Shailesh\*** and **Mishra, Vimal**, "Role of extreme precipitation and initial hydrologic conditions on floods in Godavari river Basin, India", *Water Resources Research*, DOI: 10.1029/2019WR025863, Nov 2019

**Hussain, Majid\*** and **Sachan, Ajanta**, "Dynamic behaviour of Kutch soils under cyclic triaxial and cyclic simple shear testing conditions", *International Journal of Geotechnical Engineering*, DOI: 10.1080/19386362.20191608715, Apr 2019

**Hussain, Majid\*** and **Sachan, Ajanta**, "Dynamic characteristics of natural kutch sandy soils", *Soil Dynamics and Earthquake Engineering*, DOI: 10.1016/j.soildyn.2019105717, vol 125, Oct 2019

**Hussain, Majid\*** and **Sachan, Ajanta**, "Effect of loading conditions and stress history on cyclic behavior of Kutch soil", *Geomechanics and Geoengineering*, DOI: 10.1080/17486025.20191635716, June 2019

**Hussain, Majid\*** and **Sachan, Ajanta**, "Static liquefaction and effective stress path response of Kutch soils", *Soils and Foundations*, DOI: 10.1016/j.sandf.201911.004, vol 59, no 6, pp 2036-2055, Dec 2019

**J. S., Nanditha\***; Van der Wiel, Karin; **Bhatia, Udit**; Stone, Daithi; Selton, Frank M. and **Mishra, Vimal**, "A seven-fold rise in the probability of exceeding the observed hottest summer in India in a 2°C warmer world", *Environmental Research Letters*, DOI: 10.1088/1748-9326/ab7555, vol 15, no 4, Feb 2020

**Jadhav, Prajakta R.\*** and **Prashant, Amit**, "Computation of seismic translational and rotational displacements of cantilever retaining wall with shear key", *Soil Dynamics and Earthquake Engineering*, DOI: 10.1016/j.soildyn.2019105966, vol 130, Mar 2020

**Jadhav, Prajakta R.\***; **Rao, Guda Venkatappa**; **Venkataraman M.** and **Prashant, Amit**, "Guidelines for stabilization of silty ravines", *Indian Journal of Geosynthetics and Ground Improvement*, vol 9, no 1, Jan 2020

**Kantesaria, Naman\***; Gupta, Kanika and **Sachan, Ajanta**, "Macroscopic and microscopic study of unsaturated shear strength behaviour of type-F fly ash", *Japanese Geotechnical Society Special Publication*, DOI: 10.3208/jgssp.v07105, vol 7, no 2, pp 686-693, Aug 2019

**Kaurav, Rajkumari\*** and **Mohapatra, Pranab K.**, "Studying the peak discharge through a planar dam breach", *Journal of Hydraulic Engineering*, DOI: 10.1061/(ASCE)HY.1943-7900.0001613, vol 145, no 6, June 2019

**Kumar, Manish**; **Ram, Bhagwana\***; Honda, Ryo; Poopipattana, Chomphunut; Canh, Vu Duc; Chaminda, Tushara and Furumai, Hiroaki,

"Concurrence of antibiotic resistant bacteria (ARB), viruses, pharmaceuticals and personal care products (PPCPs) in ambient waters of Guwahati, India: Urban vulnerability and resilience perspective", *Science of The Total Environment*, DOI: 10.1016/j.scitotenv.2019133640, vol 693, Nov 2019

**Kumar, Manish**; **Ram, Bhagwana\***; Sewwandi, Himaya; Sulfikar; Honda, Ryo and Chaminda, Tushara, "Treatment enhances the prevalence of antibiotic-resistant bacteria and antibiotic resistance genes in the wastewater of Sri Lanka, and India", *Environmental Research*, DOI: 10.1016/j.envres.2020109179, vol 183, Jan 2020

**Kumar, Rahul\*** and **Mishra, Vimal**, "Decline in surface urban heat island intensity in India during heatwaves", *Environmental Research Communications*, DOI: 10.1088/2515-7620/ab121d, vol 1, no 3, Apr 2019

**Mahto, Shanti Shwarup\*** and **Mishra, Vimal**, "Does ERA 5 outperform other reanalysis products for hydrologic applications in India?", *Journal of Geophysical Research: Atmospheres*, DOI: 10.1029/2019JD031155, Aug 2019

Mazumder, Payal; Sharma, Subhash Kumar; **Taki, Kaling\***; Kalamdhad, Ajay S. and **Kumar, Manish**, "Microbes involved in arsenic mobilization and respiration: a review on isolation, identification, isolates and implications", *Environmental Geochemistry and Health*, DOI: 10.1007/s10653-020-00549-8, Mar 2020

**Meghwal, Rakesh\***; **Shah, Deep\*** and **Mishra, Vimal**, "On the changes in groundwater storage variability in Western India using GRACE and well observations", *Remote Sensing in Earth Systems Sciences*, DOI: 10.1007/s41976-019-00026-6, Nov 2019

**Mishra, Vimal**, "Long-term (1870–2018) drought reconstruction in context of surface water security in India", *Journal of Hydrology*, DOI: 10.1016/j.jhydrol.2019124228, vol 580, Jan 2020

**Mishra, Vimal**; Thirumalai, Kaustubh; Singh, Deepti; **Aadhar, Saran\***, "Future exacerbation of hot and dry summer monsoon extremes in India", *npj Climate and Atmospheric Science*, DOI: 10.1038/s41612-020-0113-5, vol 3, no 1, Mar 2020

**Nema, Harshit\*** and **Basu, Dhiman**, "Natural properties of confined masonry buildings – experimental case studies and possible inferences", *International Journal of Masonry Research and Innovation*, DOI: 10.1504/IJMRI.201910019399, vol 4, no 3, 2019

**Pandya, Saloni\*** and **Sachan, Ajanta**, "Effect of frequency and amplitude on dynamic behaviour, stiffness degradation and energy dissipation of saturated cohesive soil", *Geomechanics and Geoengineering*, DOI: 10.1080/17486025.20191680885, Oct 2019

**Pandya, Saloni\*** and **Sachan, Ajanta**, "Experimental studies on effect of load repetition on dynamic characteristics of saturated Ahmedabad cohesive soil", *International Journal of Civil Engineering*, DOI: 10.1007/s40999-019-00392-8, vol 17, no 6, pp 781-792, June 2019

Pattanaik, D. R.; Sahai, A. K.; Mandal, Raju; Phani Muralikrishna, R.; Dey, Avijit; Chattopadhyay, Rajib; Joseph, Susmitha; **Tiwari, Amar Deep\*** and **Mishra, Vimal**, "Evolution of operational extended range forecast system of IMD : prospects of its applications in different sectors", *Mausam*, vol 70, no 2, pp 233-264, Apr 2019

**Ram, Bhagwana\*** and **Kumar, Manish**, "Correlation appraisal of antibiotic resistance with fecal, metal and microplastic contamination in a tropical Indian river, lakes and sewage", *npj Clean Water*, DOI: 10.1038/s41545-020-0050-1, vol 3, no 1, Feb 2020

**Rao, Guda Venkatappa**, "Use of industrial bulk waste materials in Indian infrastructure development: a critical appraisal", *Indian Journal of Geosynthetics and Ground Improvement*, vol 9, no 1, Jan 2020

**Rao, Guda Venkatappa**; Sheela, Evangeline Y. and Sayida, M. K., "Application of coir geotextiles in rural roads of India", *Indian Geotechnical Journal*, DOI: 10.1007/s40098-020-00412-8, Jan 2020

Ravi Prakash, P. and **Srivastava, Gaurav**, "Distributed plasticity model for analysis of steel structures subjected to fire using the direct stiffness method", *Fire Safety Journal*, DOI: 10.1016/j.firesaf.201903.002, vol 105, pp 169-187, Apr 2019

**Rodda, Gopala Krishna\*** and **Basu, Dhiman**, "Spatially correlated vertical ground motion for seismic design", *Engineering Structures*, DOI: 10.1016/j.engstruct.2020110191, vol 206, Mar 2020

**Roy, Anirban\***; **Chawhan, Rohan\*** Shuddhodhan; **Patel, Ritu\***; Varadharajan, Surendar; Tiwari, Laxmi Mani; **Chakraborty, Arup Lal**; **Ghoroi, Chinmay** and **Srivastava, Gaurav**, "Quantifying the CO and CO2 mole fraction in the plume of an aerosol-based fire extinguishing agent using 4560 nm and 4320 nm QCLs", *IEEE Sensors Journal*, DOI: 10.1109/JSEN.20192927081, July 2019

**Sachan, Ajanta**; **Seethalakshmi, P.\*** and **Mishra, Manas C.\***, "Effect of crushing on stress-strain and pore pressure behavior of micaceous Kutch soil under monotonic compression and repeated loading-unloading conditions", *Geotechnical and Geological Engineering*, DOI: 10.1007/s10706-019-00979-x, vol 37, no 6, pp 5269-5283, Dec 2019

**Seethalakshmi, P.\*** and **Sachan, Ajanta**, "Effect of microstructure on stress-strain and pore-pressure response of sabarmati sand under the influence of mica", *Geomechanics and Geoengineering*, DOI: 10.1080/17486025.20191632496, June 2019

**Shah, Deep\*** and **Mishra, Vimal**, "Integrated Drought Index (IDI) for drought monitoring and assessment in India", *Water Resources Research*, DOI: 10.1029/2019WR026284, vol 56, no 2, Dec 2019

**Shah, Harsh L.\***; Zhou, Tian; Huang, Maoyi and **Mishra, Vimal**, "Roles of irrigation and reservoir operations in modulating terrestrial water and energy budgets in the Indian sub continental river basins", *Journal of Geophysical Research: Atmospheres*, DOI: 10.1029/2019JD031059, Nov 2019

**Sharma, Ketki et al.**, "Potential limits of capacitive deionization and membrane capacitive deionization for water electrolysis", *Separation Science and Technology*, DOI: 10.1080/01496395.20191608243, vol 54, no 13, pp 2112-2125, Sep 2019

**Singh, Ashwin\***; **Patel, Arbind Kumar\***; Deka, Jyoti Prakash; Das, Aparna; Kumar, Abhay and **Kumar, Manish**, "Prediction of arsenic vulnerable zones in the groundwater environment of a rapidly urbanizing setup, Guwahati, India", *Geochemistry*, DOI: 10.1016/j.jchemer.2019125590, Nov 2019

**Singh, Ashwin\***; **Patel, Arbind Kumar\***; Ramanathan, Algappan and **Kumar, Manish**, "Climatic influences on arsenic health risk in the metamorphic precambrian deposits of Sri Lanka: a re-analysis-based critical review", *Journal of Climate Change*, DOI: 10.3233/JCC200003, vol 6, no 1, pp 15-24, Feb 2020

**Srivastava, Gaurav**; **Nakrani, Dharmit\*** and **Ghoroi, Chinmay**, "Performance of combustible facade systems with glass, ACP and firestops in full-scale, real fire experiments", *Fire Technology*, DOI: 10.1007/s10694-019-00943-4, vol 56, no 4, pp 1575-1598, Jan 2020

**Taki, Kaling\***; Gogoi, Anindita; Mazumder, Payal; Bhattacharya, Satya Sunder and **Kumar, Manish**, "Efficacy of vermitechnology integration with Upflow Anaerobic Sludge Blanket (UASB) and activated sludge for metal stabilization: a compliance study on fractionation and biosorption", *Journal of Environmental Management*, DOI: 10.1016/j.jenvman.201901.006, vol 236, pp 603-612, Apr 2019

**Tiwari, Amar Deep\*** and **Mishra, Vimal**, "Prediction of reservoir storage anomalies in India", *Journal of Geophysical Research: Atmospheres*, DOI:



10.1029/2019JD030525, vol 124, no 7, pp 3822-3838, Apr 2019

## OTHERS

**Mishra, Vimal**, "Climate change is here already, and we're not ready", Firstpost, May 20, 2019

## PAPERS PRESENTED

### AT CONFERENCE

**Aadhar, Saran\***; Swain, S. and Rath, D. R., "Application and performance assessment of SWAT hydrological model over Kharun river basin, Chhattisgarh, India", in the World Environmental and Water Resources Congress 2019, Pittsburgh, US, May 19-23, 2019

Bhamidipati, R., **Hussain, Majid\*** Mir, and **Sachan, Ajanta**, "Effect of relative density on non-linear elasticity of sandy soil", in the Proceedings of the 7th International Congress on Computational Mechanics and Simulation (ICCMS 2019), IIT Mandi, IN, Dec 11-13, 2019

**Ghosh, Rajdeep\*** and **Kumar, Manish**, "Evaluation of macro-models for masonry-infilled reinforced concrete frames", in the 13th North American Masonry Conference, Salt Lake City, US, June 17-19, 2019

**Hussain, Majid\*** and **Sachan, Ajanta**, "Effect of Inter-granular Void Ratio on Volume Compressibility and Undrained Shear Response of Base-sand and Natural Silty-sand of Kutch", in the 7th International Symposium on Deformation Characteristics of Geomaterials (IS-Glasgow 2019), Glasgow, UK, June 26-29, 2019

**Hussain, Majid\*** and **Sachan, Ajanta**, "Experimental study on static and cyclic liquefaction on cohesionless sand dam soil", in the 7th International Conference on Earthquake Geotechnical Engineering (ICEGE 2019), Rome, IT, June 17-20, 2019

**Kantesaria, Naman\*** and **Sachan, Ajanta**, "Undrained shear behaviour of fly ash-geosynthetic system with woven and non-woven geotextile", in the Indian Geotechnical Conference (IGC 2019): Geotechnics for Infrastructure Development & Urbanisation (GeoINDUS), SVNIT Surat, IN, Dec 19-21, 2019

**Kantesaria, Naman\***, "Design of geosynthetic reinforced soil wall with rigid facia using nailing", in the Indian Geotechnical Conference (IGC 2019): Geotechnics for Infrastructure Development & Urbanisation (GeoINDUS), SVNIT Surat, IN, Dec 19-21, 2019

**Kantesaria, Naman\***; **Chandra Piyush\*** and **Sachan, Ajanta**, "Geotechnical behaviour of fly ash-bentonite mixture as a liner material", in the Indian Geotechnical Conference (IGC 2019): Geotechnics for Infrastructure Development & Urbanisation (GeoINDUS), SVNIT Surat, IN, Dec 19-21, 2019

**Kaurav, Rajkumari\*** and Mohapatra, Pranab, "Effect of rheology on earthen embankment breaching", in the IAHR World Congress, 2019 (IAHR, 2019), Panama, PA, Sep 1-6, 2019

**Khan, Nasar\*** A. and **Srivastava, Gaurav**, "Development of surrogate models for steel plate shear wall systems for parametric analysis", in the Engineering Mechanics Institute Conference (EMI 2019), Pasadena, US, June 18-21, 2019

**Khan, Nasar\*** A. and **Srivastava, Gaurav**, "Influence of openings on the inelastic response of unstiffened steel plate shear wall systems", in the 7th Structural Engineers World Congress (SEWC 2019), Istanbul, TR, Apr 24-26, 2019

**Khunt, Sagarkumar\*** and **Sachan, Ajanta**, "Effect of plastic fines on geotechnical behavior of ennore sand", in the Indian Geotechnical Conference (IGC 2019): Geotechnics for Infrastructure Development & Urbanisation (GeoINDUS), SVNIT Surat, IN, Dec 19-21, 2019

**Khunt, Sagarkumar\***; **Kantesaria, Naman\***

and **Sachan, Ajanta**, "Interface shear strength behaviour of marginal soils with geotextiles and geogrids", in the Geo-Congress 2020, American Society of Civil Engineers, US, Feb 25-28, 2020

**Pandey, Abhishek K.\*** and Mohapatra, Pranab K., "3D simulation of flow in a right angled channel junction with a pit", in the World Environmental & Water Resources Congress 2019, Pittsburgh, US, May 19-23, 2019

**Pandey, Abhishek K.\***; Mohapatra, Pranab K. and **Jain, Vikrant**, "Studying the channel confluence hydraulics using eddy viscosity models and reynolds stress model", in the 7th International Congress on Computational Mechanics and Simulation (ICCMS 2019), IIT Mandi, IN, Dec 11-13, 2019

Parsi, Sai Sharath; **Kumar, Manish**; **Kumar, Manish**; Boliseti, Chandrakanth; Coleman, Justin and Whittaker, Andrew S., "Implementation and benchmarking of seismic protective devices in MASTODON", in the 25th Structural Mechanics in Reactor Technology (SMIRT25) Conference, Charlotte, US, Aug 4-9, 2019

**Prashant, Amit** and **Bhattacharya, Debayan\***, "Macro to micro insights on instabilities: across lengthscales in granular media", in the Proceedings of the 7th International Congress on Computational Mechanics and Simulation (ICCMS 2019), IIT Mandi, IN, Dec 11-13, 2019

**Shrivastava, Aparna\*** and **Sachan, Ajanta**, "Shear behavior of marginal soil & non woven geotextile system under UU & CU triaxial conditions", in the Indian Geotechnical Conference (IGC 2019): Geotechnics for Infrastructure Development & Urbanisation (GeoINDUS), SVNIT Surat, IN, Dec 19-21, 2019

**Shrivastava, Aparna\***; **Ghanghas Ankit\*** and **Sachan, Ajanta**, "Effect of crushing on stress-strain behavior of fly ash under monotonic compression and repeated loading-unloading conditions", in the Indian Geotechnical Conference (IGC 2019): Geotechnics for Infrastructure Development & Urbanisation (GeoINDUS), SVNIT Surat, IN, Dec 19-21, 2019

**Sonpal, Ashutosh\***; **Kumar, Manish** and Sarma, Hrishikesh D., "Effect of gap between column and masonry infill on the response of masonry-infilled reinforced concrete frames", in the 13th North American Masonry Conference, Salt Lake City, US, June 17-19, 2019

**Upadhyay, Divya\***; **Bhatia, Udit** and Mohapatra, Pranab, "Internal climate variability assessment of return period and depth duration curve for Indian monsoon extreme precipitation", in the AGU Fall Meeting 2019, San Francisco, US, Dec 9-13, 2019

## POSTERS PRESENTED

**Gangwal, Utkarsh\***; Kamboj, Deepak; **Singh, Mayank** and **Bhatia, Udit**, "Cyber-based interdependent infrastructure network resilience analysis", in the Society of Risk Analysis (SRA) - 2019 Annual Meeting: A network of networks approach for cyber-based contingency analysis of interdependent infrastructure networks under uncertainty, Arlington, VA, US, Dec, 2019 (Best Poster Award)

**Garg, Shailesh\*** and **Mishra, Vimal**, "The role of initial hydrologic conditions on observed floods in Godavari Basin, India", in the European Geosciences Union General Assembly 2019, Vienna, AT, Apr 7-12, 2019

**Shah, Deep\*** and **Mishra, Vimal**, "Integrated Drought Index (IDI) to monitor drought severity in Western India", in the European Geosciences Union General Assembly 2019, Vienna, AT, Apr 7-12, 2019

**Shah, Harsh L.\*** and **Mishra, Vimal**, "Water availability under climate change scenario in India", in the 2019 ISIMIP Cross-Sectoral Workshop, Paris, FR, June 4-7, 2019

**Tiwari, Amar Deep\***; Sahai, Atul Kumar and

**Mishra, Vimal**, "Short to sub-seasonal streamflow forecast in India", in IUKWC Workshop: Science and Innovation for Catchment Management, University of Warwick, UK, May 08-10, 2019

## REPORT

**Kumar, Manish**; Whittaker, A. and Constantinou, M., "Seismic isolation of nuclear power plants using sliding bearings", Report NUREG/CR-7254, United States Nuclear Regulatory Commission, Washington DC, US, 2019

## COGNITIVE SCIENCES

### JOURNAL ARTICLES

Iyer, S. Sriresh; **Joseph, Joel V.\*** and **Vashista, Vineet**, "Evolving toward subject-specific gait rehabilitation through single-joint resistive force interventions", Frontiers in Neurobotics, DOI: 10.3389/fnbot.202000015, vol 14, Mar 2020

## PAPERS PRESENTED

### AT CONFERENCE

**Ganesh, Prashanti\***; **Nagaraj, Narmadha\*** and **Miyapuram, Krishna P.**, "The role of partial and complete feedback in reward based decision making", in the 6th Annual Conference of Cognitive Science, BITS Pilani K. K. Birla Goa, IN, Dec 10-12, 2019

**Goyal, Shruti\*** and **Miyapuram, Krishna P.**, "Effect of context relevant initial information on gain-loss asymmetry", in the 6th Annual Conference of Cognitive Science, BITS Pilani K. K. Birla Goa, IN, Dec 10-12, 2019

**Goyal, Shruti\*** and **Miyapuram, Krishna P.**, "Role of emotional experience on descriptive choices under risk", in the 29th Annual Convention of National Academy of Psychology (NAOP), India and International Conference on Making Psychology Deliverable to the Society, Pondicherry University, IN, Dec 20-22, 2019

Iyer, S. Sriresh; **Joseph, Joel V.\***; Sanjeevi, N S S.; Singh, Yogesh and **Vashista, Vineet**, "Development and applicability of a cable driven wearable adaptive rehabilitation suit (WeARS)", in the 28th IEEE International Conference on Robot and Human Interactive Communication (RO-MAN 2019), New Delhi, IN, Oct 14-18, 2019 (Best Paper Award)

**Pandey, Pankaj\***; **Swarnkar, Raunak\***; **Kakaria, Shobhit\*** and **Miyapuram, Krishna Prasad**, "Understanding consumer preferences for movie trailers from EEG using machine learning", in the 6th Annual Conference of Cognitive Science, BITS Pilani K. K. Birla Goa, IN, Dec 10-12, 2019

## COMPUTER SCIENCE AND ENGINEERING

### E-PRINT ARCHIVES

**Das, Bireswar**; **Sharma, Shivdutt\*** and **Vaidyanathan, P. R.\***, "Space efficient representations of finite groups", arXiv, Cornell University Library, DOI: arXiv:2002.11391, Feb 2020

Dash, Saloni; **Dutta, Ritik\***; Guyon, Isabelle; Pavao, Adrien, Yale, Andrew, Bennett, Kristin P., "Synthetic event time series health data generation", arXiv, Cornell University Library, DOI: arXiv:1911.06411, Nov 2019

**Dayal, Pratyush** and **Misra, Neeldhara**, "Deleting to structured trees", arXiv, Cornell University Library, DOI: arXiv:1912.12765, Dec 2019

Dey, Palash; **Misra, Neeldhara**; Nath, Swaprava and Shakya, Garima, "A parameterized perspective on protecting elections", arXiv, Cornell University Library, DOI: arXiv:1905.11838, May 2019

Hazra, Rima; **Singh, Mayank**; Goyal, Pawan; Adhikari, Bibhas and Mukherjee, Animesh,

"The rise and rise of interdisciplinary research: Understanding the interaction dynamics of three major fields – Physics, Mathematics & Computer Science", arXiv, Cornell University Library, DOI: arXiv:1908.03793, Aug 2019

**Jain, Naman\*** and **Singh, Mayank**, "The evolving ecosystem of predatory journals: a case study in Indian perspective", arXiv, Cornell University Library, DOI: arXiv:1906.06856, June 2019

Jia, Yiling; **Batra, Nipun** and Wang, Hongning, "Active collaborative sensing for energy breakdown", arXiv, Cornell University Library, DOI: arXiv:1909.00525, Sep 2019

**Kanojia, Gagan\***; **Kumawat, Sudhakar\*** and **Raman, Shanmuganathan**, "Exploring temporal differences in 3D convolutional neural networks", arXiv, Cornell University Library, DOI: arXiv:1909.03309, Sep 2019

**Kayal, Pratik\***; **Singh, Mayank** and Goyal, Pawan, "Weakly-supervised deep learning for domain invariant sentiment classification", arXiv, Cornell University Library, DOI: arXiv:1910.13425, Oct 2019

**Kumawat, Sudhakar\*** and **Raman, Shanmuganathan**, "Depthwise-STFT based separable convolutional neural networks", arXiv, Cornell University Library, DOI: arXiv:2001.09912, Jan 2020

**Mastan, Indra Deep\*** and **Raman, Shanmuganathan**, "DCIL: Deep Contextual Internal Learning for image restoration and image retargeting", arXiv, Cornell University Library, DOI: arXiv:1912.04229, Dec 2019

**Mastan, Indra Deep\*** and **Raman, Shanmuganathan**, "Multi-level encoder-decoder architectures for image restoration", arXiv, Cornell University Library, DOI: arXiv:1905.00322, May 2019

Pandey, Pradumn Kumar; **Singh, Mayank**; Goyal, Pawan; Mukherjee, Animesh and Chakrabarti, Soumen, "Analysis of reference and citation copying in evolving bibliographic networks", arXiv, Cornell University Library, DOI: arXiv:1912.11894, Dec 2019

**Parmar, Monarch\***; **Jain, Naman\***; **Jain, Pranjali\***; **Sahit, P. Jayakrishna\***; **Pachpande, Soham\***; **Singh, Shruti\*** and **Singh, Mayank**, "NLPEXplorer: exploring the universe of NLP papers", arXiv, Cornell University Library, DOI: arXiv:1910.07351, Oct 2019

**Singh, Davinder\***; **Jain, Naman\***; **Jain, Pranjali\***; **Kayal, Pratik\***; **Kumawat, Sudhakar\*** and **Batra, Nipun**, "PlantDoc: a dataset for visual plant disease detection", arXiv, Cornell University Library, DOI: arXiv:1911.10317, Nov 2019

**Singh, Shubham Kumar\***; **Miyapuram, Krishna P.** and **Raman, Shanmuganathan**, "DeepPFCN: deep parallel feature consensus network for person re-identification", arXiv, Cornell University Library, DOI: arXiv:1911.07776, Nov 2019

## JOURNAL ARTICLES

**Banerjee, Suman#**; Jenamani, Mamata and Pratihari, Dilip Kumar, "A survey on influence maximization in a social network", Knowledge and Information Systems, DOI: 10.1007/s10115-020-01461-4, Mar 2020

**Das, Bireswar**; **Enduri, Murali Krishna\***; Kiyomi, Masashi; **Misra, Neeldhara**; Otachi, Yota; **Reddy, I. Vinod\*** and Yoshimura, Shunya, "On structural parameterizations of firefighting", Theoretical Computer Science, DOI: 10.1016/j.tcs.201902.032, vol 782, pp 79-90, Aug 2019

**Das, Laya\***; **Garg, Dinesh** and **Srinivasan, Babji**, "Neuralcompression: a machine learning approach to compress high frequency measurements in smart grid", Applied Energy, DOI: 10.1016/j.apenergy.2019113966, vol 257, Jan 2020

Dey, Palash; **Misra, Neeldhara** and Narahari, Y., "Parameterized dichotomy of choosing committees based on approval votes in the presence of

outliers", Theoretical Computer Science, DOI: 10.1016/j.tcs.201903.022, vol 783, pp 53-70, Sep 2019

Kalainathan, Diviyani; Goudet, Olivier and **Dutta, Ritik\***, "Causal discovery toolbox: uncovering causal relationships in Python", Journal of Machine Learning Research, vol 21, no 37, pp 1-5, Mar 2020

Kulkarni, Sumeet; Phukon, Khun Sang; Reza, Amit; Bose, Sukanta; **Dasgupta, Anirban**; Krishnaswamy, Dilip and Sengupta, Anand S., "Random projections in gravitational wave searches of compact binaries", Physical Review D, DOI: 10.1103/PhysRevD.99.101503, vol 99, no 10, May 2019

Pandey, Pradumn Kumar and **Singh, Mayank**, "MSP-N: multiple selection procedure with 'N' possible growth mechanisms", PLOS ONE, DOI: 10.1371/journal.pone.0224383, vol 14, no 12, Dec 2019

Pandey, Pradumn Kumar; **Singh, Mayank**; Goyal, Pawan; Mukherjee, Animesh and Chakrabarti, Soumen, "Analysis of reference and citation copying in evolving bibliographic networks", Journal of Informetrics, DOI: 10.1016/j.joi.2019101003, vol 14, no 1, Dec 2019

## PAPERS PRESENTED

### AT CONFERENCE

**Ambavi, Heer\***; **Garg, Ayush\***; **Nitiksha\***; **Sharma, Mridul\***; **Sharma, Rohit\***; **Choudhari, Jayesh\*** and **Singh, Mayank**, "BioGen: automated biography generation", in the ACM/IEEE Joint Conference on Digital Libraries, University of Illinois Urbana-Champaign, IN, June 2-6, 2019

Babu, Pradeep Raj Krishnappa; **Sinha, Sujata\***; **Roshan S., Arvind\*** and **Lahiri, Uttama**, "Virtual reality based collaborative multiplayer task platform for children with autism", in the 10th International Conference on Computing, Communication and Networking Technologies (ICCCNT 2019), IIT Kanpur, IN, July 6-8, 2019

**Batra, Nipun**; **Kukunuri, Rithwik\***; Pandey, Ayush; Malakar, Raktim; Kumar, Rajat; Krystalakos, Odysseas; Zhong, Minhjun, Meira, Paulo and Parson, Oliver, "A demonstration of reproducible state-of-the-art energy disaggregation using NILMTK", in the ACM BuildSys 2019 Conference on Systems for Energy-Efficient Buildings, Cities and Transportation, Columbia University, New York, US, Nov 13-14, 2019

**Batra, Nipun**; **Kukunuri, Rithwik\***; Pandey, Ayush; Malakar, Raktim; Kumar, Rajat; Krystalakos, Odysseas; Zhong, Minhjun, Meira, Paulo and Parson, Oliver, "Towards reproducible state-of-the-art energy disaggregation", in the ACM BuildSys 2019 Conference on Systems for Energy-Efficient Buildings, Cities and Transportation, Columbia University, New York, US, Nov 13-14, 2019

**Das, Bireswar** and **Sharma, Shivdutt\***, "Nearly linear time isomorphism algorithms for some nonabelian group classes", in the International Computer Science Symposium in Russia (CSR-2019), Novosibirsk, RU, July 1-5, 2019

**Das, Bireswar**; **Sharma, Shivdutt\*** and **Vaidyanathan, P. R.\***, "Succinct representations of finite groups", in the International Symposium on Fundamentals of Computation Theory (FCT 2019), Copenhagen, DK, Aug 12-14, 2019

**Dayal, Pratyush** and **Misra, Neeldhara**, "Deleting to structured trees", in the 25th International Computing and Combinatorics Conference (COCOON 2019), Xian, CN, July 29-31, 2019

Dey, Palash; **Misra, Neeldhara**; Nath, Swaprava and Shakya, Garima, "A parameterized perspective on protecting elections", in the Twenty-Eighth International Joint Conference on Artificial Intelligence (IJCAI-19), Macao, CN, Aug 10-16, 2019

**Dutta, Ritik\***; **Gohil, Varun\*** and **Jain, Atishay\***, "Effect of feature hashing on fair classification", in the CoDS COMAD 2020: Proceedings of the 7th ACM IKDD CoDS and 25th COMAD, Hyderabad, IN,

Jan 5-7, 2020

**Gohil, Varun\***; **Singh, Shreyas\*** and Awasthi, Manu, "FAB: framework for analyzing benchmarks", in the 10th ACM/SPEC International Conference on Performance Engineering (ICPE 2019), Mumbai, IN, Apr 7-11, 2019

**Harilal, Nidhin\***; **Shah, Rushil\***; **Sharma, Saumitra\*** and **Bhutani, Vedanta\***, "CARO: an empathetic health conversational chatbot for people with major depression", in the CoDS COMAD 2020: Proceedings of the 7th ACM IKDD CoDS and 25th COMAD, Hyderabad, IN, Jan 5-7, 2020

Hazra, Rima; **Singh, Mayank**; Goyal, Pawan; Adhikari, Bibhas and Mukherjee, Animesh, "The rise and rise of interdisciplinary research: Understanding the interaction dynamics of three major fields - Physics, Mathematics and Computer Science", in the 21st International Conference on Asia-Pacific Digital Libraries, (ICADL 2019), Kuala Lumpur, MY, Nov 4-7, 2019

**Jain, Naman\*** and **Singh, Mayank**, "The evolving ecosystem of predatory journals: a case study in Indian perspective", in the 21st International Conference on Asia-Pacific Digital Libraries, (ICADL 2019), Kuala Lumpur, MY, Nov 4-7, 2019

Jia, Yiling; **Batra, Nipun** and Wang, Hongning, "Active collaborative sensing for energy breakdown", in the Proceedings of the 28th ACM International Conference on Information and Knowledge Management - CIKM '19, Beijing, CN, Nov 03-07, 2019

Jia, Yiling; **Batra, Nipun**; Wang, Hongning and Whitehouse, Kamin, "A tree-structured neural network model for household energy breakdown", in the Web Conference (WWW conference), San Francisco, US, May 13-17, 2019

**Kanojia, Gagan\***; **Kumawat, Sudhakar\*** and **Raman, Shanmuganathan**, "Attentive spatio-temporal representation learning for diving classification", in the IEEE Conference on Computer Vision and Pattern Recognition (CVPR-2019) - 5th International Workshop on Computer Vision in Sports (CVsports), Long Beach, US, June 16-20, 2019

**Kanojia, Gagan\***; **Kumawat, Sudhakar\*** and **Raman, Shanmuganathan**, "Exploring temporal differences in 3D convolutional neural networks", in the 7th National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG 2019), KLE Technological University, Hubli, IN, Dec 22-24, 2019

**Kaur, Chamanvir\*** and **Misra, Neeldhara**, "On the parameterized complexity of spanning trees with small vertex covers", in the Conference on Algorithms and Discrete Applied Mathematics ((CALDAM - 2020), Hyderabad, IN, Feb 13-15, 2020

**Kayal, Pratik\***; **Singh, Mayank** and Goyal, Pawan, "Weakly-supervised deep learning for domain invariant sentiment classification", in the CoDS COMAD 2020: Proceedings of the 7th ACM IKDD CoDS and 25th COMAD, Hyderabad, IN, Jan 5-7, 2020

**Kukunuri, Rithwik\***; **Batra, Nipun** and Wang, Hongning, "Lessons and insights from super-resolution of energy data", in the CoDS COMAD 2020: Proceedings of the 7th ACM IKDD CoDS and 25th COMAD, Hyderabad, IN, Jan 5-7, 2020

**Kumar, Karan\*** and **Batra, Nipun**, "Solar energy forecasting using machine learning", in the CoDS COMAD 2020: Proceedings of the 7th ACM IKDD CoDS and 25th COMAD, Hyderabad, IN, Jan 5-7, 2020

**Kumawat, Sudhakar\*** and **Raman, Shanmuganathan**, "Local phase U-Net for fundus image segmentation", in the 44th International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Brighton, UK, May 12-17, 2019

**Kumawat, Sudhakar\*** and **Raman, Shanmuganathan**, "LP-3DCNN: unveiling local phase in 3D convolutional neural networks", in the IEEE Conference on Computer Vision and Pattern



Recognition (CVPR), Long Beach, US, June 16-20, 2019

**Kumawat, Sudhakar\***; **Verma, Manisha##** and **Raman, Shanmuganathan**, "LBVCNN: Local binary volume convolutional neural network for facial expression recognition from image sequences", in the IEEE Conference on Computer Vision and Pattern Recognition (CVPR) - 9th International Workshop on Analysis and Modeling of Faces and Gestures (AMFG), Long Beach, US, June 16-20, 2019

**Mastan, Indra Deep\*** and **Raman, Shanmuganathan**, "DCIL: Deep Contextual Internal Learning for image restoration and image retargeting", in the IEEE Winter Conference on Applications of Computer Vision (WACV 2020), Colorado, US, Mar 2-5, 2020

**Mastan, Indra Deep\*** and **Raman, Shanmuganathan**, "Multi-level encoder-decoder architectures for image restoration", in the New Trends in Image Restoration and Enhancement workshop and challenges on image and video restoration and enhancement in conjunction with CVPR 2019, Long Beach, US, June 16-20, 2019

**Misra, Neeldhara** and **Rathi, Piyush\***, "The parameterized complexity of dominating set and friends revisited for structured graphs", in the International Computer Science Symposium in Russia (CSR-2019), Novosibirsk, RU, July 1-5, 2019

**Misra, Neeldhara**, "On the parameterized complexity of party nominations", in the 6th International Conference on Algorithmic Decision Theory (ADT 2019), Durham, US, Oct 25-27, 2019

**Misra, Neeldhara**; **Panolan, Fahad** and **Saurabh, Saket**, "On the parameterized complexity of edge-linked paths", in the International Computer Science Symposium in Russia (CSR-2019), Novosibirsk, RU, July 1-5, 2019

**Narayanan, S. Deepak\***; **Agnihotri, Apoorv\*** and **Batra, Nipun**, "Active learning for air quality station location recommendation", in the CoDS COMAD 2020: Proceedings of the 7th ACM IKDD CoDS and 25th COMAD, Hyderabad, IN, Jan 5-7, 2020

**Pamnani, Arik\***; **Goel, Rajat\***; **Choudhari, Jayesh\*** and **Singh, Mayank\***, "IIT Gandhinagar at SemEval-2019 Task 3: contextual emotion detection using deep learning", in the 13th International Workshop on Semantic Evaluation (SemEval-2019), Minneapolis, US, June 6-7, 2019

**Pandey, Pankaj\***; **Swarnkar, Raunak\***; **Kakaria, Shobhit\*** and **Miyapuram, Krishna Prasad**, "Understanding consumer preferences for movie trailers from EEG using machine learning", in the 6th Annual Conference of Cognitive Science, BITS Pilani K. K. Birla Goa, IN, Dec 10-12, 2019

**Paul, Souradyuti** and **Shrivastava, Ananya\***, "Efficient fair multiparty protocols using Blockchain and trusted hardware", in International Conference on Cryptology and Information Security in Latin America (LATINCRYPT 2019), Santiago, Chile, USA, Oct 2-4, 2019

**Ravi, Akhilesh\***; **Yadav, Amit Kumar Singh\***; **Chauhan, Jainish\***; **Dholakia, Jatin\*** and **Jain, Naman\***, "SentEmoji: a dataset to generate empathising conversations", in the CoDS COMAD 2020: Proceedings of the 7th ACM IKDD CoDS and 25th COMAD, Hyderabad, IN, Jan 5-7, 2020

**Roy, Souvik\***; **Batra, Nipun** and **Gupta, Pawan**, "Estimation of PM2.5 using satellite and meteorological data", in the CoDS COMAD 2020: Proceedings of the 7th ACM IKDD CoDS and 25th COMAD, Hyderabad, IN, Jan 5-7, 2020

**Singh, Davinder\***; **Jain, Naman\***; **Jain, Pranjali\***; **Kayal, Pratik\***; **Kumawat, Sudhakar\*** and **Batra, Nipun**, "PlantDoc: a dataset for visual plant disease detection", in the CoDS COMAD 2020: Proceedings of the 7th ACM IKDD CoDS and 25th COMAD, Hyderabad, IN, Jan 5-7, 2020

**Singh, Mayank\***; **Pal, Arindam\***; **Dey, Lipika** and **Mukherjee, Animesh**, "Innovation and revenue:

deep diving into the temporal rank-shifts of fortune 500 companies", in the CoDS COMAD 2020: Proceedings of the 7th ACM IKDD CoDS and 25th COMAD, Hyderabad, IN, Jan 5-7, 2020

**Singh, Mayank\***; **Sarkar, Rajdeep\***; **Vyas, Atharva\***; **Goyal, Pawan\***; **Mukherjee, Animesh** and **Chakrabarti, Soumen**, "Automated early leaderboard generation from comparative tables", in the 41st European Conference on Information Retrieval (ECIR 2019), Cologne, DE, Apr 14-18, 2019

**Singh, Shubham\***; **Miyapuram, Krishna P.** and **Raman, Shanmuganathan**, "DeepPFCN: deep parallel feature consensus network for person re-identification", in the 7th National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIG 2019), KLE Technological University, Hubli, IN, Dec 22-24, 2019

**Utsav, Jethva\***; **Kabaria, Dhairat\***; **Vajpeyi, Ribhu\***; **Mina, Mohit\*** and **Srivastava, Vivek\***, "Stance detection in Hindi-English code-mixed data", in the CoDS COMAD 2020: Proceedings of the 7th ACM IKDD CoDS and 25th COMAD, Hyderabad, IN, Jan 5-7, 2020

**Yadav, Anshuman\***; **Garg, Aditya\***; **Aglawe, Anup\***; **Agarwal, Ayush\*** and **Srivastava, Vivek\***, "Understanding the political inclination of WhatsApp chats", in the CoDS COMAD 2020: Proceedings of the 7th ACM IKDD CoDS and 25th COMAD, Hyderabad, IN, Jan 5-7, 2020

**Yale, Andrew\***; **Dash, Saloni\***; **Dutta, Ritik\***; **Guyon, Isabelle\***; **Pavao, Adrien** and **Bennett, Kristin P.**, "Privacy preserving synthetic health data", in the European Symposium on Artificial Neural Networks, Computational Intelligence and Machine Learning (ESANN 2019), Bruges, BE, Apr 24-26, 2019

## POSTERS PRESENTED

**Gangwal, Utkarsh\***; **Kamboj, Deepak\***; **Singh, Mayank** and **Bhatia, Udit**, "Cyber-based interdependent infrastructure network resilience analysis", in the Society of Risk Analysis (SRA) - 2019 Annual Meeting: A network of networks approach for cyber-based contingency analysis of interdependent infrastructure networks under uncertainty, Arlington, VA, US, Dec, 2019 (Best Poster Award)

## DESIGN

### PAPERS PRESENTED

#### AT CONFERENCE

**Kristi, Franklin#**, "Frugal innovation by grassroot innovators and why it is different from conventional innovation process", in the 3rd LeNS World Distributed Conference, Srihti Institute of Art, Design and Technology, Bangalore, IN, Apr 3-5, 2019

**Priolkar, Neha\*** and **Kristi, Franklin#**, "Designing furniture based on student's lifestyle and merging with a sustainable campus", in the 3rd LeNS World Distributed Conference, Srihti Institute of Art, Design and Technology, Bangalore, IN, Apr 3-5, 2019

## EARTH SCIENCES

### BOOK CHAPTER

**Ahirvar, Bhairu Prasad\***; **Chaudhry, Shivaji\***; **Kumar, Manish** and **Das, Pallavi**, "Climate change impact on forest and agrobiodiversity: a special reference to Amarkantak area, Madhya Pradesh", in Contemporary Environmental Issues and Challenges in Era of Climate Change, DOI: 10.1007/978-981-32-9595-7\_3, Singapore: Springer Nature, pp 65-76, Nov 2019, ISBN: 9789813295940.

**Das, Nilotpal\***; **Mahanta, Chandan** and **Kumar, Manish**, "Water quality under the changing climatic condition: a review of the Indian scenario", in Emerging issues in the water environment during anthropocene, DOI: 10.1007/978-981-32-9771-5\_3,

Springer, pp 31-61, Aug 2019, ISBN: 9789813297715.

**Das, Pallavi** and **Kumar, Manish**, "Assessment of water quality using multivariate analysis—a case study on the Brahmaputra River, Assam, India", in Emerging issues in the water environment during anthropocene, DOI: 10.1007/978-981-32-9771-5\_10, Springer, pp 179-194, Aug 2019, ISBN: 9789813297715.

**Das, Pallavi** and **Kumar, Manish**, "Water scarcity and land degradation nexus in the anthropocene: reformations for advanced water management as per the sustainable development goals", in Emerging issues in the water environment during anthropocene, DOI: 10.1007/978-981-32-9771-5\_17, Springer, pp 317-336, Aug 2019, ISBN: 9789813297715.

**Kumari, Omi\*** and **Kumar, Manish**, "Water governance: a pragmatic debate of 21st century; an Indian perspective", in Emerging issues in the water environment during anthropocene, DOI: 10.1007/978-981-32-9771-5\_19, Springer, pp 355-365, Aug 2019, ISBN: 9789813297715.

**Ram, Bhagwana\***; **Sharma, Divya** and **Kumar, Manish**, "Two sides of a coin: targets and by-products of water and wastewater treatment", in Emerging issues in the water environment during anthropocene, DOI: 10.1007/978-981-32-9771-5\_2, Springer, pp 15-29, Aug 2019, ISBN: 9789813297715.

**Singh, Ashwin\***; **Patel, Arbind Kumar#** and **Kumar, Manish**, "Mitigating the risk of arsenic and fluoride contamination of groundwater through a multi-model framework of statistical assessment and natural remediation techniques", in Emerging issues in the water environment during anthropocene, DOI: 10.1007/978-981-32-9771-5\_15, Springer, pp 285-300, Aug 2019, ISBN: 9789813297715.

**Sinha, Rajiv\***; **Jain, Vikrant** and **Kumar, Gaurav**, "Geomorphic changes and sediment dynamics in rivers: causes and consequences", in Water futures of India: status of science and technology, Bangalore: IISc Press, pp 401-450, 2019, ISBN: 9788193948200.

**Sulfikar, Sovannlaksmy, Sorn\***; **Honda, Ryo\***; **Chaminda, Tushara** and **Kumar, Manish**, "A review on Antibiotic Resistance Gene (ARG) occurrence and detection in WWTP in Ishikawa, Japan and Colombo, Sri Lanka", in Emerging issues in the water environment during anthropocene, DOI: 10.1007/978-981-32-9771-5\_1, Springer, pp 1-14, Aug 2019, ISBN: 9789813297715.

### BOOKS EDITED

**Kumar, Manish**; **Munoz-Arriola, Francisco\***; **Furumai, Hiroaki** and **Chaminda, Tushara** (Eds.), "Resilience, response, and risk in water systems: shifting management and natural forcings paradigms", DOI: 10.1007/978-981-15-4668-6, Singapore: Springer Nature, 2020, ISBN: 9789811546679.

**Kumar, Manish**; **Snow, Daniel D.** and **Honda, Ryo**, ed., Emerging issues in the water environment during anthropocene, Singapore: Springer, 2019, ISBN: 9789813297715.

**Kumar, Manish**; **Snow, Daniel D.**; **Honda, Ryo** and **Mukherjee, Santanu#** (Eds.), "Contaminants in drinking and wastewater sources: challenges and reigning technologies", DOI: 10.1007/978-981-15-4599-3, Singapore: Springer Nature, 2020, ISBN: 9789811545986.

### E-PRINT ARCHIVES

**Asoka, Akarsh\*** and **Mishra, Vimal**, "Groundwater pumping to increase food production causes persistent groundwater drought in India", arXiv, Cornell University Library, DOI: arXiv:1908.00255, Aug 2019

### JOURNAL ARTICLES

**Bard, P.-Y.**; **Bora, Sanjay Singh\***; **Hollender, F.**;

Laurendeau, A. and Traversa, P., "Are the standard VS-Kappa host-to-target adjustments the only way to get consistent hard-rock ground motion prediction?", *Pure and Applied Geophysics*, DOI: 10.1007/s00024-019-02173-9, vol 177, no 5, pp 2049-2068, Apr 2019

Deka, Bhaskar Jyoti; Guo, Jiaxin; Jeong, Sanghyun; **Kumar, Manish** and An, Alicia Kyoungjin, "Emerging investigator series: control of membrane fouling by dissolved algal organic matter using pre-oxidation with coagulation as seawater pretreatment", *Environmental Science: Water Research & Technology*, DOI: 10.1039/C9EW00955H, vol 6, no 4, pp 935-944, Jan 2020

Devi, Upasana; **Taki, Kaling\***; **Shukla, Tanya\***; Sarma, Kali P.; Hoque, Raza R. and **Kumar, Manish**, "Microzonation, ecological risk and attributes of metals in highway road dust traversing through the Kaziranga National Park, Northeast India: implication for confining metal pollution in the national forest", *Environmental Geochemistry and Health*, DOI: 10.1007/s10653-018-0219-4, vol 41, no 3, pp 1387-1403, June 2019

**Dey, Saptarshi#**; **Kaushal, Rahul Kumar\***; **Sonam\*** and **Jain, Vikrant**, "Spatiotemporal variability of Neotectonic activity along the Southern Himalayan front: a geomorphic perspective", *Journal of Geodynamics*, DOI: 10.1016/j.jog.2018.09.003, vol 129, pp 237-246, Sep 2019

**Goswami, Ritusmita#**; **Kumar, Manish**; Biyani, Nivedita and Shea, Patrick J., "Arsenic exposure and perception of health risk due to groundwater contamination in Majuli (river island), Assam, India", *Environmental Geochemistry and Health*, DOI: 10.1007/s10653-019-00373-9, July 2019

**Guha, Shantamoy\*** and **Jain, Vikrant**, "Role of inherent geological and climatic characteristics on landscape variability in the tectonically passive Western Ghat, India", *Geomorphology*, DOI: 10.1016/j.geomorph.2019.106840, vol 350, Feb 2020

**Jain, Vikrant**; S., **Sonam\***; **Singh, Ajit#**; Sinha, Rajiv and Tandon, Sampat, "Evolution of modern river systems: an assessment of 'landscape memory' in Indian river systems", *Episodes*, DOI: 10.18814/epiugs/2020/020035, vol 43, no 1, pp 535-551, Mar 2020

Kaushal, Rahul K.; Sarkar, Ankita; Mishra, Kanchan; Sinha, Rajiv; Nepal, Santosh and **Jain, Vikrant**, "Spatio-temporal variability in stream power distribution in the upper Kosi river basin, central Himalaya: controls and geomorphic implications", *Geomorphology*, DOI: 10.1016/j.geomorph.2019.106888, vol 350, Oct 2019

**Kumar, Manish**; Chaminda, Tushara; Honda, Ryo and Furumai, Hiroaki, "Vulnerability of urban waters to emerging contaminants in India and Sri Lanka: resilience framework and strategy", *APN Science Bulletin*, DOI: 10.30852/sb.2019799, vol 9, no 1, Nov 2019

**Kumar, Manish**; Gogoi, Anindita and **Mukherjee, Santanu#**, "Metal removal, partitioning and phase distributions in the wastewater and sludge: performance evaluation of conventional, upflow anaerobic sludge blanket and downflow hanging sponge treatment systems", *Journal of Cleaner Production*, DOI: 10.1016/j.jclepro.2019.119426, Nov 2019

**Kumar, Manish**; **Goswami, Ritusmita#**; Awasthi, Neeraj and Das, Reshmi, "Provenance and fate of trace and rare earth elements in the sediment-aquifers systems of Majuli River Island, India", *Chemosphere*, DOI: 10.1016/j.chemosphere.2019.124477, vol 237, Dec 2019

**Kumar, Manish**; **Goswami, Ritusmita#**; **Patel, Arbind Kumar#**; **Srivastava, Medhavi#** and Das, Nilotpal, "Scenario, perspectives and mechanism of arsenic and fluoride co-occurrence in the groundwater: a review", *Chemosphere*, DOI: 10.1016/j.chemosphere.2020.126126, vol 249, Feb 2020

**Kumar, Manish**; **Ram, Bhagwana\***; Honda, Ryo; Poopipattana, Chomphunut; Canh, Vu Duc; Chaminda, Tushara and Furumai, Hiroaki, "Concurrence of antibiotic resistant bacteria (ARB), viruses, pharmaceuticals and personal care products (PPCPs) in ambient waters of Guwahati, India: Urban vulnerability and resilience perspective", *Science of The Total Environment*, DOI: 10.1016/j.scitotenv.2019.133640, vol 693, Nov 2019

**Kumar, Manish**; **Ram, Bhagwana\***; Sewwandi, Himaya; Sulfikar; Honda, Ryo and Chaminda, Tushara, "Treatment enhances the prevalence of antibiotic-resistant bacteria and antibiotic resistance genes in the wastewater of Sri Lanka, and India", *Environmental Research*, DOI: 10.1016/j.envres.2020.109179, vol 183, Jan 2020

**Kumar, Manish**; Snow, Daniel D.; Li, Yusong and Shea, Patrick J., "Perchlorate behavior in the context of black carbon and metal cogeneration following fireworks emission at Oak Lake, Lincoln, Nebraska, USA", *Environmental Pollution*, DOI: 10.1016/j.envpol.2019.07.038, vol 253, pp 930-938, Oct 2019

**Mahto, Shanti Shwarup\*** and **Mishra, Vimal**, "Does ERA 5 outperform other reanalysis products for hydrologic applications in India?", *Journal of Geophysical Research: Atmospheres*, DOI: 10.1029/2019JD031155, Aug 2019

Mazumder, Payal; Sharma, Subhash Kumar; **Taki, Kaling\***; Kalamdhad, Ajay S. and **Kumar, Manish**, "Microbes involved in arsenic mobilization and respiration: a review on isolation, identification, isolates and implications", *Environmental Geochemistry and Health*, DOI: 10.1007/s10653-020-00549-8, Mar 2020

Mishra, Kanchan; Sinha, Rajiv; **Jain, Vikrant**; Nepal, Santosh and Uddin, Kabir, "Towards the assessment of sediment connectivity in a large Himalayan river basin", *Science of The Total Environment*, DOI: 10.1016/j.scitotenv.2019.01.118, vol 661, pp 251-265, Apr 2019

Nandargi, Shobha Shivaram and **Mahto, Shanti Shwarup\***, "Frequency and intensity of tropical disturbances over the Indian region and its neighboring seas with associated rainfall during the monsoon season: a perspective", *Engineering Reports*, DOI: 10.1002/eng2.12069, Dec 2019

**Patel, Arbind Kumar#**; Das, Nilotpal; **Goswami, Ritusmita#** and **Kumar, Manish**, "Arsenic mobility and potential co-leaching of fluoride from the sediments of three tributaries of the upper Brahmaputra floodplain, Lakhimpur, Assam, India", *Journal of Geochemical Exploration*, DOI: 10.1016/j.gexplo.2019.04.004, vol 203, pp 45-58, Aug 2019

**Ram, Bhagwana\*** and **Kumar, Manish**, "Correlation appraisal of antibiotic resistance with fecal, metal and microplastic contamination in a tropical Indian river, lakes and sewage", *npj Clean Water*, DOI: 10.1038/s41545-020-0050-1, vol 3, no 1, Feb 2020

**Singh, Ajit#** and Sinha, Rajiv, "Fluvial response to climate change inferred from sediment cores from the Haggar-Hakra paleochannel in NW Indo-Gangetic plains", *Palaeogeography, Palaeoclimatology, Palaeoecology*, DOI: 10.1016/j.palaeo.2019.109247, vol 532, Oct 2019

**Singh, Ashwin\***; **Patel, Arbind Kumar#**; Deka, Jyoti Prakash; Das, Aparna; Kumar, Abhay and **Kumar, Manish**, "Prediction of arsenic vulnerable zones in the groundwater environment of a rapidly urbanizing setup, Guwahati, India", *Geochemistry*, DOI: 10.1016/j.chemer.2019.125590, Nov 2019

**Singh, Ashwin\***; **Patel, Arbind Kumar#**; Ramanathan, Algappan and **Kumar, Manish**, "Climatic influences on arsenic health risk in the metamorphic precambrian deposits of Sri Lanka: a re-analysis-based critical review", *Journal of Climate Change*, DOI: 10.3233/JCC200003, vol 6, no 1, pp 15-24, Feb 2020

**Singh, Naman Deep\***; Chinni, Venkatesh and Singh, Sunil Kumar, "Dissolved aluminium cycling in

the northern, equatorial and subtropical gyre region of the Indian Ocean", *Geochimica et Cosmochimica Acta*, DOI: 10.1016/j.gca.2019.09.028, vol 268, pp 160-185, Jan 2020

Soni, Vikram; Shekhar, Shashank and **Jain, Vikrant**, "Need for a clear techno-legal definition of blue gold: the river floodplains in India", *Current Science*, DOI: 10.18520/cs/v117/i12/1958-1961, vol 117, no 12, pp 1958-1961, Dec 2019

**Taki, Kaling\***; Gogoi, Anindita; Mazumder, Payal; Bhattacharya, Satya Sunder and **Kumar, Manish**, "Efficacy of vermitechnology integration with Upflow Anaerobic Sludge Blanket (UASB) and activated sludge for metal stabilization: a compliance study on fractionation and biosorption", *Journal of Environmental Management*, DOI: 10.1016/j.jenvman.2019.01.006, vol 236, pp 603-612, Apr 2019

Wasson, Robert James; **Jain, Vikrant**; Katuri, Ajay; Lahiri, Siddhartha; Parkash, Surya; Singhvi, Ashok Kumar; Varma, Navarun; Bansal, Priya and Joon, Chuah Chong, "Riverine flood hazard: Part A. Types, processes and causative factors", *Proceedings of the Indian National Science Academy*, DOI: 10.16943/ptinsa/2018/49502, vol 85, no 1, pp 43-64, Apr 2019

## PAPERS PRESENTED

### AT CONFERENCE

**Pandey, Abhishek K.\***; **Mohapatra, Pranab K.** and **Jain, Vikrant**, "Studying the channel confluence hydraulics using eddy viscosity models and reynolds stress model", in the 7th International Congress on Computational Mechanics and Simulation (ICCMS 2019), IIT Mandi, IN, Dec 11-13, 2019

## ELECTRICAL ENGINEERING

### BOOK CHAPTER

Godiyal, Anoop Kant; **Verma, Vinay\*** Verma; **Khanna, Nitin** and Joshi, Deepak, "Force myography and its application to human locomotion", in *Biomedical Signal Processing*, DOI: 10.1007/978-981-13-9097-5\_3, Singapore: Springer Nature, pp 49-70, Nov 2019, ISBN: 9789811390968.

**Patwardhan, Apoorv\*** P.; **Patidar, Rohan\*** and **George, Nithin V.**, "Dynamic nonlinear active noise control: a multi-objective evolutionary computing approach", in *Nature-inspired methods for metaheuristics optimization*, DOI: 10.1007/978-3-030-26458-1\_23, Switzerland: Springer Nature, pp 421-439, 2020, ISBN: 9783030264574.

Welch, Karla Conn; **Lahiri, Uttama**; Warren, Zachary E. and Sarkar, Nilanjana, "A system to measure physiological response during social interaction in VR for children with ASD", in *Computational Models for Biomedical Reasoning and Problem Solving*, DOI: 10.4018/978-1-5225-7467-5.ch001, IGI Global, pp 1-33, Apr 2019, ISBN: 9781522574675, 9781522574682.

## BOOKS

**Lahiri, Uttama**, *Computational view of autism: using virtual reality technologies in autism intervention*, Switzerland: Springer Nature, 2020, ISBN: 9783030402365.

## E-PRINT ARCHIVES

**Aketi, Sai Aparna\***; **Gupta, Smriti\***; Cheng, Huimei; **Mekie, Joycee** and Beeler, Peter A. , "SERAD: Soft Error Resilient Asynchronous Design using a bundled data protocol", arXiv, Cornell University Library, DOI: arXiv:2001.04039v1, Jan 2020

**Biswas, Ayon\***; McIver, Jess and Mahabal, Ashish, "New methods to assess and improve LIGO



detector duty cycle", arXiv, Cornell University Library, DOI: arXiv:1910.12143, Oct 2019

**Joshi, Sharad\***; Saxena, Suraj and **Khanna, Nitin**, "Source printer identification from document images acquired using smartphone", arXiv, Cornell University Library, DOI: arXiv:2003.12602, Mar 2020

**Kadam, Sujay D.\***, "An I + PI controller structure for integrating processes with dead-time: application to depth control of an autonomous underwater vehicle", arXiv, Cornell University Library, DOI: arXiv:1908.09250, Aug 2019

**Kanojia, Gagan\*** and **Raman, Shanmuganathan**, "Simultaneous detection and removal of dynamic objects in multi-view images", arXiv, Cornell University Library, DOI: arXiv:1912.05591, Dec 2019

**Kanojia, Gagan\***; **Kumawat, Sudhakar\*** and **Raman, Shanmuganathan**, "Exploring temporal differences in 3D convolutional neural networks", arXiv, Cornell University Library, DOI: arXiv:1909.03309, Sep 2019

**Mastan, Indra Deep\*** and **Raman, Shanmuganathan**, "DCIL: Deep Contextual Internal Learning for image restoration and image retargeting", arXiv, Cornell University Library, DOI: arXiv:1912.04229, Dec 2019

**Mastan, Indra Deep\*** and **Raman, Shanmuganathan**, "Multi-level encoder-decoder architectures for image restoration", arXiv, Cornell University Library, DOI: arXiv:1905.00322, May 2019

**Singh, Shubham Kumar\***; **Miyapuram, Krishna P.** and **Raman, Shanmuganathan**, "DeepPFCN: deep parallel feature consensus network for person re-identification", arXiv, Cornell University Library, DOI: arXiv:1911.07776, Nov 2019

**Verma, Vinay\***; **Singh, Deepak\*** and **Khanna, Nitin**, "Block-level double JPEG compression detection for image forgery localization", arXiv, Cornell University Library, DOI: arXiv:2003.09393, Mar 2020

## JOURNAL ARTICLES

**Banerjee, Hritwick\***; Roy, Bihas; Chadhury, Kaustav; **Srinivasan, Babji**; Chakraborty, Suman and Ren, Hongliang, "Frequency-induced morphology alterations in micro confined biological cells", Medical & Biological Engineering & Computing, DOI: 10.1007/s11517-018-1908-y, vol 57, no 4, pp 819-835, Apr 2019

**Batchu, Rajasekhar\*** Pindoriya, Naran; Tushar, Wayes and Yuen, Chau, "Collaborative energy management for a residential community: a non-cooperative and evolutionary approach", IEEE Transactions on Emerging Topics in Computational Intelligence, DOI: 10.1109/TETCI.2018.2865223, vol 3, no 3, pp 177-192, June 2019

**Bharti, Pramod Kumar\***; **Surana, Neelam\*** and **Mekie, Joycee**, "Hetro8T: power and area efficient architecture for heterogeneous 8T SRAM for H.264 video decoder", IET Computers & Digital Techniques, DOI: 10.1049/iet-cdt.20190019, vol 13, no 6, pp 505-513, Nov 2019

**Bhattacharjee, Sankha Subhra\*** and **George, Nithin V.**, "Nonlinear system identification using exact and approximate improved adaptive exponential functional link networks", IEEE Transactions on Circuits and Systems II: Express Briefs, DOI: 10.1109/TCSII.2020.2983128, Mar 2020

**Bhoir, Mandar\*** S.; Chiarella, Thomas; Ragnarsson, Lars Ake; Mitard, Jerome; Terzeiva, Valentina; Horiguchi, Naoto and **Mohapatra, Nihar R.**, "Analog performance and its variability in sub-10 nm fin-width FinFETs: a detailed analysis", IEEE Journal of the Electron Devices Society, DOI: 10.1109/JEDS.20192934575, vol 7, pp 1217-1224, Dec 2019

**Bhoir, Mandar\*** S.; **Kaushal, Kumari Neeraj\***; **Panda, Soumya\* R.\***; **Singh, Amit\*** K.; Jatana, H. S. and **Mohapatra, Nihar R.**, "Source underlap—a novel technique to improve safe operating area and output-conductance in LDMOS transistors",

IEEE Transactions on Electron Devices, DOI: 10.1109/TED.20192942372, vol 66, no 11, pp 4823-4828, Nov 2019

**Boomeraja, Balaganesh\*** and **Kanagaraj, Ragavan**, "A novel hybrid flux machine with transverse flux stator and longitudinal flux rotor: design and comparative analysis", Electrical Engineering, DOI: 10.1007/s00202-020-00967-y, Mar 2020

**Das, Laya\***; **Garg, Dinesh** and **Srinivasan, Babji**, "Neuralcompression: a machine learning approach to compress high frequency measurements in smart grid", Applied Energy, DOI: 10.1016/j.apenergy.2019113966, vol 257, Jan 2020

**Dash, Adyasha\*** and **Lahiri, Uttama**, "Design of virtual reality-enabled surface electromyogram-triggered grip exercise platform", IEEE Transactions on Neural Systems and Rehabilitation Engineering, DOI: 10.1109/TNSRE.20192959449, vol 28, no 2, pp 444-452, Feb 2020

**Dash, Adyasha\***; Dutta, Anirban and **Lahiri, Uttama**, "Quantification of grip strength with complexity analysis of surface electromyogram for hemiplegic post-stroke patients", NeuroRehabilitation, DOI: 10.3233/NRE-192734, vol 45, no 1, pp 45-46, Sep 2019

**Dawar, Rohit\***; Samit Barai; **Kumar, Pardeep\***; **Srinivasan, Babji** and Mohapatra, Nihar, "Random forest based robust classification for lithographic hotspot detection", Journal of Micro/Nanolithography, MEMS, and MOEMS, DOI: 10.1117/1.JMM.18.2.023501, vol 18, no 2, May 2019

**Deb, Trisrota\***; **Ray, Dwaipayan\*** and **George, Nithin V.**, "Design of nonlinear filters using affine projection algorithm based exact and approximate adaptive exponential functional link networks", IEEE Transactions on Circuits and Systems II: Express Briefs, DOI: 10.1109/TCSII.20192962916, Dec 2019

**Donda, Krupali\*** D. and **Hegde, Ravi S.**, "Optimal design of beam-deflectors using extended unit-cell metagratings", Progress In Electromagnetics Research, DOI: 10.2528/PIERM18092801, vol 77, pp 83-92, 2019

Dutta, Sangya; Chavan, Tanmay; **Mohapatra, Nihar R.** and Ganguly, Udayan, "Electrical tunability of Partially Depleted Silicon on Insulator (PD-SOI) Neuron", Solid-State Electronics, DOI: 10.1016/j.sse.2019107623, vol 160, Oct 2019

**Gandhi, Ravi V.\*** and Adhyaru, Dipak M., "Takagi-Sugeno fuzzy regulator design for nonlinear and unstable systems using negative absolute eigenvalue approach", IEEE/CAA Journal of Automatica Sinica, DOI: 10.1109/JAS.20191911444, Mar 2020

**Ganeriwala, Mohit D.\***; Ruiz, Francisco G.; Marin, Enrique G. and **Mohapatra, Nihar R.**, "A compact model for III-V nanowire electrostatics including band non-parabolicity", Journal of Computational Electronics, DOI: 10.1007/s10825-019-01389-1, vol 18, no 4, pp 1229-1235, Aug 2019

**Ghosh, Piue\***; **Kar, Ashish\***; **Khandelwal, Shikha\***; **Vyas, Divya\***; **Mir, Ab Qayoom\***; **Chakraborty, Arup Lal**; **Hegde, Ravi S.**; **Sharma, Sudhanshu**; **Dutta, Arnab** and **Khatua, Saumyakanti**, "Plasmonic CoO-Decorated Au Nanorods for Photoelectrocatalytic Water Oxidation", ACS Applied Nano Materials, DOI: 10.1021/acsanm.9b01258, Aug 2019

**Hegde, Ravi S.**, "Accelerating optics design optimizations with deep learning", Optical Engineering, DOI: 10.1117/1.OE.58.6.065103, vol 58, no 6, June 2019

**Hegde, Ravi S.**, "Deep learning: a new tool for photonic nanostructure design", Nanoscale Advances, DOI: 10.1039/C9NA00656G, vol 2, no 3, pp 1007-1023, Feb 2020

**Hegde, Ravi S.**, "Photonics inverse design: pairing deep neural networks with evolutionary algorithms", IEEE Journal of Selected Topics in Quantum Electronics, DOI: 10.1109/JSTQE.20192933796, vol 26, no 1, pp 1-8, Jan 2020

**Jain, Hardik\***; **Joshi, Sharad\***; **Gupta, Gaurav\*** and

**Khanna, Nitin**, "Passive classification of source printer using text-line-level geometric distortion signatures from scanned images of printed documents", Multimedia Tools and Applications, DOI: 10.1007/s11042-019-08508-x, vol 79, no 11-12, pp 7377-7400, Dec 2019

Jain, Sonal; Choksi, Kushan and Pindoriya, Naran, "Rule-based classification of energy theft and anomalies in consumers load demand profile", IET Smart Grid, DOI: 10.1049/iet-stg.20190081, July 2019

**Jha, Chandan Kumar\***; **Agarwal, Shivang\***; **Chakraborty, Arup Lal** and Shirpurkar, Chinmay, "An FBG-based sensing glove to measure dynamic finger flexure with an angular resolution of 0.1° up to speeds of 80°/s", Journal of Lightwave Technology, DOI: 10.1109/JLT.20192919496, June 2019

**Jha, Chandan Kumar\***; **Ved, Sneha\* N.**; **Anand, Ishant\*** and **Mekie, Joycee**, "Energy and error analysis framework for approximate computing in mobile applications", IEEE Transactions on Circuits and Systems II: Express Briefs, DOI: 10.1109/TCSII.20192910137, vol 67, no 2, pp 385-389, May 2019

**Joshi, Amit\***; **Das, Laya\***; Natarajan, Balasubramaniam and **Srinivasan, Babji**, "Multi-class diagnosis of Neurodegenerative diseases: a Neuroimaging machine learning based approach", IEEE Transactions on Industrial Informatics, DOI: 10.1109/TII.2018.2866302, vol 15, no 4, pp 2233-2243, Apr 2019

oshi, Sharad and **Khanna, Nitin**, "Source printer classification using printer specific local texture descriptor", IEEE Transactions on Information Forensics and Security (TIFS), DOI: 10.1109/TIFS.20192919869, vol 15, pp 160-171, May 2019

**Joshi, Sharad\***; Saxena, Suraj and **Khanna, Nitin**, "First steps toward CNN based source classification of document images shared over messaging app", Signal Processing: Image Communication, DOI: 10.1016/j.image.201905.020, vol 78, pp 32-41, Oct 2019

**Jyoti, Vishav\*** and **Lahiri, Uttama**, "Human-computer interaction based joint attention cues: implications on functional and physiological measures for children with autism spectrum disorder", Computers in Human Behavior, DOI: 10.1016/j.chb.2019106163, Oct 2019

**Jyoti, Vishav\*** and **Lahiri, Uttama**, "Virtual reality based joint attention task platform for children with autism", IEEE Transactions on Learning Technologies, DOI: 10.1109/TLT.20192912371, vol 13, no 1, pp 198-210, Apr 2019

**Jyoti, Vishav\***; **Gupta, Sanika\*** and **Lahiri, Uttama**, "Understanding the role of objects in joint attention task framework for children with autism", IEEE Transactions on Cognitive and Developmental Systems, DOI: 10.1109/TCDS.20202983333, Mar 2020

**Kadam, Sujay D.\***; Chavan, Roshan A.; Rajiv, Abhijith and Palanhandalam-Madapusi, Harish J., "A perspective on using input reconstruction for command following", Circuits, Systems, and Signal Processing, DOI: 10.1007/s00034-019-01145-7, vol 38, no 12, pp 5920-5930, May 2019

**Kajla, Priyanka\*** and **George, Nithin V.**, "Speech quality enhancement using a two channel sparse adaptive filtering approach", Applied Acoustics, DOI: 10.1016/j.apacoust.2019107035, vol 158, Jan 2020

**Kanojia, Gagan\*** and **Raman, Shanmuganathan**, "Patch-based detection of dynamic objects in CrowdCam images", The Visual Computer, DOI: 10.1007/s00371-018-1480-3, vol 35, no 4, pp 524-534, Apr 2019

**Krishnappa Babu, Pradeep Raj\*** and **Lahiri, Uttama**, "Classification approach for understanding implications of emotions using eye-gaze", Journal of Ambient Intelligence and Humanized Computing, DOI: 10.1007/s12652-019-01329-8, vol 11, no 7, pp 2701-2713, May 2019

**Kumar, Deepesh\***; Sinha, Nirvik; Dutta, Anirban and **Lahiri, Uttama**, "Virtual reality-based balance training system augmented with operant conditioning paradigm", *BioMedical Engineering OnLine*, DOI: 10.1186/s12938-019-0709-3, vol 18, no 1, Aug 2019

**Kumar, Krishna\*** and **George, Nithin V.**, "A generalized maximum correntropy criterion based robust sparse adaptive room equalization", *Applied Acoustics*, DOI: 10.1016/j.apacoust.2019107036, vol 158, Jan 2020

Kumar, Naveen E. and **Ragavan, K.**, "Method-specific significance of field components in three methods of torque estimation", *IEEE Transactions on Magnetics*, DOI: 10.1109/TMAG.20192945905, vol 55, no 12, Dec 2019

Majhi, Subhra; Mukherjee, Abhijit; **George, Nithin V.** and Uy, Brian, "Corrosion detection in steel bar: A time-frequency approach", *NDT & E International*, DOI: 10.1016/j.ndteint.2019102150, vol 107, Oct 2019

**Mir, Ab Qayoom\***; **Joshi, Gayatri\***; **Ghosh, Piue\***; **Khandelwal, Shikha\***; **Kar, Ashish\***; **Hegde, Ravi S.**; **Khatua, Saumyakanti** and **Dutta, Arnab**, "Plasmonic gold nanoprisms-Cobalt molecular complex dyad mimics Photosystem-II for visible-NIR illuminated neutral water oxidation", *ACS Energy Letters*, DOI: 10.1021/acsenrgylett.9b01683, vol 4, no 10, pp 2428-2435, Oct 2019

**Mir, Ab Qayoom\***; **Joshi, Gayatri\***; **Ghosh, Piue\***; **Khandelwal, Shikha\***; **Kar, Ashish\***; **Hegde, Ravi S.**; **Khatua, Saumyakanti** and **Dutta, Arnab**, "Plasmonic gold nanoprisms-Cobalt molecular complex dyad mimics Photosystem-II for visible-NIR illuminated neutral water oxidation", *ACS Energy Letters*, vol 4, no 10, Oct 2019 (Cover Page)

**Mohapatra, Satyajit\*** and **Mohapatra, Nihar Ranjan**, "Gradient error compensation in SC-MDACs", *IEEE Transactions on Computer-Aided Design of Integrated Circuits and Systems*, DOI: 10.1109/TCAD.20202981020, Mar 2020

**Ojha, Apoorva\*** and **Mohapatra, Nihar R.**, "A computationally efficient quantum-corrected poisson solver for accurate device simulation of multi-gate FETs", *Solid-State Electronics*, DOI: 10.1016/j.sse.2019107625, vol 160, Oct 2019

**Panda, Soumya\***shree S. and **Hegde, Ravi S.**, "Transmission-mode all-dielectric metasurface color filter arrays designed by evolutionary search", *Journal of Nanophotonics*, DOI: 10.1117/1.JNP.14.016014, vol 14, no 1, Mar 2020

**Patel, Diptiben\*** and **Raman, Shanmuganathan**, "Object occlusion guided stereo image retargeting", *Pattern Recognition Letters*, DOI: 10.1016/j.patrec.201907.018, vol 125, pp 798-805, July 2019

**Patel, Diptiben\***; **Nagar, Rajendra\*** and **Raman, Shanmuganathan**, "Reflection symmetry aware image retargeting", *Pattern Recognition Letters*, DOI: 10.1016/j.patrec.201904.013, vol 125, pp 179-186, July 2019

**Prudhvraj, Dhanapala\***; **Kiran, P. B. S.\*** and **Pindoriya, Naran M.**, "Stochastic energy management of microgrid with nodal pricing", *Journal of Modern Power Systems and Clean Energy*, DOI: 10.35833/MPCE.2018.000519, vol 8, no 1, pp 102-110, Dec 2019

**Ray, Dwaipayan\***; **George, Nithin V.** and Meher, Pramod K."An analytical framework and approximation strategy for efficient implementation of distributed arithmetic based inner-product architectures", *IEEE Transactions on Circuits and Systems I: Regular Papers*, DOI: 10.1109/TCSI.20192948791, vol 67, no 1, pp 212-224, Jan 2020

**Ray, Dwaipayan\***; **George, Nithin V.** and Meher, Pramod Kumar, "Analysis and design of unified architectures for zero-attraction-based sparse adaptive filters", *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, DOI: 10.1109/TVLSI.20202965018, vol 28, no 5, pp 1321-1325, Jan 2020

Rezaee, Zeynab; Kaura, Surbhi; **Solanki, Dhaval\***; **Dash, Adyasha\***; Srivastava, M V Padma; **Lahiri, Uttama** and Dutta, Anirban, "Deep cerebellar transcranial direct current stimulation of the dentate nucleus to facilitate standing balance in chronic stroke survivors: A pilot study", *Brain Sciences*, DOI: 10.3390/brainsci10020094, vol 10, no 2, pp 94, Feb 2020

**Roy, Anirban\***; **Chawhan, Rohan\*** S. and **Chakraborty, Arup Lal**, "Field deployment of a 4320-nm quantum cascade laser-based TDLS system to compare the background CO<sub>2</sub> levels in Mt. Abu with foreground measurements in Gandhinagar, India", *Optical Engineering*, DOI: 10.1117/1.OE.59.2.024110, vol 59, no 2, Feb 2020

**Roy, Anirban\***; **Chawhan, Rohan\*** Shuddhodhan; **Patel, Rutu\***; Varadharajan, Surendar; Tiwari, Laxmi Mani; **Chakraborty, Arup Lal**; **Ghoroi, Chinmay** and **Srivastava, Gaurav**, "Quantifying the CO and CO<sub>2</sub> mole fraction in the plume of an aerosol-based fire extinguishing agent using 4560 nm and 4320 nm QCLs", *IEEE Sensors Journal*, DOI: 10.1109/JSEN.20192927081, July 2019

**Sai, M.\***; **Upadhyay, Parth\*** and **Srinivasan, Babji**, "Fault detection and isolation in electrical machines using deep neural networks", *Defense Science Journal*, DOI: 10.14429/dsj.69.14413, vol 69, no 3, pp 249-253, 2019

Sai, Munikoti; **Das, Laya\***; Natarajan, Balasubramaniam and **Srinivasan, Babji**, "Data driven approaches for diagnosis of incipient faults in DC motors", *IEEE transactions on Industrial Informatics*, DOI: 10.1109/TII.20192895132, vol 15, no 9, pp 5299-5308, Sep 2019

Sinith, M. S.; **Murthy, K. V. V.** and Tripathi, Shikha, "Raga recognition through tonic identification using flute acoustics", *International Journal of Advanced Intelligence Paradigms*, DOI: 10.1504/IJAIP.2020105821, vol 15, no 3, pp 273-286, Mar 2020

**Sompura, Jay\***; **Joshi, Amit\***; **Srinivasan, Babji** and **Srinivasan, Rajagopalan**, "A practical approach to improve alarm system performance: application to power plant", *Chinese Journal of Chemical Engineering*, DOI: 10.1016/j.cjche.2018.09.020, vol 27, no 5, pp 1094-1102, May 2019

**Thambi, Varsha\***; **Kar, Ashish\***; **Ghosh, Piue\***; **Paital, Diptiranjan\***; Gautam, Abhay Raj Singh and **Khatua, Saumyakanti**, "Synthesis of complex nanoparticle geometries via pH-Controlled overgrowth of gold nanorods", *ACS Omega*, DOI: 10.1021/acsomega.9b01119, Aug 2019

**Tyagi, Tushar\***; Sumathi, P., "Frequency estimation techniques in capacitance-to-frequency conversion measurement", *Review of Scientific Instruments*, DOI: 10.1063/1.5129000, vol 91, no 1, Jan 2020

Ullah, Mohd Faheem; **Das, Laya\***; **Parmar, Sweta\***; Rengaswamy, Raghunathan and **Srinivasan, Babji**, "On developing a framework for detection of oscillations in data", *ISA Transactions*, DOI: 10.1016/j.isatra.2018.12.026, vol 89, pp 96-112, June 2019

Vyas, Hardik and **Hegde, Ravi Sadananda**, "Waveguide interrogation of a compound plasmonic nanoantenna", *Journal of Nanophotonics*, DOI: 10.1117/1.JNP.13.026004, vol 13, no 2, Apr 2019

#### Magazine/Newspaper Articles/Short Story

**Pallath, Akash\***; **Joshi, Ansh** and **Dhariwal, Deepak**, "Without fundamental reforms to the education system, Indians will not innovate", *Fair Observer*, June 3, 2019

## PAPERS PRESENTED AT CONFERENCE

**Agarwal, Deepesh\***; Kumari, M.; Chinnaswamy, J.; R., Prabhavathy and **Srinivasan, Babji**, "Fault diagnosis and degradation analysis of PMDC motors using FEA based models", in the IEEE International conference on "Power Electronics, Smart Grid and Renewable Energy (PESGRE 2020)", Kochi, IN, Jan 02-04, 2020

**Agarwal, Deepesh\***; **Ramu, Sangeetha#**; Nagarajan, Murali; Rajappan, Prabhavathy; Chinnachamy, Jaishankar and **Srinivasan, Babji**, "IPMS for load sharing, monitoring and diagnosis of electrical loads in AFVs", in the IEEE 7th International Conference on Signal Processing & Integrated Networks (SPIN 2020), Amity University, Delhi, IN, Feb 27-28, 2020

Babu, Pradeep Raj Krishnappa; **Sinha, Sujata\***; **Roshaan S., Arvind\*** and **Lahiri, Uttama**, "Virtual reality based collaborative multiplayer task platform for children with autism", in the 10th International Conference on Computing, Communication and Networking Technologies (ICCCNT 2019), IIT Kanpur, IN, July 6-8, 2019

**Bhashini, R. Manju\*** and **Kanagaraj, Ragavan**, "Effect of winding layer and segmented rotor on performance of surface-mounted PMSM", in the 2020 IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE2020), Cochin, IN, Jan 2-4, 2020

**Boomiraja, Balaganesh\*** and **Kanagaraj, Ragavan**, "Convergence behaviour of Newton-Raphson method in node- and loop-based non-linear magnetic equivalent circuit analysis", in the 2020 IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE2020), Cochin, IN, Jan 2-4, 2020

**Boomiraja, Balaganesh\*** and **Kanagaraj, Ragavan**, "Torque density improvement in transverse flux machine using disc", in the 2019 Women Institute of Technology Conference on Electrical and Computer Engineering (WITCON ECE), Dehradun, IN, Nov 22-23, 2019

Cherkkil, Arun; **Narayanan, Vinod** and **George, Nithin V.**, "Integrated simulation of active noise cancellation using a computational fluid dynamics approach", in the 23rd International Congress on Acoustics (ICA2019), Aachen, DE, Sep 9-13, 2019

**Dahiwal, Payal\*** V. and **Pindoriya, Naran M.**, "Review on fault management in hybrid microgrid", in the 2019 IEEE Region 10 Symposium (TENSYPMP), Kolkata, IN, June 7-9, 2019

**Das, Bireswar**; **Sharma, Shivdutt\*** and **Vaidyanathan, P. R.\***, "Succinct representations of finite groups", in the International Symposium on Fundamentals of Computation Theory (FCT 2019), Copenhagen, DK, Aug 12-14, 2019

**Dash, Adyasha\***; **Yadav, Anand\*** and **Lahiri, Uttama**, "Physiology-sensitive virtual reality based strength training platform for post-stroke grip task", in the IEEE-EMBS International Conference on Biomedical and Health Informatics (BHI), Chicago, US, May 19-22, 2019

**Datta, Diptesh\***; **Dewangan, Piyush\***; **Surana, Neelam\*** and **Mekie, Joycee**, "Energy and area efficient 1-T ternary content addressable memory for high-speed search", in the 2019 IEEE International Conference on Electron Devices and Solid-State Circuits (EDSSC), Xi'an, CN, June 12-14, 2019

**Deb, Trisrota\***; **Ray, Dwaipayan\*** and **George, Nithin V.**, "On the design of dynamic adaptive exponential linear-in-the-parameters nonlinear filters for active noise control", in 26th International Congress on Sound and Vibration (ICSV26 2019), Montreal, CA, July 07-11, 2019

Dennis, Don; Acar, D.A.E.; Mandika, Vikram; **Sadasivan, V.S.\***; Saligrama, Venkatesh; Simhadri, H.V. and Jain, Prateek, "Shallow RNN: accurate time-series classification on resource constrained devices", in 33rd Annual Conference on Neural Information Processing Systems (NeurIPS 2019), Vancouver, CA, Dec 8-14, 2019

**Deshpande, Ajit Umesh\***; **Narayan Harish, Abhinav\***; **Singh, Shubhranshu\***; **Verma, Vinay\*** and **Khanna, Nitin**, "Neural network based block-level detection of same quality factor double JPEG compression", in the 7th International Conference on Signal Processing and Integrated Networks (SPIN-2020), Noida, IN, Feb 27-28, 2020



**Dutta, Ritik\***; **Gohil, Varun\*** and **Jain, Atishay\***, "Effect of feature hashing on fair classification", in the CoDS COMAD 2020: Proceedings of the 7th ACM IKDD CoDS and 25th COMAD, Hyderabad, IN, Jan 5-7, 2020

**Endla, Naveen Kumar\***, "Analytically determined graph based solution for minimum cogging in spm motors with integer slots per pole", in the 2019 IEEE International Electric Machines & Drives Conference (IEMDC), San Diego, US, May 12-15, 2019

**Ghosh, Piue\***; **Joshi, Gayatri\***; **Chakraborty, Arup Lal**; **Hegde, Ravi** and **Khatua, Saumyakanti**, "Synthesis of gold nanodroplets with field enhancement of  $10^5$  at their tips using a simple wet-chemical method", in the 2019 Conference on Lasers and Electro-Optics Europe & European Quantum Electronics Conference (CLEO/Europe-EQEC), Munich, DE, June 23-27, 2019

**Ghosh, Piue\***; **Kar, Ashish\***; **Chakraborty, Arup Lal**; **Sharma, Sudhanshu**; **Dutta, Arnab** and **Khatua, Saumyakanti**, "Photoelectrochemical water splitting with cobalt oxide coated gold nanorods under visible excitation", in the 2019 Conference on Lasers and Electro-Optics Europe & European Quantum Electronics Conference (CLEO/Europe-EQEC), Munich, DE, June 23-27, 2019

**Ghosh, Piue\***; **Kar, Ashish\***; **Thambi, Varsha\***; **Chakraborty, Arup Lal** and **Khatua, Saumyakanti**, "Large and controllable light-induced shift of the longitudinal surface plasmon resonance of gold nanorods submerged in hydroquinone solution", in the 2019 Workshop on Recent Advances in Photonics (WRAP), Guwahati, IN, Dec 13-14, 2019

**Harilal, Nidhin\***; **Shah, Rushil\***; **Sharma, Saumitra\*** and **Bhutani, Vedanta\***, "CARO: an empathetic health conversational chatbot for people with major depression", in the CoDS COMAD 2020: Proceedings of the 7th ACM IKDD CoDS and 25th COMAD, Hyderabad, IN, Jan 5-7, 2020

**Hegde, Ravi**, "Deep neural network (DNN) surrogate models for the accelerated design of optical devices and systems: moving beyond fully-connected feed forward architectures", in Novel Optical Systems, Methods, and Applications XXII, (SPIE 2019) San Diego, USA, Aug 11-15, 2019

Jha, Chandan and **Mekie, Joycee**, "Design of novel CMOS based inexact subtractors and dividers for approximate computing: an in-depth comparison with PTL based designs", in the 22nd Euromicro Conference on Digital System Design (DSD) 2019, Kallithea, Greece, GR, Aug 28-30, 2019

**Jha, Chandan Kumar\*** and **Chakraborty, Arup Lal**, "Real-time accurate monitoring of ten finger joint angles using a fiber bragg grating sensor-based glove for use in virtual rehabilitation", in the 2019 Workshop on Recent Advances in Photonics (WRAP), Guwahati, IN, Dec 13-14, 2019

**Jha, Chandan Kumar\*** and **Mekie, Joycee**, "SEDA - Single exact dual approximate adders for approximate processors", in the 56th Annual Design Automation Conference 2019, Las Vegas, US, June 2-6, 2019

**Jha, Chandan Kumar\***; **Nandi, Ankita\*** and **Mekie, Joycee**, "Quality tunable approximate adder for low energy image processing applications", in the 26th IEEE International Conference on Electronics, Circuits and Systems (ICECS) 2019, Genoa, IT, Nov 27-29, 2019

**Jha, Chandan Kumar\***; **Sinha, Oindrila** and **Chakraborty, Arup Lal**, "A fiber bragg grating sensor-based wearable system to detect the pre-dicrotic and dicrotic notch in the arterial pulse pressure waveform", in the 2019 IEEE 16th India Council International Conference (INDICON), Rajkot, IN, Dec 13-15, 2019

**Jyoti, Vishav\*** and **Lahiri, Uttama**, "Design of intelligent artificial agents: its application in joint attention task for children with autism", in the IEEE/ACIS 18th International Conference on Computer and Information Science (ICIS 2019), Beijing, CN,

June 17-19, 2019

**Jyoti, Vishav\***; **Gupta Sanika** and **Lahiri, Uttama**, "Virtual reality based avatar-mediated joint attention task for children with autism: implication on performance and Physiology", in the 10th International Conference on Computing, Communication and Networking Technologies (ICCCNT 2019), IIT Kanpur, IN, July 6-8, 2019

**Kanojia, Gagan\*** and **Raman, Shanmuganathan**, "MIC-GAN: multi-view assisted image completion using conditional generative adversarial networks", in the Twenty Sixth National Conference on Communications, IIT Kharagpur, Kharagpur, IN, Feb 21-23, 2020

**Kanojia, Gagan\*** and **Raman, Shanmuganathan**, "Simultaneous detection and removal of dynamic objects in multi-view images", in the IEEE Winter Conference on Applications of Computer Vision (WACV-2020), The Westin Snowmass Resort in Snowmass Village, Colorado, US, Mar 2-5, 2020

**Kanojia, Gagan\***; **Kumawat, Sudhakar\*** and **Raman, Shanmuganathan**, "Attentive spatio-temporal representation learning for diving classification", in the IEEE Conference on Computer Vision and Pattern Recognition (CVPR-2019) - 5th International Workshop on Computer Vision in Sports (CVsports), Long Beach, US, June 16-20, 2019

**Kanojia, Gagan\***; **Kumawat, Sudhakar\*** and **Raman, Shanmuganathan**, "Exploring temporal differences in 3D convolutional neural networks", in the 7th National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG 2019), KLE Technological University, Hubli, IN, Dec 22-24, 2019

**Khan, Zeeshan**; **Khanna, Mukul** and **Raman, Shanmuganathan**, "FHDR: HDR image reconstruction from a single LDR image using feedback network", in the 2019 IEEE Global Conference on Signal and Information Processing (GlobalSIP), Ottawa, CA, Nov 11-14, 2019

**Kiran, P. B. S.\*** and **Pindoriya, Naran**, "Centralized demand response framework of an aggregator under uncertainty", in the 2019 IEEE Innovative Smart Grid Technologies - Asia (ISGT Asia), Chengdu, CN, May. 21-24, 2019

**Kiran, P. B. S.\*** and **Pindoriya, Naran**, "Price setting of a microgrid operator in a radial distribution network", in the 2019 IEEE Innovative Smart Grid Technologies - Asia (ISGT Asia), Chengdu, CN, May. 21-24, 2019

**Kumawat, Sudhakar\*** and **Raman, Shanmuganathan**, "Local phase U-Net for fundus image segmentation", in the 44th International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Brighton, UK, May 12-17, 2019

**Kumawat, Sudhakar\*** and **Raman, Shanmuganathan**, "LP-3DCNN: unveiling local phase in 3D convolutional neural networks", in the IEEE Conference on Computer Vision and Pattern Recognition (CVPR), Long Beach, US, June 16-20, 2019

**Kumawat, Sudhakar\***; **Verma, Manisha##** and **Raman, Shanmuganathan**, "LBVCNN: Local binary volume convolutional neural network for facial expression recognition from image sequences", in the IEEE Conference on Computer Vision and Pattern Recognition (CVPR) - 9th International Workshop on Analysis and Modeling of Faces and Gestures (AMFG), Long Beach, US, June 16-20, 2019

**Lavania, Mili\***; **Surana, Neelam\***; **Anand, Ishant\*** and **Mekie, Joycee**, "Read-decoupled radiation hardened RD-DICE SRAM cell for low-power space applications", in IEEE International Conference on Electron Devices and Solid-State Circuits (EDSSC 2019), Xi'an, CN, June 12-14, 2019

**Madbhavi, Rahul\***; **Karimi, Hazrah Sufi**; **Natarajan, Balasubramaniam** and **Srinivasan, Babji**, "Tensor completion based state estimation in distribution systems", in the Eleventh Conference on Innovative Smart Grid Technologies (ISGT 2020), IEEE Power

& Energy Society (PES), Washington DC, USA, Feb 17-20, 2020

**Mastan, Indra Deep\*** and **Raman, Shanmuganathan**, "DCIL: Deep Contextual Internal Learning for image restoration and image retargeting", in the IEEE Winter Conference on Applications of Computer Vision (WACV 2020), Colorado, US, Mar 2-5, 2020

**Mastan, Indra Deep\*** and **Raman, Shanmuganathan**, "Multi-level encoder-decoder architectures for image restoration", in the New Trends in Image Restoration and Enhancement workshop and challenges on image and video restoration and enhancement in conjunction with CVPR 2019, Long Beach, US, June 16-20, 2019

**Mekkattillam, Yadukrishnan\***; **Mohapatra, Satyajit\*** and **Mohapatra, Nihar R.**, "Design and calibration of 14-bit 10 KS/s low power SAR ADC for Bio-medical applications", in the 23rd International Symposium on VLSI Design and Test (VDATE 2019), Indore, IN, July 4-6, 2019

**Nagar, Rajendra\*** and **Raman, Shanmuganathan**, "Reflection symmetry detection by embedding symmetry in a graph", in the 44th International Conference on Acoustics, Speech, and Signal Processing (ICASSP), Brighton, UK, May 12-17, 2019

**Nandi, Ankita\***; **Jha, Chandan Kumar\*** and **Mekie, Joycee**, "Should we code differently when using approximate circuits?", in the 2019 IEEE Asia Pacific Conference on Circuits and Systems (APCCAS), Bangkok, TH, Nov 11-14, 2019

**Pamnani, Arik\***; **Goel, Rajat\***; **Choudhari, Jayesh\*** and **Singh, Mayank**, "IIT Gandhinagar at SemEval-2019 Task 3: contextual emotion detection using deep learning", in the 13th International Workshop on Semantic Evaluation (SemEval-2019), Minneapolis, US, June 6-7, 2019

**Panda, Soumya\*** shree Soumyaprakash; **Vyas, Hardik Shyam\*** and **Hegde, Ravi S.**, "All-dielectric metasurfaces for reflection and transmission-mode color filter arrays", in the 2019 Workshop on Recent Advances in Photonics (WRAP), Guwahati, IN, Dec 13-14, 2019

**Patel, Diptiben\*** and **Raman, Shanmuganathan**, "Novel strategies for image retargeting: energy design, acceleration, and scene awareness", in the 7th National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG 2019), KLE Technological University, Hubli, IN, Dec 22-24, 2019

**Patel, Diptiben\*** and **Raman, Shanmuganathan**, "Scene text aware image retargeting", in the 2019 IEEE Global Conference on Signal and Information Processing (GlobalSIP), Ottawa, CA, Nov 11-14, 2019

**Pinto, Smitha Joyce**, "Design and performance of vehicle to grid integration with DG infrastructure", in the 2019 International Conference on Power Electronics Applications and Technology in Present Energy Scenario (PETPES), Mangalore, IN, Aug 29-31, 2019

**Pinto, Smitha Joyce**; **P. Narendra Babu**; **Peesapati, RangaBabu** and **Panda, Gayadhar**, "Monitoring and control of multibus microgrid system using FPGA platform", in the 2019 IEEE Region 10 Symposium (TENSYP), Kolkata, IN, June 7-9, 2019

**Priolkar, Neha\*** and **Kristi, Franklin#**, "Designing furniture based on student's lifestyle and merging with a sustainable campus", in the 3rd LeNS World Distributed Conference, Srishti Institute of Art, Design and Technology, Bangalore, IN, Apr 3-5, 2019

**Ravi, Akhilesh\***; **Yadav, Amit Kumar Singh\***; **Chauhan, Jainish\***; **Dholakia, Jatin\*** and **Jain, Naman\***, "SentEmoji: a dataset to generate empathising conversations", in the CoDS COMAD 2020: Proceedings of the 7th ACM IKDD CoDS and 25th COMAD, Hyderabad, IN, Jan 5-7, 2020

**Ravuri, Chandra Sekhar\***; **Sureddi, Rajesh**; **Dendi, Sathya Veera Reddy**; **Raman, Shanmuganathan** and **Channappayya, Sumohana S.**, "Deep no-

reference tone mapped image quality assessment", in Asilomar Conference on Signals, Systems, and Computers (ACSSC 2019), Pacific Grove, US, Nov 3-6, 2019

**Ray, Dwaipayan\***; **George, Nithin V.** and **Meher, Pramod Kumar**, "Analysis and design of approximate inner-product architectures based on distributed arithmetic", in the 2019 IEEE International Symposium on Circuits and Systems (ISCAS), Sapporo, JP, May 26-29, 2019

**Roy, Anirban\*** and **Chakraborty, Arup Lal**, "Quantum cascade laser-based in situ measurement of atmospheric CO and CO<sub>2</sub> in Gandhinagar using 1f and 2f wavelength modulation spectroscopy", in the 2019 Workshop on Recent Advances in Photonics (WRAP), Guwahati, IN, Dec 13-14, 2019

**Sadasivan, V.S.\*** and **Seelamantula, C.S.** "High accuracy patch-level classification of wireless capsule endoscopy images using a convolutional neural network", in 16th International Symposium on Biomedical Imaging (ISBI 2019), Venice, IT, Apr 8-11, 2019

**Sanjeevi, N. S. S.\***; **Mehta, Bharg\*** and **Vadali, Madhu**, "Preliminaries on dynamic modelling of flexible manipulators", in the 2019 Sixth Indian Control Conference (ICC), Hyderabad, IN, Dec 18-20, 2019

**Simi, V. R.**; **Edla, Damodar Reddy**; **Joseph, Justin#** and **Kuppili, Venkatanarashbabu**, "Prospect of stein's unbiased risk estimate as objective function for parameter optimization in image denoising algorithms: a case study on Gaussian smoothing kernel", in the 2019 International Conference on Data Science and Engineering (ICDSE), Patna, IN, Sep 26-28, 2019

**Singh, Shubham\***; **Miyapuram, Krishna P.** and **Raman, Shanmuganathan**, "DeepPFCN: deep parallel feature consensus network for person re-identification", in the 7th National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG 2019), KLE Technological University, Hubli, IN, Dec 22-24, 2019

**Solanki, Dhaval\***; **Kumar, Siddhant\*** and **Lahiri, Uttama**, "Body weight support assisted virtual reality based treadmill walk with gait characterization", in the 10th International Conference on Computing, Communication and Networking Technologies (ICCCNT 2019), IIT Kanpur, IN, July 6-8, 2019

**Solanki, Dhaval\***; **Kumar, Siddhant\*** and **Lahiri, Uttama**, "Computer-based treadmill-assisted gait rehabilitation platform augmented with body weight support and gait quantification", in the IEEE International Conference on Multimedia and Expo (ICME-2019), Shanghai, CN, July 8-12, 2019

**Solanki, Dhaval\***; **Kumar, Siddhant\***; **B., Shubha##** and **Lahiri, Uttama**, "Understanding implications of adaptive and progressive physiology-sensitive exercise on gait and physiological performance of patients with neurological disorder", in the International Conference on Neurological Disorders and Therapeutics (ICNDT 2019), National Institute of Pharmaceutical Education and Research (NIPER), Ahmedabad, IN, Oct 24-26, 2019

**Surana, Neelam\***; **Lavania, Mili\***; **Barma, Abhishek\*** and **Mekie, Joycee**, "Robust and high-performance 12-T interlocked SRAM for in-memory computing", in the 2020 Design, Automation & Test in Europe Conference & Exhibition (DATE), Grenoble, FR, Mar 9-13, 2020

**Suthar, Sachinkumar\***; **Kumar, Nitish#** and **Pindoriya, Naran M.**, "Cost-effective energy management of grid-connected PV and BESS: a case study", in the 2019 IEEE Innovative Smart Grid Technologies - Asia (ISGT Asia), Chengdu, CN, May 21-24, 2019

**Upadhyay, Parth\*** and **Kanagaraj, Ragavan**, "Stator and rotor pole shaping for bidirectional starting of two-phase switched reluctance motor", in the 2020 IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE2020), Cochin, IN, Jan 2-4, 2020

**Utsav, Jethva\***; **Kabaria, Dhawati**; **Vajpeyi, Ribhu\***; **Mina, Mohit\*** and **Srivastava, Vivek\***, "Stance detection in Hindi-English code-mixed data", in the CoDS COMAD 2020: Proceedings of the 7th ACM IKDD CoDS and 25th COMAD, Hyderabad, IN, Jan 5-7, 2020

**Veeramaneni, Naveen Deepak\*** and **Kanagaraj, Ragavan**, "Alternate tooth wound PM motor design for inductance based position estimation", in the 2020 IEEE International Conference on Power Electronics, Smart Grid and Renewable Energy (PESGRE2020), Cochin, IN, Jan 2-4, 2020

**Veeramaneni, Naveen Deepak\*** and **Kanagaraj, Ragavan**, "Post-fault operation of fault-tolerant three phase surface mounted PMSM", in the 2019 National Power Electronics Conference (NPEC), Tiruchirappalli, IN, Dec 13-15, 2019

**Verma, Shashkant**; **Nagar, Rajendra\*** **Nagar and Raman, Shanmuganathan**, "Fast semantic feature extraction using superpixels for soft segmentation", in Fourth International Conference on Computer Vision & Image Processing (CVIP), Malaviya National Institute of Technology, Jaipur, IN, Sep 27 - 29, 2019

**Verma, Vinay\*** and **Khanna, Nitin**, "CNN-based system for speaker independent cell-phone identification from recorded audio", in the New Trends in Image Restoration and Enhancement workshop and challenges on image and video restoration and enhancement in conjunction with CVPR 2019, Long Beach, US, June 16-20, 2019

**Vyas, Hardik Shyam\***; **Panda, Soumya\*** **shree Soumyaprakash and Hegde, Ravi S.**, "Optical response of a subwavelength grating waveguide loaded with a plasmonic nanoantenna", in the 2019 Workshop on Recent Advances in Photonics (WRAP), Guwahati, IN, Dec 13-14, 2019

**Yadav, Amit**; **Eady, Alexander Keith**; **Nabil, Sara** and **Girouard, Audrey**, "JoyHolder: tangible back-of-device mobile interactions", in the Proceedings of the 2019 ACM International Conference on Interactive Surfaces and Spaces - ISS '19, Daejeon, KR, Nov 10-13, 2019

## POSTERS PRESENTED

**Jyoti, Vishav\*** and **Lahiri, Uttama**, "Joint attention skill training using virtual reality based platform for children with neurodevelopmental disorder", in the International Conference on Neurological Disorders and Therapeutics (ICNDT 2019), National Institute of Pharmaceutical Education and Research (NIPER), Ahmedabad, IN, Oct 24-26, 2019

## HUMANITIES & SOCIAL SCIENCES

### BOOK CHAPTER

**Aiyadurai, Ambika**, "Hunting in Northeast India and the challenges of implementing the wildlife protection act", in Nature conservation in the new economy: people, wildlife and the law in India, New Delhi: Orient BlackSwan, pp 31-54, 2019, ISBN: 9789352876136.

**Chattopadhyay, Arka**, "Androgyny in the spectrum of sexuality and gender", in The cult of the androgyne: reflections in life and literature, art and religion, New Delhi: AuthorPress, 2020, ISBN: 9789389110678.

**Chattopadhyay, Arka**, "Economy of humour and horror: Mahesh, Mathematics and spectrality", in (Re)Presentations: problems, politics and praxis, PAIOLCK: Kolkata, 2019, ISBN: 9789388207140.

**Chattopadhyay, Arka**, "How to mourn the present: fiction, memory, and mourning in Paul Auster's man in the dark and John Banville's ancient light", in Knots: Post-Lacanian Psychoanalysis, Literature and Film, DOI: 10.4324/9781003002727, Routledge, Nov 2019, ISBN: 9781003002727.

**Chattopadhyay, Arka**, "Memory, image and

reading traces of the infinite: Gerald Murnane's a history of Books", in Gerald Murnane: another world in this one, DOI: 10.2307/j.ctvx5w92614, Sydney: Sydney University Press, pp 127-142, Mar 2020, ISBN: 9781743326404.

**Choksi, Nishaant**, "Pragmatics of script", in Handbook of pragmatics, DOI: 10.1075/hop.22.pra6, Netherlands: John Benjamins Publishing Company, pp 181-198, Jan 2020, ISBN: 9789027261656.

**Danino, Michel**, "Genetics and the Aryan issue", in History of ancient India, v.3: the texts, political history and administration till c. 200 BC, New Delhi: Aryan Books International, pp 44-64, 2019, 9788173054822.

**Danino, Michel**, "The horse and the Aryan debate", in History of ancient India, v.3: the texts, political history and administration till c. 200 BC, New Delhi: Aryan Books International, pp 30-43, 2019, 9788173054822.

**Danino, Michel**, "The Mahābhārata's sociocultural impact on India", in The Mahābhārata: its antiquity, historicity and impact on society, New Delhi: Research India Press, pp 156-162, 2019

**Danino, Michel**, "The Sarasvati river: issues and debate", in Saraswati: the river par excellence, Kolkata: Asiatic Society, pp 30, 2019

**Kumari, Omi\*** and **Kumar, Manish**, "Water governance: a pragmatic debate of 21st century; an Indian perspective", in Emerging issues in the water environment during anthropocene, DOI: 10.1007/978-981-32-9771-5\_19, Springer, pp 355-365, Aug 2019, ISBN: 9789813297715.

**Mehta, Mona G.**, "Chunaav/Election", in Keywords for India: a conceptual lexicon for the 21st century, London: Bloomsbury, Feb 2020, ISBN: 9781350039230, 9781350039247.

**Mehta, Mona G.**, "Jumla", in Keywords for India: a conceptual lexicon for the 21st century, London: Bloomsbury, Feb 2020, ISBN: 9781350039230, 9781350039247.

**Meshram, Tushar\***, "Contemporary dalit identity in Marathi Bhim geet", in Shabd aur sangeet: unravelling song text in India, Three Essays Collective, pp 253, Aug 2019, ISBN: 9789383968336.

**Patwardhan, Apoorv\* P.**; **Patidar, Rohan\*** and **George, Nithin V.**, "Dynamic nonlinear active noise control: a multi-objective evolutionary computing approach", in Nature-inspired methods for metaheuristics optimization, DOI: 10.1007/978-3-030-26458-1\_23, Switzerland: Springer Nature, pp 421-439, 2020, ISBN: 9783030264574.

**Rath, Arnapurna**, "The fiction of Ghosh and the poetics of literary genres", in Approaches to teaching the works of Amitav Ghosh, New York: Modern Language Association of America, pp 107-113, Apr 2019, ISBN: 9781603293976.

**Reddy, Srinivas**, "Stallions of the Indian ocean", in Exploring materiality and connectivity in anthropology and beyond, DOI: 10.14324/111.9781787357488, London: UCL Press, pp 98-115, Mar 2020, ISBN: 9781787357495.

## BOOKS

**Chattopadhyay, Arka** (Tr.), Harpless, a Novel by Rajarshi Chattopadhyay. Kolkata: Flying Turtle, 2019, ISBN: 9789388887366.

## E-PRINT ARCHIVES

**Reddy, Nagireddy Neelakanteswar\***, "The Cue-integrated sense of agency as operationalized in experiments is not a (Multisensory) perceptual effect, but is a judgment effect", PsyArXiv, Cornell University Library, DOI: <https://psyarxiv.com/pye2g/>, Oct 2019

**Singh, Shubham Kumar\***; **Miyapuram, Krishna P.** and **Raman, Shanmuganathan**, "DeepPFCN: deep parallel feature consensus network for person re-identification", arXiv, Cornell University Library, DOI:



arXiv:1911.07776, Nov 2019

## JOURNAL ARTICLES

Abbi, Anvita and **R., Vysakh\***, "Aspects of word formation processes in Luro: the endangered language of the Nicobar Islands", *Asian Languages and Linguistics*, DOI: 10.1075/alal.00001.abb, vol 1, no 1, pp 9-33, Mar 2020

**Aiyadurai, Ambika**, "A tribute to Ajeimai Yun", *Current Conservation*, vol 13, no 3, 2019

**Aiyadurai, Ambika**, "Voices from Dibang valley: Idu Mishmi, wildlife biologists and a wildlife sanctuary", *Current Conservation*, vol 14, no 1, 2020

Badenoch, Nathan; Perti, Madhu and **Choksi, Nishaant**, "Expressives as moral propositions in Mundari", *Indian Linguistics: Journal of the Linguistic Society of India*, vol 80, no 1-2, pp 1-17, 2019

**Banerjee, Dyotana\***, "Reading a Dalit movement through social media: limits and possibilities", *Critical Asian Studies*, July 2019

**Bharadwaj, Jahnu\***, "Archival research as fieldwork: reflections on a small government archive in Assam", *Critical Asian Studies*, June 2019

**Bharadwaj, Jahnu\***, "Coolies, tea plantations and the limits of physical violence in colonial Assam: a historiographical note", *Asian Ethnicity*, DOI: 10.1080/14631369.20191696666, Nov 2019

**Chattopadhyay, Arka**, "Before the door that opens on my story: Samuel Beckett and narrative as Detritus", *Language and Psychoanalysis*, DOI: 10.7565/landp.v8i1.1593, vol 8, no 1, pp 1-14, May 2019

**Chattopadhyay, Arka**, "Harold Pinter's aging male speakers: affect of exhaustion and metaphors of agency", *The Harold Pinter Review*, DOI: 10.5325/haropintrevi.3.1.0001, vol 3, no 1, pp 1-13, June 2019

**Chattopadhyay, Arka**, "Is there a parallax in the mind? Samuel Beckett and distance in the psychic archive", *Textual Practice*, DOI: 10.1080/0950236X.20201729850, Feb 2020

**Chattopadhyay, Arka**, "Mathematical possibilities in modernism: can literature be a system?", *Journal of Humanistic Mathematics*, DOI: 10.5642/jhummath.202001.13, vol 10, no 1, pp 295-316, Jan 2020

**Chattopadhyay, Arka**, "Ontology of sound in Harold Pinter's radio drama", *Sound Studies*, DOI: 10.1080/20551940.20191652021, pp 1-14, Sep 2019

**Choksi, Nishaant**, "Expressives and the multimodal depiction of social types in Mundari", *Language in Society*, DOI: 10.1017/S0047404519000824, vol 49, no 3, pp 379-398, Nov 2019

**Danino, Michel**, "Methodological issues in the Indo-European debate", *Journal of Biosciences*, DOI: 10.1007/s12038-019-9876-4, vol 44, no 3, July 2019

Fonseca, António Filipe; **Bandyopadhyay, Sohhom\***; Louçã, Jorge and **Manjaly, Jaison**, "Caste in the news: a computational analysis of Indian newspapers", *Social Media + Society*, DOI: 10.1177/2056305119896057, vol 5, no 4, Dec 2019

**George, Nithin** and **Sunny, Meera M. M.**, "Challenges to the modularity thesis under the Bayesian brain models", *Frontiers in Human Neuroscience*, DOI: 10.3389/fnhum.201900353, vol 13, Oct 2019

Goyal, Shruti and **Miyapuram, Krishna P.**, "Feedback influences discriminability and attractiveness components of probability weighting in descriptive choice under risk", *Frontiers in Psychology*, DOI: 10.3389/fpsyg.201900962, vol 10, Apr 2019

**Gundi, Mukta\*** and **Subramanyam, Malavika A.**, "Menstrual health communication among Indian adolescents: a mixed-methods study", *PLoS ONE*, DOI: 10.1371/journal.pone.0223923, vol 14, no 10, Oct 2019

**Jyoti, Vishav\*** and **Lahiri, Uttama**, "Human-computer interaction based joint attention cues: implications on functional and physiological measures for children with autism spectrum disorder", *Computers in Human Behavior*, DOI: 10.1016/j.chb.2019106163, Oct 2019

**Jyoti, Vishav\*** and **Lahiri, Uttama**, "Virtual reality based joint attention task platform for children with autism", *IEEE Transactions on Learning Technologies*, DOI: 10.1109/TLT.20192912371, vol 13, no 1, pp 198-210, Apr 2019

**Jyoti, Vishav\***; **Gupta, Sanika\*** and **Lahiri, Uttama**, "Understanding the role of objects in joint attention task framework for children with autism", *IEEE Transactions on Cognitive and Developmental Systems*, DOI: 10.1109/TCDS.20202983333, Mar 2020

**Krishnappa Babu, Pradeep Raj\*** and **Lahiri, Uttama**, "Classification approach for understanding implications of emotions using eye-gaze", *Journal of Ambient Intelligence and Humanized Computing*, DOI: 10.1007/s12652-019-01329-8, vol 11, no 7, pp 2701-2713, May 2019

**Kumar, Neeraj#**; Manning, Timothy F. and Ostry, David J., "Somatosensory cortex participates in the consolidation of human motor memory", *PLOS Biology*, DOI: 10.1371/journal.pbio.3000469, vol 17, no 10, Oct 2019

**Lahiri, Sharmita**, "Finding her own voice: protham protisruti, subarnalata, shwet pathorer thala & dahan", *South Asian Review*, DOI: 10.1080/02759527.20191672441, Oct 2019

**Lahiri, Sharmita**, "The process of translating into Bengali John Banville's fiction and the dream", *John Banville Project: Literature as Translation: the European Federation of Associations and Centres of Irish Studies*, JOHN BANVILLE, Nov 2019

**Mehta, Mona**, "Regional liberals and the urban anxieties of Indian populism", *International Journal of Urban and Regional Research*, vol 43, no 5, Sep 2019

Murmu, Tanmaya Tapaswini, "Tunia-Bonga: a folk story from the santal world of Odisha", *Active Muse*, June 2019

**Narayan, Vivek V.**, "Mirrors of the Soul", *CASTE: A Global Journal on Social Exclusion*, DOI: 10.26812/caste.v1i1.96, vol 1, no 1, pp 125-154, Feb 2020

**Samanta, Tannistha**, "Aging in e-place: reflections on online communities for the aged in India", *Journal of Women & Aging*, DOI: 10.1080/08952841.20191681884, Oct 2019

**Sengupta, Madhumita** and **Bharadwaj, Jahnu\***, "Caste census and the impact of colonial sociology in British Assam", *Asian Ethnicity*, DOI: 10.1080/14631369.20191709802, Dec 2019

**Sharma, Anupam Joya\*** and **Subramanyam, Malavika A.**, "Psychological wellbeing of middle-aged and older queer men in India: a mixed-methods approach", *PLoS ONE*, DOI: 10.1371/journal.pone.0229893, vol 15, no 3, Mar 2020

**Thomas, Tony\*** and **Sunny, Meera M. Mary**, "Diminished distractor exclusion for magnocellular features near the hand", *Experimental Brain Research*, DOI: 10.1007/s00221-020-05752-8, vol 238, no 3, pp 761-770, Feb 2020

**Thomas, Tony\*** and **Sunny, Meera M. Mary**, "Situational determinants of Hand-proximity effects", *Collabra: Psychology*, DOI: 10.1525/collabra.198, vol 5, no 1, June 2019

## Magazine/Newspaper Articles/Short Story

Atre, Sagar and **Gundi, Mukta\***, "The message needs to be clear: 'Corona has no face and no race'", *The Indian Express*, Mar 16, 2020

**Chattopadhyay, Arka**, "Nabarun Bhattacharya conjures ghosts of revolutionary dreams in his masterful novel 'Harbat' [Book Review]", *Words Without Borders*, Aug 2019

**Danino, Michel**, "Unorganised, decentralised India", *The New Indian Express*, Apr 2, 2019

**Danino, Michel**, "India, a resilient civilisation", *The New Indian Express*, Apr 30, 2019

**Devi, Heisam Olivia\***, "The vulnerability of the Rohingya refugees", in *Cafe Dissensus Everyday*, Sep 17, 2019

**Harchandani, Bhavna\*** and Parikh, Nisha, "The architecture of the boundaries and thresholds", *Punchat.in*, 2020

**Ingole, Prashant\*** (Tr.), "Dalitity: We, the twice-untouchables by Nutan", in *The Indian Express*, Oct 9, 2019

**Ingole, Prashant\*** and **Banerjee, Dyotana\***, "Coronavirus and caste: is our response to the pandemic casteist?", *The Quint*, Mar 21, 2020

**Ingole, Prashant\*** and Bhaskar, Anurag, "100 years of Ambedkar's journalism", *LiveLaw.in*, Jan 31, 2020

**Ingole, Prashant\***, "On Dalit writing and untranslatability", *Seminar*, no 726, pp 41-45, Feb 1, 2020

**Ingole, Prashant\***, "Writing a fading narrative into existence", *Indian Cultural Forum*, Feb 21, 2020

**Ingole, Prashant\***, "Ambedkarite protest music and the making of a 'Counter Public': an overview", in *Indian Cultural Forum*, Oct 11, 2019

**Ingole, Prashant\***, "Grassroot Dalit singing tradition keeps Ambedkar's philosophy alive", *Lila Interactions*, vol 2, no 3, pp 1-8, Jan-Mar 2020

**Ingole, Prashant\***, "Suraj Yengde's 'Caste Matters' suggests new directions for the anti-caste movement", in *TheWire.in*, Sep 14, 2019

**Lazar, Leslee**, "Let's leave research to the researchers", *TheWire.in*, Apr 20, 2019

**Rath, Arnapura**, "Ecological consciousness and the tale of the Nabagunjara from folk Odisha", *Fundamatics*, Jan 10, 2020

**Rath, Arnapura**, "How almost a century old Basanti translates into issues faced by the 'new woman'[Review of Basanti: Writing the New Woman]", *Kitaab*, Aug 22, 2019

**Reddy, Srinivas**, "Was Krishnadevaraya of Vijaynagara the greatest ever king of South India? this biography says so", *Scroll.in*, Mar 23, 2020

**Royson, Annie Rachel\***, "In search of the Kristapurana: a journey through Goa", in *Sahapedia*, Sep 2019

**Samanta, Tannistha**, "A beginner's guide to the importance of social capital during a pandemic", *TheWire.in*, Mar 30, 2020

**Samanta, Tannistha**, "Covid-19: in sickness and in wealth", *Forbes India*, Mar 20, 2020

## OTHERS

Banerjee, Arunava and **Chattopadhyay, Arka**, "Talking your way to mental health", in *PatientsEngage*, Oct 10, 2019

**Banerjee, Dyotana\***, "Savarna middle class and Article 15: Puncturing the 'politics' in the political", in *Countercurrents.org*, July 9, 2019

## PAPERS PRESENTED

## AT CONFERENCE

**Banerjee, Dyotana\***, "Contradictions in space and aspirations in the new Dalit politics in Ahmedabad", in the International Conference RC 21, In and Beyond the City: Emerging Ontologies, Persistent Challenges and Hopeful Futures, India Habitat Centre, New Delhi, Sep 18-21, 2019

**Banerjee, Dyotana\***, "Indigenous' capital and the politics of assimilation in the shaping of early 20th century urban spaces in Ahmedabad", in the International Conference & Workshop on Indian Business and Economic History, Indian Institute of Management Ahmedabad, IN, Aug 29-31, 2019

**Bharadwaj, Jahnu\***, "Crime, criminal justice and the politics of the subalterns: understanding subaltern subjectivity in colonial Assam", in the 2019 British Association for South Asian Studies Annual

Conference, Durham University, Durham, UK, Apr 3-5, 2019

**Bharadwaj, Jahnu\***, "Law, labour, and the question of violence: revisiting the historiography of labour in colonial Assam", in the International Conference on Land, Labour and Nation in contemporary South Asia: Claims and Contestations, Dibrugarh University Assam, IN, Feb 12-14, 2020

**Chattopadhyay, Arka**, "Things in ill seen ill said: abstraction, affect, and the impossibility of absence", in the Modern Language Association 2020 Annual Convention (MLA 2020), Seattle, US, Jan 9-12, 2020

**Chattopadhyay, Arka**, "Travelling on: Bengali and English literatures of worlding", in the South Asian Literary Association 2020 Annual Conference (SALA 2020), Seattle, US, Jan 7-9, 2020

**Demiroglu, Sevgi\***, "The timeless interaction of object and flesh: the study of Janjeer in understanding religious experience", in 2nd Regional Conference on Religious Experience and Description, Society for the Phenomenology of Religious Experience (SOPHERE), Valparaíso University, Indiana, US, Oct 10-12, 2019

**Ingle, Prashant\***, "Intersecting Dalit and cultural studies: De-Brahmanizing the theoretical space", in the Fifth International Conference on the Unfinished Legacy of Dr B.R. Ambedkar: Rethinking Gender and Religion, The New School, India-China Institute, New York, US, Oct 24-26, 2019

**Jaysell, Devika\***, "An invisible barrier in the visible transition of female education: a sociological analysis from an Indian perspective", in the International Institute of Knowledge Management, Bangkok, TH, Apr 25-27, 2018.

**Jyoti, Vishav\*** and **Lahiri, Uttama**, "Design of intelligent artificial agents: its application in joint attention task for children with autism", in the IEEE/ACIS 18th International Conference on Computer and Information Science (ICIS 2019), Beijing, CN, June 17-19, 2019

**Jyoti, Vishav\***, Gupta Sanika and **Lahiri, Uttama**, "Virtual reality based avatar-mediated joint attention task for children with autism: implication on performance and Physiology", in the 10th International Conference on Computing, Communication and Networking Technologies (ICCCNT 2019), IIT Kanpur, IN, July 6-8, 2019

**Nampoothiri, Aparna\***, "Internet and the women's question: a digital feminist critique from the global south", in the 14th Conference of the European Sociological Association, Manchester, UK, Aug 20-23, 2019

**Nampoothiri, Aparna\***, "To bleed or not to bleed: the conflict between faith, tradition and femininity on social media", in the 45th All India Sociological Conference University of Kerala, Thiruvananthapuram, IN, Dec 27-29, 2019

**Rai, Ayushi\***, "Domestic violence in the aftermath of natural disasters", in the Vina Mazumdar Memorial Fund Research Scholar's Workshop on Researching Rural India: Contemporary Challenges to Contextualising Women's Lives, Centre for Women's Development Studies, New Delhi, IN, Sep 18-19, 2019

**Rath, Arnapurna**, "Trolls and trivialities: the questions of language and ethics in the age of digital media", in the Arts, Knowledge, and Critique in the Digital Age in India Conference, Indian Institute of Technology (IIT) Hyderabad and Sahapedia, IN, Nov 28-29, 2019 [Virtual Presentation]

**Saraswati, Sayantani\*** and Chaudhuri, Mayurakshi, "Changing contours of marriage in Bhopalgarh, Rajasthan: an empirical study", in 5th World Congress on Women 2019, Bengaluru, IN, Sep 8, 2019

**Saraswati, Sayantani\***, "Kantha: a handicraft based livelihood of the women of Bengal: an empirical study", in the National Conference on Livelihood of Vulnerable Groups: Empirical and Theoretical

Dimensions, Department of Anthropology, University of Hyderabad, Hyderabad, IN, Sep 26-27, 2019

**Sharma, Shivani\*** and **Rath, Arnapurna**, "Texts, images and their textures: a semiotic reading of Amruta Patil's graphic novels *Adi Parva* and *Sauptik*", in 73rd Annual Convention of the Rocky Mountain Modern Language Association, El Paso, US, Oct 10-12, 2019 (Best Paper & Cash Award)

**Sharma, Shivani\*** and **Rath, Arnapurna**, "The Mahābhārata across mediums: intermedial connections and the epic genre", in the Arts, Knowledge, and Critique in the Digital Age in India Conference, Indian Institute of Technology (IIT) Hyderabad and Sahapedia, IN, Nov 28-29, 2019

**Singh, Shubham\***, **Miyapuram, Krishna P.** and **Raman, Shanmuganathan**, "DeepPFCN: deep parallel feature consensus network for person re-identification", in the 7th National Conference on Computer Vision, Pattern Recognition, Image Processing and Graphics (NCVPRIPG 2019), KLE Technological University, Hubli, IN, Dec 22-24, 2019

**Tripathi, Richa**, **Mukhopadhyay, Dyutiman**, **Singh, Chakresh Kumar**, **Miyapuram, Krishna Prasad** and **Jolad, Shivakumar**, "Characterization of functional brain networks and emotional centers using the complex networks techniques", in the International Conference on Complex Networks and Their Applications VIII, Lisbon, PT, Dec 10 - 12, 2019

## POSTERS PRESENTED

**Bhanap, Ruhi\*** and **Sunny, Meera M. M.**, "The effect of hand proximity on attentional repulsion effect", in the VI Annual Conference of Cognitive Science (ACCS - 2019), BITS Pilani KK Birla Goa Campus, Goa, IN, Dec 10-12 2019

**Chakravarthula, Lakshman\*** **Chakrav Nallan** and **Sunny, Meera M. M.**, "Reliable prediction errors in visual search increase distractor interference and eliminate contextual cost", in the VI Annual Conference of Cognitive Science (ACCS - 2019), BITS Pilani KK Birla Goa Campus, Goa, IN, Dec 10-12 2019

**Jyoti, Vishav\*** and **Lahiri, Uttama**, "Joint attention skill training using virtual reality based platform for children with neurodevelopmental disorder", in the International Conference on Neurological Disorders and Therapeutics (ICNDT 2019), National Institute of Pharmaceutical Education and Research (NIPER), Ahmedabad, IN, Oct 24-26, 2019

**Sreekanth C.\***, **EH, Vinaya\***, **George, Nithin** and **Sunny, Meera M. M.**, "Effect of feature-based attention on sensory attenuation", in the VI Annual Conference of Cognitive Science (ACCS - 2019), BITS Pilani KK Birla Goa Campus, Goa, IN, Dec 10-12 2019

## REVIEWS

**Aiyadurai, Ambika**, "[Review of the book *Natural Intimacies: Interspecies Relatedness in India's Central Himalayas* by R. Govindarajan]", *Conservation & Society*, DOI: 10.4103/cs.cs.19\_138, 2020

**Aiyadurai, Ambika**, "[Review of the book *Religion and Ecological Sustainability in China*, by James Miller, Dan Smyer Yu and Peter van der Veer]", *Journal of Chinese Religions*, vol 47, no 2, pp 230-233, Nov 2019

**Danino, Michel**, "[Review of the book: contribution to the history of the wheeled vehicle in India by Jean Deloche]", *Journal of the American Oriental Society*, vol 139, no 3, pp 756-758, Sep 2019

**Devi, Anusmita\***, "[Review of ageing in everyday life: materialities and embodiments Stephen Katz (ed.)]", *Ageing and Society*, DOI: 10.1017/S0144686X19001107, vo. 39, no 11, pp 2562-2564, Nov 2019

**Samanta, Tannistha**, "[Review of *Intersections of Ageing, Gender and Sexualities: Multidisciplinary*

*International Perspectives* by King, Andrew, Kathryn Almack and Rebecca L. Jones (eds.)]", *Anthropology & Aging*, DOI: 10.5195/aa.2020267, vol 41, no1, pp 123-125, Mar 2020

## WORKING PAPER

Ray, Debapriya and **Samanta, Tannistha**, "Motherhood penalty?": examining gender, work, and family among science professionals in India", *Susan Bulkeley Butler Center for Leadership Excellence and ADVANCE Working Paper Series: Navigating Careers in the Academy*, University of Purdue, US, vol 3, no 1, pp 37-51, 2020

## MATERIALS SCIENCE AND ENGINEERING

### BOOK CHAPTER

**Majhi, Sasmita**, **Tyagi, Anju\*** and **Mishra, Abhijit**, "Bio-polymeric packaging material for packaging of raw food", in *Reference Module in Materials Science and Materials Engineering*, DOI: 10.1016/B978-0-12-803581-8.10841-0, Elsevier, 2019, ISBN: 9780128035818.

### E-PRINT ARCHIVES

**Kumar, Nirmal**; **Nellaippan, Subramanian**; **Kumar, Ritesh**; **Malviya, Kirtiman Deo**; **Pradeep, K. G.**; **Singh, Abhishek K.**; **Sharma, Sudhanshu**; **Tiwary, Chandra Sekhar** and **Biswas, Krishanu**, "Instant and persistent hydrogen production using nano high entropy catalyst", *ChemRxiv.org*, DOI: 10.26434/chemrxiv.9777257.v1, Sep 2019

**Paliwal, Manas et al.**, "Liquid-phase reinforced Metal matrix (LMM) composite with non-intuitive properties", *arXiv, Cornell University Library*, DOI: arXiv:2002.03151, Feb 2020

**Raghav, Abhishek\***, **Hanindriyo, Adie Tri**; **Utimula, Keishu**; **Abbasnejad, Mohaddeseh**; **Maezono, Ryo** and **Panda, Emila**, "Electronic structure and defect states of undoped and (Nb, Ta)-doped anatase using density functional theory", *arXiv, Cornell University Library*, DOI: arXiv:2002.05351, Feb 2020

### JOURNAL ARTICLES

**Bandaru, Narendra\*** and **Panda, Emila**, "Annealing induced transformation and enhancement in the electronic defect states of Al doped ZnO films and their correlation with the optoelectronic properties", *Journal of Alloys and Compounds*, DOI: 10.1016/j.jallcom.201903.032, vol 789, pp 573-587, June 2019

**Bandaru, Narendra\*** and **Panda, Emila**, "Reheating induced atomic migration in Al-doped ZnO (AZO) films: Effect on the growth of AZO/ZnO bilayer", *Materials Science in Semiconductor Processing*, DOI: 10.1016/j.mssp.201905.011, vol 100, pp 220-224, Sep 2019

**Biswas, Prosanta**; **Patra, Surajit**; **Roy, Himadri**; **Tiwary, Chandra Sekhar**; **Paliwal, Manas** and **Mondal, Manas Kumar**, "Effect of Mn addition on the mechanical properties of Al-12.6Si alloy: role of Al<sub>15</sub>(MnFe)<sub>3</sub>Si<sub>2</sub> intermetallic and microstructure modification", *Metals and Materials International*, DOI: 10.1007/s12540-019-00535-5, Nov 2019

**Chakraborty, Swaroop\*** and **Misra, Superb K.**, "A comparative analysis of dialysis based separation methods for assessing copper oxide nanoparticle solubility", *Environmental Nanotechnology, Monitoring & Management*, DOI: 10.1016/j.enmm.2019100258, vol 12, Dec 2019

**Dev, Arushi\***, **Naskar, Niladri**; **Kumar, Nishant**; **Jena, Ashutosh\*** and **Paliwal, Manas**, "A systematic investigation of secondary phase dissolution in Mg-Sn alloys", *Journal of Magnesium and Alloys*, DOI: 10.1016/j.jma.201911.002, vol 7, no 4, pp 725-



737, Nov 2019

**Dhawan, Rishi\*** and **Panda, Emila**, "Mg addition in undoped and Al-doped ZnO films: Fabricating near UV transparent conductor by bandgap engineering", *Journal of Alloys and Compounds*, DOI: 10.1016/j.jallcom.201902.289, vol 788, pp 1037-1047, June 2019

Kalita, Paragmoni and **Sarmah, Sidharth\***, "A new diffusion-regulated flux splitting method for compressible flows", *Computers & Fluids*, DOI: 10.1016/j.compfluid.2019104264, vol 192, Oct 2019

Kansara, Krupa; **Paruthi, Archini\***; **Misra, Superb K.**; Karakoti, Ajay S. and Kumar, Ashutosh, "Montmorillonite clay and humic acid modulate the behavior of copper oxide nanoparticles in aqueous environment and induces developmental defects in zebrafish embryo", *Environmental Pollution*, DOI: 10.1016/j.envpol.2019113313, vol 255, no 2, Dec 2019

Magisetty, RaviPrakash; **Prajapati, Deepak\***; Ambekar, Rushikesh; Shukla, Anuj and Kandasubramanian, Balasubramanian, " $\beta$ -phase Cu-phthalocyanine/acrylonitrile butadiene styrene terpolymer nano-composite film technology for organo-electronic applications", *The Journal of Physical Chemistry C*, DOI: 10.1021/acs.jpcc.9b08878, Oct 2019

**Mahesh, V. P.\*** and **Arora, Amit**, "Effect of tool shoulder diameter on the surface hardness of Aluminum-Molybdenum surface composites developed by single and double groove friction stir processing", *Metallurgical and Materials Transactions A*, DOI: 10.1007/s11661-019-05410-x, Aug 2019

Majhi, Sasmita; **Arora, Ankita\*** and **Mishra, Abhijit**, "Surface immobilization of a short antimicrobial peptide (AMP) as an antibacterial coating", *Materialia*, DOI: 10.1016/j.mta.2019100350, May 2019

Mehra, Sonali; Bishnoi, Swati; **Jaiswal, Ankit\***; Jagadeeswararao, Metikoti; Srivastava, Avinash Kumar; Sharma, Shailesh Narain and Vashishtha, Parth, "A review on spectral converting nanomaterials as a photoanode layer in dye sensitized solar cells with implementation in energy storage devices", *Energy Storage*, DOI: 10.1002/est.120, Dec 2019

**Pandya, Sheetal\***; **Gurav, Shubhankar\***; Hedau, Gaurav; Saha, Sandip K. and **Arora, Amit**, "Effect of axial conduction in integral rough friction stir channels: experimental thermo-hydraulic characteristics analyses", *Heat and Mass Transfer*, DOI: 10.1007/s00231-019-02788-7, vol 56, no 6, pp 1725–1738, Jan 2020

**Pandya, Sheetal\***; Mishra, Rajiv S. and **Arora, Amit**, "Channel formation during friction stir channeling process - a material flow study using X-Ray micro-computed tomography and optical microscopy", *Journal of Manufacturing Processes*, DOI: 10.1016/j.jmapro.201903.021, vol 41, pp 48-55, May 2019

**Patel, Tvarit\*** A. and **Panda, Emila**, "Copper deficiency induced varying electronic structure and optoelectronic properties of Cu<sub>2</sub>-xS thin films", *Applied Surface Science*, DOI: 10.1016/j.apsusc.201905.235, vol 488, pp 477-484, Sep 2019

**Patel, Tvarit\*** A. and **Panda, Emila**, "Thickness induced microstructure, electronic structure and optoelectronic properties of Cu<sub>2</sub>S films deposited by radio frequency magnetron sputtering", *Journal of Applied Physics*, DOI: 10.1063/1.5126294, vol 126, no 24, Dec 2019

Persaud, Indushekhar; Raghavendra, Achyut J.; **Paruthi, Archini\***; Alsaleh, Nasser B.; Minarchick, Valerie C.; Roede, James R.; Podila, Ramakrishna and Brown, Jared M., "Defect-induced electronic states amplify the cellular toxicity of ZnO nanoparticles", *Nanotoxicology*, DOI: 10.1080/17435390.20191668067, pp 1-17, Sep 2019

**Prasad, Vighnesh\***; **Mehrotra, Surya Pratap** and **Thareja, Prachi**, "Influence of additives, particle size, and incorporation of coarse particles on

the shear rheology of concentrated Indian coal ash slurries", *Asia-Pacific Journal of Chemical Engineering*, DOI: 10.1002/apj.2358, Aug 2019

**Prasad, Vighnesh\***; **Thareja, Prachi** and **Mehrotra, Surya Pratap**, "Role of rheology on the hydraulic transportation of lignite coal and coal ash slurries in the pipeline", *International Journal of Coal Preparation and Utilization*, DOI: 10.1080/19392699.20201721482, Jan 2020

**Rout, Arpan\***; **Gumaste, Anurag\***; Pandey, Praful; Oliveira, Eliezer Fernando; Demiss, Solomon; **Mahesh, V. P.\***; Bhatt, Chintan; Raphael, Kiran; **Ayyagari, Ravi Sastri**; Autreto, Pedro A. S.; Palit, Mithun; Olu, Femi; Galvao, Douglas S.; **Arora, Amit** and **Tiwary, Chandra Sekhar**, "Bioinspired aluminum composite reinforced with soft polymer with enhanced strength and plasticity", *Advanced Engineering Materials*, DOI: 10.1002/adem.201901116, Jan 2020

**Rout, Arpan\***; Pandey, Praful; Oliveira, Eliezer Fernando; da Silva Autreto, Pedro Alves; **Gumaste, Anurag\***; **Singh, Amit\***; Galvão, Douglas Soares; **Arora, Amit** and **Tiwary, Chandra Sekhar**, "Atomically locked interfaces of metal (Aluminum) and polymer (Polypropylene) using mechanical friction", *Polymer*, DOI: 10.1016/j.polymer.201902.049, vol 169, pp 148-153, Apr 2019

**Sahlot, Pankaj\***; Jha, Kaushal; Dey, G. K. and **Arora, Amit**, "Wear-induced changes in FSW tool pin profile: effect of process parameters", *Metallurgical and Materials Transactions A*, DOI: 10.1007/s11661-018-4580-9, vol 49, no 6, pp 2139-2150, June 2019

**Sahlot, Pankaj\***; **Singh, Amit Kumar\***; Badheka, Vishvesh J. and **Arora, Amit**, "Friction stir welding of copper: numerical modeling and validation", *Transactions of the Indian Institute of Metals*, DOI: 10.1007/s12666-019-01629-9, vol 72, no 5, pp 1339-1347, May 2019

**Sebastian, Roshan\***; **Singh, Amit Kumar\***; **Paliwal, Manas** and Gautam, Abhay, "Investigation of the interface between SLM processed nickel alloy on a cast iron substrate", *Progress in Additive Manufacturing*, DOI: 10.1007/s40964-018-0066-y, vol 4, no 2, pp 131-142, June 2019

**Sethulakshmi, N.\***; Mishra, Avnish; Ajayan, P. M.; Kawazoe, Yoshiyuki; Roy, Ajit K.; Singh, Abhishek K. and **Tiwary, Chandra Sekhar**, "Magnetism in two-dimensional materials beyond graphene", *Materials Today*, DOI: 10.1016/j.mattod.201903.015, Apr 2019

Shah, Juhi; Pandya, Alok; **Goyal, Prateek\***; **Misra, Superb K.** and Singh, Sanjay, "BSA-decorated magnesium nanoparticles for scavenging hydrogen peroxide from human hepatic cells", *ACS Applied Nano Materials*, DOI: 10.1021/acsanm.0c00088, vol 3, no 4, pp 3355-3370, Mar 2020

Sharma, Ritukesh; **Singh, Amit Kumar\***; **Arora, Amit\***; Pati, S. and De, P. S., "Effect of friction stir processing on corrosion of Al-TiB<sub>2</sub> based composite in 3.5 wt.% sodium chloride solution", *Transactions of Nonferrous Metals Society of China*, DOI: 10.1016/S1003-6326(19)65045-4, vol 29, no 7, pp 1383-1392, July 2019

**Singh, Amit Kumar\***; **Kumar, Bhoopendra\***; Jha, Kaushal; Antonello, Astarita; Antonino, Squillace; Franchitti, Stefania and **Arora, Amit**, "Friction stir welding of additively manufactured Ti-6Al-4V: microstructure and mechanical properties", *Journal of Materials Processing Technology*, DOI: 10.1016/j.jmatprotec.2019116433, Oct 2019

**Singh, Amit Kumar\***; **Sahlot, Pankaj\***; **Paliwal, Manas** and **Arora, Amit**, "Heat transfer modeling of dissimilar FSW of Al 6061/AZ31 using experimentally measured thermo-physical properties", *The International Journal of Advanced Manufacturing Technology*, DOI: 10.1007/s00170-019-04276-y, vol 105, no 1-4, pp 771-783, Nov 2019

**Singh, Rana Pratap\***; **Arora, Payal\***; Nellaippan, Subramanian; Shivakumara, C.; Irusta, Silvia; **Paliwal, Manas** and **Sharma, Sudhanshu**, "Electrochemical insights into layered La<sub>2</sub>CuO<sub>4</sub> perovskite: active ionic copper for selective CO<sub>2</sub> electroreduction

at low overpotential", *Electrochimica Acta*, DOI: 10.1016/j.electacta.2019134952, vol 326, Dec 2019

**Syed Ansari, S.\***; Chakravarthi, K. V. A.; Narayana Murty, S. V. S.; Nageswara Rao, B. and **Mukhopadhyay, Jyoti**, "Hot workability and microstructure control through the analysis of stress-strain curves during hot deformation of M350 grade maraging steel", *Materials Performance and Characterization*, DOI: 10.1520/MPC20190030, vol 8, no 5, June 2019

**Thambi, Varsha\***; **Kar, Ashish\***; **Ghosh, Piue\***; **Paital, Diptiranjan\***; **Gautam, Abhay Raj Singh** and **Khatua, Saumyakanti**, "Synthesis of complex nanoparticle geometries via pH-Controlled overgrowth of gold nanorods", *ACS Omega*, DOI: 10.1021/acsomega.9b01119, Aug 2019

**Tiwary, Chandra Sekhar et al.**, "3D carbon coated NiCo<sub>2</sub>S<sub>4</sub> nanowires doped with nitrogen for electrochemical energy storage and conversion", *Journal of Colloid and Interface Science*, DOI: 10.1016/j.jcis.201908.087, vol 556, pp 449-457, Nov 2019

**Tiwary, Chandra Sekhar et al.**, "Self-assembly of 0D/2D homostructure for enhanced hydrogen evolution", *Materials Today*, DOI: 10.1016/j.mattod.202002.006, vol 36, pp 83-90, Mar 2020

**Tiwary, Chandra Sekhar\***; **Paliwal, Manas**; Kashyap, Sanjay; Pandey, Praful; Sarkara, Suman; Kundu, Ipsita; Bhaskar, Shakti; Jung, In-Ho; Chattopadhyay, K. and Banerjee, Dipankar, "Microstructures and mechanical properties of ternary Ti-Si-Sn alloys", *Materials Science and Engineering: A*, DOI: 10.1016/j.msea.2019138472, vol 770, no 7, Jan 2020

Zhang, Peng; **Misra, Superb**; Guo, Zhiling; Rehkämper, Mark and Valsami-Jones, Eugenia, "Stable isotope labeling of metal/metal oxide nanomaterials for environmental and biological tracing", *Nature Protocols*, DOI: 10.1038/s41596-019-0205-z, Sep 2019

Zheng, Wan; Anzaldue, Miguel; **Arora, Ankita\***; Jiang, Yunjiang; McIntyre, Kelly; Doerfert, Michael; Winter, Theodora; **Mishra, Abhijit**; Ma, Hairong and Liang, Hongjun, "Environmentally benign nanoantibiotics with a built-in deactivation switch responsive to natural habitats", *Biomacromolecules*, DOI: 10.1021/acs.biomac.0c00163, vol 21, no 6, pp 2187-2198, Mar 2020

## MAGAZINE/NEWSPAPER ARTICLES/ SHORT STORY

**Anushikha\***, "India elections: a time of crisis for the BJP?", *Fair Observer*, Apr 1, 2019

**Pallath, Akash\***; Joshi, Ansh and **Dhariwal, Deepak\***, "Without fundamental reforms to the education system, Indians will not innovate", *Fair Observer*, June 3, 2019

**Rakshit, Ayan\***, "How revolutionary is the fourth industrial revolution?", *Fair Observer*, Sep 12, 2019

## PAPERS PRESENTED AT CONFERENCE

**Adil, Mohammad\*** and **Mukhopadhyay, Jyoti**, "Mechanical and microstructural behavior of dissimilar AA2014-T6 and AA7075-T6 aluminium alloys joined by friction stir welding", in the TMS 2020 Annual Meeting & Exhibition - Light Metals symposia, Cham, CH, Feb 23-27, 2020

**Mahesh, V. P.\*** and **Arora, Amit**, "Effect of friction stir processing on the surface hardness of Aluminium-Molybdenum surface composites", in the 33rd International Conference on Surface Modification Technologies, University of Naples, IT, June 26-28, 2019

**Mahesh, V. P.\*** and **Arora, Amit**, "Molybdenum particle reinforced aluminium surface composites fabricated by friction stir processing", in the 73rd Annual Technical Meeting, NMD-ATM 2019, The

Indian Institute of Metals, Trivandrum, Kerala, IN, Nov 13-16, 2019

**Patel, Tvarit\*** and **Panda, Emila**, "Copper vacancy induced varying optoelectronic properties of Cu<sub>2</sub>-xS films", in the European Materials Research Society (E-MRS) Spring Meeting-2019, Nice, FR, May 27-31, 2019

**Prasad, Vighnesh\***; **Mehrotra, Surya Pratap** and **Thareja, Prachi**, "Shear yield stress measurement of coal ash pastes from modified slump tests", in the 3rd International Conference on Powder, Granule and Bulk Solids: Innovations and Applications (PGBSIA 2020), Thapar University, Patiala, IN, Feb 26-29, 2020

Ratrey, Poonam; **Datta, Bhaskar**; **Dalvi, Sameer V.** and **Mishra, Abhijit**, "Octaarginine-drug complexes for drug delivery to microbes and enhanced potency", in the 56th Japanese Symposium (JPS) 2019, Tokyo, Japan, Oct 23-25, 2019

Ratrey, Poonam; **Datta, Bhaskar** and **Mishra, Abhijit**, "Microscopy based approach investigating the bacterial cell membrane damage by peptide-drug hybrids", in the 12th Asia-Pacific Microscopy Conference (APMC-2020), Hyderabad, IN, Feb 3-7, 2020

**Utsav, Jethva\***; **Kabaria, Dhawit**; **Vajpeyi, Ribhu\***; **Mina, Mohit\*** and **Srivastava, Vivek\***, "Stance detection in Hindi-English code-mixed data", in the CoDS COMAD 2020: Proceedings of the 7th ACM IKDD CoDS and 25th COMAD, Hyderabad, IN, Jan 5-7, 2020

## POSTERS PRESENTED

**Arora, Amit** and **Singh, Amit Kumar\***, "A Scanning Electron Micrography", in the Metallography Contest in the SEM category at the 57th National Metallurgist's Day (NMD) and the 73rd Annual Technical Meeting (ATM) 2019, Thiruvananthapuram, IN, Nov 13-16, 2019 (Metallography Contest Award)

**Chakraborty, Swaroop\***; **Mahadevan, Barath K.**; **Shah, Juhi**; **Balasubramanian, C.**; **Singh, Sanjay** and **Misra, Superb K.**, "Development of stable isotope enriched 65-Cu doped ferrite nanoparticles for nanoparticles tracing", in the 6th Nano Today Conference organized by Elsevier, Lisbon, PT, June 16-20, 2019

**Mahesh, V. P.\*** and **Arora, Amit**, "Surface property enhancement in aluminium metal matrix surface composites by friction stir processing", in the International Conference on Advanced Materials (ICAM 2019), Nirmalagiri College, Kannur, IN, June 12-14, 2019

**Pidathala, Ranga Teja** and **Ranganathan, Raghavan**, "Mechanical behaviour of AlFeCuMgSi light weight high entropy alloys under uniaxial tension and compression using atomistic simulations", in the International Workshop on High Entropy Materials (IWHM 2020), IIT Kanpur, IN, Mar 7-8, 2020

**Ratrey, Poonam\*** and **Mishra, Abhijit**, "Micro-CT: a scanning electron micrograph", in the Metallography Contest under SEM and Optical category: 12th Asia-Pacific Microscopy Conference (APMC-2020), Hyderabad, IN, Feb 3-7, 2020

**Saha, Sarmistha#** and **Mishra Abhijit**, "Amphiphilic polymer coated nanoparticles: a promising platform to deliver drugs", in Symposium on Frontier Problems in Nanoscience and Nanotechnology (FPNN- 2020), IIT Gandhinagar, IN, Feb 14-15, 2020 (Best Poster Award)

**Saha, Sarmistha#** and **Mishra, Abhijit**, "Self-assembled polymer encapsulated drug nanostructures for fine-tuning the stability and controlled drug release", in the 16th Pacific Polymer Conference (PPC-2019), One Commonwealth, SG, Dec 8-12, 2019

# MATHEMATICS

## E-PRINT ARCHIVES

Bertapelle, Alessandra; Previato, Emma and **Saha, Arnab**, "Arithmetic jet spaces", arXiv, Cornell University Library, DOI: arXiv:2003.12269, Mar 2020

**Dhama, Shivam\*** and **Pahlajani, Chetan D.**, "Approximation of linear controlled dynamical systems with small random noise and fast periodic sampling", arXiv, Cornell University Library, DOI: arXiv:2001.07057, Jan 2020

**Dixit, Atul** and **Kumar, Rahul\***, "On Hurwitz Zeta function and Lommel functions", arXiv, Cornell University Library, DOI: arXiv:1912.01199, Dec 2019

**Dixit, Atul** and **Roy, Arindam**, "Analogue of a fock-type integral arising from electromagnetism and its applications in number theory", arXiv, Cornell University Library, DOI: arXiv:1907.03650, July 2019

**Gupta, Rajat**, "On sum-of-tails identities", arXiv, Cornell University Library, DOI: arXiv:2002.00447, Feb 2020

Mahatab, Kamalakshya; Pańkowski, Łukasz, **Vatwani, Akshaa**, "Joint extreme values of L-functions", arXiv, Cornell University Library, DOI: arXiv:2001.09274, Jan 2020

**Mehta, Ranjana\***; **Saha, Joydip** and **Sengupta, Indranath**, "Numerical semigroups generated by concatenation of arithmetic sequences", arXiv, Cornell University Library, DOI: arXiv:1802.02564v7, Mar 2020

**Saha, Joydip** and **Sengupta, Indranath**, "Derivation modules of joins", arXiv, Cornell University Library, DOI: arXiv:1909.01611, Sep 2019

## JOURNAL ARTICLES

**Amrutiya, Sanjay**, "A note on certain Tannakian group schemes", Archivum Mathematicum, DOI: 10.5817/AM2020-1-21, vol 56, no 1, pp 21-29, 2020

**Chakraborty, Partha Sarathi** and **Saurabh, Bipul#**, "Gelfand-Kirillov dimension of the quantized algebra of regular functions on homogeneous spaces", Proceedings of the American Mathematical Society, DOI: 10.1090/proc/14522, May 2019

**Dixit, Atul** and **Gupta, Rajat**, "On squares of odd zeta values and analogues of Eisenstein series", Advances in Applied Mathematics, DOI: 10.1016/j.aam.201906.003, vol 110, pp 86-119, Sep 2019

**Dixit, Atul**, "A simple proof of a congruence for a series involving the little q-Jacobi polynomials", Annals of Combinatorics, DOI: 10.1007/s00026-019-00456-5, vol 23, no 3-4, pp 713-716, Nov 2019

**Dwivedi, Gaurav**; **Tyagi, Jagmohan** and **Verma, Ram Baran\***, "Stability of positive solution to fractional logistic equations", Funkcialaj Ekvacioj-Serio Internacia, DOI: 10.1619/fesi.62.61, vol 62, no 1, pp 61-73, 2019

**Kumar, Dharmendra\***, "Positive solution to singular elliptic problems with subcritical nonlinearities", Nonautonomous Dynamical Systems, DOI: 10.1515/msds-2019-0007, vol 6, no 1, pp 99-107, Dec 2019

**Kumar, Dharmendra\***, "Semilinear elliptic problems with singular terms on the Heisenberg group", Complex Variables and Elliptic Equations, DOI: 10.1080/17476933.2018.1557157, May 2019

**Kumar, Rahul\***, "The generalized modified Bessel function and its connection with Voigt line profile and Humbert functions", Advances in Applied Mathematics, DOI: 10.1016/j.aam.2019101986, vol 114, Mar 2020

**Mehta, Ranjana\***; **Saha, Joydip** and **Sengupta, Indranath**, "Betti numbers of Briesklyn's curves in A<sup>4</sup>", Journal of Algebra and Its Applications, DOI: 10.1142/S0219498819501433, vol 18, no 8, Aug 2019

**Roy, Arindam** and **Vatwani, Akshaa**, "Zeros of partial sums of L-functions", Advances in Mathematics, DOI: 10.1016/j.aim.201902.009, vol 346, no 13, pp 467-509, Apr 2019

**Saha, Joydip**; **Sengupta, Indranath** and **Tripathi, Gaurab**, "Primary decomposition and normality of certain determinantal ideals", Proceedings - Mathematical Sciences, DOI: 10.1007/s12044-019-0487-7, vol 129, no 4, June 2019

**Saha, Joydip**; **Sengupta, Indranath** and **Tripathi, Gaurab**, "Transversal intersection of monomial ideals", Proceedings - Mathematical Sciences, DOI: 10.1007/s12044-019-0509-5, vol 129, no 5, Aug 2019

**Saurabh, Bipul#**, "Spectral dimension of spheres", Communications in Algebra, DOI: 10.1080/00927872.20201721514, Feb 2020

**Tyagi, Jagmohan** and **Verma, Ram Baran\***, "Lyapunov-type inequality for extremal Pucci's equations", Journal of the Australian Mathematical Society, DOI: 10.1017/S1446788719000569, Jan 2020

**Tyagi, Jagmohan** and **Verma, Ram Baran\***, "Positive solution to extremal Pucci's equations with singular and gradient nonlinearity", Discrete & Continuous Dynamical Systems - A, DOI: 10.3934/dcds.2019110, vol 39, no 5, pp 2637-2659, 2019

# MECHANICAL ENGINEERING

## BOOK CHAPTER

**Unnikrishnan, Akash\*** and **Narayanan, Vinod**, "Signature of linear instability in transition zone measurements in boundary layer", in Recent Asian research on thermal and fluid Sciences, DOI: 10.1007/978-981-15-1892-8\_48, Singapore: Springer, pp 627-640, Feb 2020, ISBN: 9789811518911.

## E-PRINT ARCHIVES

**Ahmed, Zeeshan\*** and **Bhargav, Atul**, "Effect of aggregation morphology on thermal conductivity and viscosity of Al<sub>2</sub>O<sub>3</sub>-CO<sub>2</sub> nanofluid: a molecular dynamics approach", arXiv, Cornell University Library, DOI: arXiv:1910.05715, Oct 2019

**Sinha, Ankita\*** and **Bhargava, Atul**, "A simplified model for predicting shrinkage during low temperature air drying of porous food materials", engrXiv, Cornell University Library, DOI: engrxiv.org/4uqb2, Nov 2019

## JOURNAL ARTICLES

Altmann, Thomas; Robert, Justin; Bouma, Andrew; **Swaminathan, Jaichander** and **Lienhard, John H.**, "Primary energy and exergy of desalination technologies in a power-water cogeneration scheme", Applied Energy, DOI: 10.1016/j.apenergy.2019113319, vol 252, Oct 2019

**Bhoraniya, Ramesh** and **Narayanan, Vinod**, "Global stability analysis of axisymmetric boundary layer: effect of axisymmetric forebody shapes", Pramana, DOI: 10.1007/s12043-019-1855-7, vol 93, no 6, Dec 2019

**Bhoraniya, Ramesh** and **Narayanan, Vinod**, "Global stability analysis of spatially developing boundary layer: effect of streamwise pressure gradients", Fluid Dynamics, DOI: 10.1134/S0015462819060028, vol 54, no 6, pp 821-834, Dec 2019

**Chung, Hyung Won**; **Swaminathan, Jaichander** and **Lienhard, John H.**, "Multistage pressure-retarded osmosis configurations: A unifying framework and thermodynamic analysis", Desalination, DOI: 10.1016/j.desal.2019114230, vol 476, Feb 2020

**Fulpagare, Yogesh**; **Bhargav, Atul** and **Joshi, Yogendra**, "Dynamic thermal characterization of raised floor plenum data centers: Experiments and CFD", Journal of Building Engineering, DOI: 10.1016/j.jobbe.2019100783, vol 25, Sep 2019

**Ghosh, Piue\***; **Kar, Ashish\***; **Khandelwal, Shikha\***; **Vyas, Divya\***; **Mir, Ab Qayoom\***; **Chakraborty, Arup Lal**; **Hegde, Ravi S.**; **Sharma, Sudhanshu**; **Dutta, Arnab** and **Khatua, Saumyakanti**, "Plasmonic CoO-



Decorated Au Nanorods for Photoelectrocatalytic Water Oxidation", ACS Applied Nano Materials, DOI: 10.1021/acsanm.9b01258, Aug 2019

**Ghosh, Uddipta**, "Electro-magneto-hydrodynamics of non-linear viscoelastic fluids", Journal of Non-Newtonian Fluid Mechanics, DOI: 10.1016/j.jnnfm.2020104234, vol 277, Mar 2020

**Gurnani, Sagarkumar\*** and **Damodaran, Murali**, "Computational aeromechanics of paper airplanes", Journal of Aircraft, DOI: 10.2514/1.C035339, June 2019

**Iyer, S. Srikesh\***; **Joseph, Joel V.** and **Vashista, Vineet**, "Evolving toward subject-specific gait rehabilitation through single-joint resistive force interventions", Frontiers in Neurobotics, DOI: 10.3389/fnbot.202000015, vol 14, Mar 2020

**Kadam, Sujay D.\***; Chavan, Roshan A.; Rajiv, Abhijith and **Palanthandalam-Madapusi, Harish J.**, "A perspective on using input reconstruction for command following", Circuits, Systems, and Signal Processing, DOI: 10.1007/s00034-019-01145-7, vol 38, no 12, pp 5920-5930, May, 2019

**Kumar, Sanjay\***; **Morya, Vinod\***; **Gadhavi, Joshna\***; **Vishnoi, Anjani\***; Singh, Jaskaran and **Datta, Bhaskar**, "Investigation of nanoparticle immobilized cellulase: nanoparticle identity, linker length and polyphenol hydrolysis", Heliyon, DOI: 10.1016/j.heliyon.2019e01702, vol 5, no 5, May 2019

**Mathur, Nilkumar\***; **Mane, Tejas\*** and **Sundaram, Dilip**, "Atomistically informed melting models for aluminum nanocrystals", Chemical Physics, DOI: 10.1016/j.chemphys.201903.007, vol 522, pp 188-198, June 2019

**Nair, Prasanth P.\***; S., Amsha; Suryan, Abhilash and Nizetic, Sandro, "Investigation of flow characteristics in supersonic combustion ramjet combustor toward improvement of combustion efficiency", International Journal of Energy Research, DOI: 10.1002/er.5257, Mar 2020

**Pandya, Sheetal\***; **Gurav, Shubhankar\***; Hedau, Gaurav; Saha, Sandip K. and **Arora, Amit**, "Effect of axial conduction in integral rough friction stir channels: experimental thermo-hydraulic characteristics analyses", Heat and Mass Transfer, DOI: 10.1007/s00231-019-02788-7, vol 56, no 6, pp 1725-1738, Jan 2020

Parsa, Behnoosh; Samani, Ekta; Hendrix, Rose; Devine, Cameron; **Singh, Shashi\***; Devasia, Santosh and Banerjee, Ashis, "Toward ergonomic risk prediction via segmentation of indoor object manipulation actions using spatiotemporal convolutional networks", IEEE Robotics and Automation Letters, DOI: 10.1109/LRA.20192925305, July 2019

**Rout, Arpan\***; **Gumaste, Anurag\***; Pandey, Praful; Oliveira, Eliezer Fernando; Demiss, Solomon; **Mahesh, V. P.\***; Bhatt, Chintan; Raphael, Kiran; **Ayyagari, Ravi Sastri**; Autreto, Pedro A. S.; Palit, Mithun; Olu, Femi; Galvao, Douglas S.; **Arora, Amit** and **Tiwary, Chandra Sekhar**, "Bioinspired aluminum composite reinforced with soft polymer with enhanced strength and plasticity", Advanced Engineering Materials, DOI: 10.1002/adem.201901116, Jan 2020

Sajadi, Seyed Mohammad; Owuor, Peter Samora; Vajtai, Robert; Lou, Jun; **Ayyagari, Ravi Sastri**; **Tiwary, Chandra Sekhar** and Ajayan, Pulickel M., "Boxception: impact resistance structure using 3D printing", Advanced Engineering Materials, DOI: 10.1002/adem.201900167, vol 21, no 8, Aug 2019

**Sarode, Ajinkya\***; Raj, Rishi and **Bhargav, Atul**, "Erratum: Scalable macroscale wettability patterns for pool boiling heat transfer enhancement", Heat Mass Transfer, DOI: 10.1007/s00231-019-02809-5, Jan 2020

**Sarode, Ajinkya\***; Raj, Rishi and **Bhargav, Atul**, "Scalable macroscale wettability patterns for pool boiling heat transfer enhancement", Heat Mass Transfer, DOI: 10.1007/s00231-019-02783-y, Nov 2019

**Saxena, Utkarsh\***; **Chouksey, Shubham** and

**Rane, Kaustubh**, "Spontaneous translation of nanodroplet over a heterogeneous surface due to thermal cycles: role of solid-liquid interfacial fluctuations", Molecular Physics, DOI: 10.1080/00268976.20191657191, Aug 2019

Singh, Gurpreet; **Vadera, Meet\***; Samavedham, Lakshminarayanan and Lim, Erle Chuen Hian, "Multi-class diagnosis of Neurodegenerative diseases: a Neuroimaging machine learning based approach", Industrial & Engineering Chemistry Research, DOI: 10.1021/acs.iecr.8b06064, vol 58, no 26, pp 11498-11505, July 2019

**Swaminathan, Jaichander**; Tow, Emily W.; Stover, Richard L. and Lienhard, John H., "Practical aspects of batch RO design for energy-efficient seawater desalination", Desalination, DOI: 10.1016/j.desal.2019114097, vol 470, Nov 2019

**Thomas, Tibin\*** and **Narayanan, Vinod**, "Convective heat transfer between liquid argon flows and heated carbon nanotube arrays using molecular dynamics", Journal of Applied Fluid Mechanics, DOI: 10.29252/jafm.12.03.2903, vol 12, no 3, pp 971-980, 2019

**Thomas, Tibin\*** and **Narayanan, Vinod**, "Heat transfer by convection in carbon nanotube arrays using molecular dynamics approach", Journal of Applied Fluid Mechanics, vol 12, no 3, May 2019

**Yadav, Pinki\***; **Kulkarni, Prasanna\*** and **Sundaram, Dilip Srinivas**, "First principles informed atomistic-scale calculations of equilibrium energy accommodation coefficients for aluminum-noble gas systems", Journal of Physical Chemistry C, DOI: 10.1021/acs.jpcc.9b11394, vol 124, no 13, pp 7182-7195, Mar 2020

## PAPERS PRESENTED AT CONFERENCE

**Adil, Mohammad\*** and **Mukhopadhyay, Jyoti**, "Mechanical and microstructural behavior of dissimilar AA2014-T6 and AA7075-T6 aluminium alloys joined by friction stir welding", in the TMS 2020 Annual Meeting & Exhibition - Light Metals symposia, Cham, CH, Feb 23-27, 2020

Babu, Pradeep Raj Krishnappa; **Sinha, Sujata\***; **Roshan S., Arvind\*** and **Lahiri, Uttama**, "Virtual reality based collaborative multiplayer task platform for children with autism", in the 10th International Conference on Computing, Communication and Networking Technologies (ICCCNT 2019), IIT Kanpur, IN, July 6-8, 2019

**Cherkkil, Arun\***; **Narayanan, Vinod** and **George, Nithin V.**, "Integrated simulation of active noise cancellation using a computational fluid dynamics approach", in the 23rd International Congress on Acoustics (ICA2019), Aachen, DE, Sep 9-13, 2019

**Dash, Ranjita\*** and **Palanthandalam-Madapusi, Harish J.**, "When to use intermittent control for stabilization?", in the 2019 Sixth Indian Control Conference (ICC), Hyderabad, IN, Dec 18-20, 2019

**Ghosh, Uddipta**; Le Borgne, T. and Meheust, Y., "Coupled electrohydrodynamic transport through fractures", in the 11th Interpore Annual Meeting, Valencia, ES, May 6-10, 2019

**Iyer, S. Srikesh\***; **Joseph, Joel V.\***; **Sanjeevi, N. S. S.\***; **Singh, Yogesh\*** and **Vashista, Vineet**, "Development and applicability of a cable driven wearable adaptive rehabilitation suit (WeARS)", in the 28th IEEE International Conference on Robot and Human Interactive Communication (RO-MAN 2019), New Delhi, IN, Oct 14-18, 2019 (Best Paper Award)

**Khan, Zeeshan\***; Khanna, Mukul and **Raman, Shanmuganathan**, "FHDR: HDR image reconstruction from a single LDR image using feedback network", in the 2019 IEEE Global Conference on Signal and Information Processing (GlobalSIP), Ottawa, CA, Nov 11-14, 2019

Prajapati, Pratik; **Parekh, Sagar\*** and **Vashista, Vineet**, "Collaborative transportation of cable-suspended payload using two quadcopters with human in the loop", in the 28th IEEE International

Conference on Robot and Human Interactive Communication (RO-MAN 2019), New Delhi, IN, Oct 14-18, 2019

**Sanjeevi, N. S. S.\***; **Mehta, Bharg\*** and **Vadali, Madhu**, "Preliminaries on dynamic modelling of flexible manipulators", in the 2019 Sixth Indian Control Conference (ICC), Hyderabad, IN, Dec 18-20, 2019

**Singh, Yogesh\***; Kher, Manan and **Vashista, Vineet**, "Intention detection and gait recognition (IDGR) system for gait assessment: a pilot study", in the 28th IEEE International Conference on Robot and Human Interactive Communication (RO-MAN 2019), New Delhi, IN, Oct 14-18, 2019 (Best Paper & Cash Award)

## PHYSICS

### E-PRINT ARCHIVES

**Aarthy, Esakkiappan\***; **Rai, Archita\***; Ganesh, Shashikiran and Vadawale, Santosh V., "NICSPol: a near infrared polarimeter for the 1.2 m telescope at Mount Abu infrared observatory", arXiv, Cornell University Library, DOI: arXiv:1907.10040, July 2019

**Bhattacharyya, Arpan**; Das, Saurya; Haque, S. Shajidul and Underwood, Bret, "Cosmological complexity", arXiv, Cornell University Library, DOI: arXiv:2001.08664, Jan 2020

**Chakraborty, Kaustav\***; Goswami, Srubabati and Karmakar, Biswajit, "Consequences of  $\mu$ - $\tau$  reflection symmetry for 3+1 neutrino mixing", arXiv, Cornell University Library, DOI: arXiv:1904.10184, Apr 2019

**Chandra, Vinod\***; **Kurian, Manu\***; Naik, Lakshmi J. and Sreekanth, V., "Thermal dilepton production in collisional hot QCD medium in the presence of chromo-turbulent fields", arXiv, Cornell University Library, DOI: arXiv:2003.13645, Mar 2020

**Coleppa, Baradhvaj\***; **Sarkar, Agnivo\*** and Rai, Santosh Kumar, "Charged Higgs discovery prospects", arXiv, Cornell University Library, DOI: arXiv:1909.11992, Sep 2019

**Ghosh, Avirup** and Mishra, Rohit, "Inhomogeneous Jacobi equation and Holographic subregion complexity", arXiv, Cornell University Library, DOI: arXiv:1907.11757, July 2019

**Ghosh, Avirup\***; Jana, Soumya; **Mishra, Akash Kumar\*** and **Sarkar, Sudipta**, "Constraints on higher curvature gravity from time delay between GW170817 and GRB 170817A", arXiv, Cornell University Library, DOI: arXiv:1906.08014, June 2019

**Ghosh, Rajes\***; **Fairoos, C.\*** and **Sarkar, Sudipta**, "Overcharging higher curvature black holes", arXiv, Cornell University Library, DOI: arXiv:1906.08016, June 2019

**Gopinadhan, Kalon et al.**, "Perfect proton selectivity in ion transport through two-dimensional crystals", arXiv, Cornell University Library, DOI: arXiv:1908.07852, Aug 2019

**Kurian, Manu\*** and **Chandra, Vinod** and Das, Santosh K., "Impact of longitudinal bulk viscous effects to heavy quark transport in a strongly magnetized hot QCD medium", arXiv, Cornell University Library, DOI: arXiv:2002.03325, Feb 2020

**Kurian, Manu\***; Das, Santosh K. and **Chandra, Vinod**, "Heavy quark dynamics in a hot magnetized QCD medium", arXiv, Cornell University Library, DOI: arXiv:1907.09556, July 2019

**Mishra, Akash Kumar\*** and Chakraborty, Sumanta, "Strong cosmic censorship in higher curvature gravity", arXiv, Cornell University Library, DOI: arXiv:1911.09855, Nov 2019

**Mishra, Akash Kumar\*** and **Sarkar, Sudipta**, "Overcharging a multi black hole system and cosmic censorship", arXiv, Cornell University Library, DOI: arXiv:1905.00394, May 2019

**Reza, Amit\*** and **Tripathi, Richa\***, "A class of randomized Subset Selection Methods for large complex networks", arXiv, Cornell University

Library, DOI: arXiv:1905.04452, May 2019

**Roy, Soumen\***; **Sengupta, Anand S.** and Arun, K. G., "Unveiling the spectrum of inspiralling binary black holes", arXiv, Cornell University Library, DOI: arXiv:1910.04565, Oct 2019

Sarkar, Ranadeep; Gopalswamy, Nat and Srivastava, Nandita, "An observationally constrained analytical model for predicting the magnetic field vectors of ICMEs at 1 AU", arXiv, Cornell University Library, DOI: arXiv:1912.03494, Dec 2019

**Sengupta, Anand et al.**, "Search for sub-solar mass ultracompact binaries in Advanced LIGO's second observing run", arXiv, Cornell University Library, DOI: arXiv:1904.08976, Apr 2019

**Sengupta, Anand S. et al.**, "Search for intermediate mass black hole binaries in the first and second observing runs of the advanced LIGO and virgo network", arXiv, Cornell University Library, DOI: arXiv:1906.08000, July 2019

**Singh, Chakresh Kumar\***; Filho, Demival Vasques; Jolad, Shivakumar and O'Neale, Dion R. J., "Evolution of interdependent co-authorship and citation networks", arXiv, Cornell University Library, DOI: arXiv:1909.00185, Aug 2019

**Swain, Abinash\* et al.**, "Relating the curvature of De Sitter universe to open quantum lamb shift spectroscopy", arXiv, Cornell University Library, DOI: arXiv:1905.07403, May 2019

Watanabe, Gentaro; **Venkatesh, B. Prasanna**; Talkner, Peter; Hwang, Myung-Joong and Campo, Adolfo del, "Quantum statistical enhancement of the collective performance of multiple bosonic engines", arXiv, Cornell University Library, DOI: arXiv:1904.07811, Apr 2019

**Yousuf Jamal, Mohammad\*** and **Chandra, Vinod**, "Energy loss of heavy quarks in the isotropic collisional hot QCD medium", arXiv, Cornell University Library, DOI: arXiv:1907.12033, July 2019

## JOURNAL ARTICLES

**Aarthi, Esakkiappan\***; **Rai, Archita\***; Ganesh, Shashikiran and Vadawale, Santosh V., "NICSPol: a near-infrared polarimeter for the 1.2-m telescope at Mount Abu infrared observatory", Journal of Astronomical Telescopes, Instruments, and Systems, DOI: 10.1117/1.JATIS.5.3.035006, vol 5, no 3, Aug 2019

**Bhandari, Satyapriya et al.**, "Engineering quantum dots with ionic liquid: a multifunctional white light emitting hydrogel for enzyme packaging", Advanced Optical Materials, DOI: 10.1002/adom.201902022, Feb 2020

**Bhandari, Satyapriya**; Roy, Shilaj; Pramanik, Sabyasachi; Mandal, Prasenjit and Manna, Mihir, "Hue and chromaticity based exploring of surface complexation induced tunable emission from a non luminescent quantum dot", Chemistry: An Asian Journal, DOI: 10.1002/asia.201901107, Sep 2019

**Bhattacharyya, Arpan et al.**, "Chaos and complexity in quantum mechanics", Physical Review D, DOI: 10.1103/PhysRevD.101.026021, vol 101, no 2, Jan 2020

**Bhattacharyya, Arpan**; Nandy, Pratik and Sinha, Aninda, "Renormalized circuit complexity", Physical Review Letters, DOI: 10.1103/PhysRevLett.124.101602, vol 124, no 10, Mar 2020

**Bhattacharyya, Arpan**; Takayanagi, Tadashi and Umemoto, Koji, "Universal local operator quenches and entanglement entropy", Journal of High Energy Physics, DOI: 10.1007/JHEP11(2019)107, vol 2019, no 11, pp 107, Nov 2019

**Chakraborty, Kaustav\***; Goswami, Srubabati and Karmakar, Biswajit, "Consequences of  $\mu$ - $\tau$  reflection symmetry for 3+1 neutrino mixing", Physical Review D, DOI: 10.1103/PhysRevD.100.035017, vol 100, no 3, Aug 2019

**Chakraborty, Kaustav\***; Goswami, Srubabati; Gupta, Chandan and Thakore, Tarak, "Enhancing the hierarchy and octant sensitivity of ESSvSB

in conjunction with T2K, NOvA and ICAL@INO", Journal of High Energy Physics, DOI: 10.1007/JHEP05(2019)137, vol 2019, no 5, May 2019

**Coleppa, Baradhwaj; Sarkar, Agnivo\*** and Rai, Santosh Kumar, "Charged Higgs discovery prospects", Physical Review D, DOI: 10.1103/PhysRevD.101.055030, vol 101, no 5, Mar 2020

**Ghosh, Avirup**; Jana, Soumya; **Mishra, Akash Kumar\*** and **Sarkar, Sudipta**, "Constraints on higher curvature gravity from time delay between GW170817 and GRB 170817A", Physical Review D, DOI: 10.1103/PhysRevD.100.084054, vol 100, no 8, Oct 2019

**Ghosh, Rajes\***; **Fairoos, C.\*** and **Sarkar, Sudipta**, "Overcharging higher curvature black holes", Physical Review D, DOI: 10.1103/PhysRevD.100.124019, vol 100, no 12, Dec 2019

**Ghosh, Snigdha**; Mukherjee, Arghya; Roy, Pradip and Sarkar, Sourav, "General structure of the neutral p meson self-energy and its spectral properties in a hot and dense magnetized medium", Physical Review D, DOI: 10.1103/PhysRevD.99.096004, vol 99, no 9, May 2019

**Ghosh, Snigdha**; Samanta, Subhasis; Ghosh, Sabyasachi and Mishra, Hiranmaya, "Viscosity calculations from hadron resonance gas model: Finite size effect", Optics Express, DOI: 10.1142/S0218301319500368, vol 28, no 9, June 2019

**Gopinadhan, Kalon et al.**, "Perfect proton selectivity in ion transport through two-dimensional crystals", Nature Communications, DOI: 10.1038/s41467-019-12314-2, vol 10, no 1, Dec 2019

**Jamal, Mohammad Yousuf\*** and **Chandra, Vinod**, "Energy loss of heavy quarks in the isotropic collisional hot QCD medium", The European Physical Journal C, DOI: 10.1140/epjc/s10052-019-7278-2, Sep 2019

**Jamal, Mohammad Yousuf\***; **Mitra, Sukanya\*** and **Chandra, Vinod**, "Optical properties of an anisotropic hot QCD medium", Journal of Physics G: Nuclear and Particle Physics, DOI: 10.1088/1361-6471/ab3cf2, vol 47, no 3, Aug 2019

Kaushal, Rahul K.; **Sarkar, Ankita\***; Mishra, Kanchan; Sinha, Rajiv; Nepal, Santosh and **Jain, Vikrant**, "Spatio-temporal variability in stream power distribution in the upper Kosi river basin, central Himalaya: controls and geomorphic implications", Geomorphology, DOI: 10.1016/j.geomorph.2019.106888, vol 350, Oct 2019

Khanna, Sakshum; **Utsav\***; Chaliyawala, Harsh; Paneliya, Sagar; Roy, Debmalaya; Mukhopadhyay, Kingsuk; **Banerjee, Rupak** and Mukhopadhyay, Indrajit, "Systematic investigation of close-packed silica nanospheres monolayer under sintering conditions", Journal of the European Ceramic Society, DOI: 10.1016/j.jeurceramsoc.2018.11.047, vol 39, no 4, pp 1411-1419, Apr 2019

Khanna, Sakshum; **Utsav\***; Patel, Roma; Marathey, Priyanka; Chaudari, Rakesh; Vora, Jay; **Banerjee, Rupak**; Ray, Abhijit and Mukhopadhyay, Indrajit, "Growth of titanium dioxide nanorod over shape memory material using chemical vapor deposition for energy conversion application", Materials Today: Proceedings, DOI: 10.1016/j.matpr.2019.10.035, Dec 2019

Kulkarni, Sumeet; Phukon, Khun Sang; **Reza, Amit\***; Bose, Sukanta; **Dasgupta, Anirban**; Krishnaswamy, Dilip and **Sengupta, Anand S.**, "Random projections in gravitational wave searches of compact binaries", Physical Review D, DOI: 10.1103/PhysRevD.99.101503, vol 99, no 10, May 2019

**Kurian, Manu\*** and **Chandra, Vinod**, "Longitudinal conductivity of hot magnetized collisional QCD medium in the inhomogeneous electric field", Physical Review D, DOI: 10.1103/PhysRevD.99.116018, vol 99, no 11, June 2019

**Kurian, Manu\***; Das, Santosh K., and **Chandra, Vinod**, "Heavy quark dynamics in a hot magnetized QCD medium", Physical Review D, DOI: 10.1103/PhysRevD.100.074003, vol 100, no 7, Oct 2019

**Mandal, Subir\***; Pallamraju, Duggirala; Karan,

Deepak K.; Phadke, Kedar A.; Singh, Ravindra P. and Suryawanshi, Pradip, "On deriving gravity wave characteristics in the daytime upper atmosphere using radio technique", Journal of Geophysical Research: Space Physics, DOI: 10.1029/2019JA026723, July 2019

**Mishra, Akash Kumar\*** and Chakraborty, Sumanta, "Strong cosmic censorship conjecture in higher curvature gravity", Physical Review D, DOI: 10.1103/PhysRevD.101.064041, vol 101, no 6, Mar 2020

**Mishra, Akash Kumar\*** and **Sarkar, Sudipta**, "Overcharging a multi-black-hole system and cosmic censorship", Physical Review D, DOI: 10.1103/PhysRevD.100.024030, vol 100, no 2, July 2019

**Mishra, Akash Kumar\***; Chakraborty, Sumanta and **Sarkar, Sudipta**, "Understanding photon sphere and black hole shadow in dynamically evolving spacetimes", Physical Review D, DOI: 10.1103/PhysRevD.99.104080, vol 99, no 10, May 2019

**Reza, Amit\* et al.**, "Fast evaluation of multidetector consistency for real-time gravitational wave searches", Physical Review D, DOI: 10.1103/PhysRevD.101.022003, vol 101, no 2, Jan 2020

**Roy, Baishali\*** and Acharyya, Ajanta Bhowal, "Synchronization of globally coupled Lozi map using periodically varying parameter", Acta Physica Polonica B, DOI: 10.5506/APhysPolB.50.1671, vol 50, no 10, pp 1671-1679, Oct 2019

Sarkar, Ranadeep; Gopalswamy, Nat and Srivastava, Nandita, "An observationally constrained analytical model for predicting the magnetic field vectors of interplanetary coronal mass ejections at 1 au", The Astrophysical Journal, DOI: 10.3847/1538-4357/ab5fd7, vol 888, no 2, Jan 2020

**Sarkar, Sudipta**, "Black hole thermodynamics: general relativity and beyond", General Relativity and Gravitation, DOI: 10.1007/s10714-019-2545-y, vol 51, no 5, May 2019

**Sengupta, Anand et al.**, "All-sky search for continuous gravitational waves from isolated neutron stars using Advanced LIGO O2 data", Physical Review D, DOI: 10.1103/PhysRevD.100.024004, vol 100, no 2, July 2019

**Sengupta, Anand et al.**, "All-sky search for long-duration gravitational-wave transients in the second Advanced LIGO observing run", Physical Review D, DOI: 10.1103/PhysRevD.99.104033, vol 99, no 10, May 2019

**Sengupta, Anand et al.**, "All-sky search for short gravitational-wave bursts in the second Advanced LIGO and Advanced Virgo run", Physical Review D, DOI: 10.1103/PhysRevD.100.024017, vol 100, no 2, July 2019

**Sengupta, Anand et al.**, "Binary black hole population properties inferred from the first and second observing runs of advanced LIGO and advanced virgo", The Astrophysical Journal Letters, DOI: 10.3847/2041-8213/ab3800, vol 882, no 2, Sep 2019

**Sengupta, Anand et al.**, "Directional limits on persistent gravitational waves using data from Advanced LIGO's first two observing runs", Physical Review D, DOI: 10.1103/PhysRevD.100.062001, vol 100, no 6, Sep 2019

**Sengupta, Anand et al.**, "Erratum: searches for gravitational waves from known pulsars at two harmonics in 2015–2017 LIGO data (2019, ApJ, 879, 10)", The Astrophysical Journal, DOI: 10.3847/1538-4357/ab3231, vol 882, no 1, Sep 2019

**Sengupta, Anand et al.**, "First measurement of the Hubble constant from a dark standard siren using the Dark Energy Survey galaxies and the LIGO/ Virgo binary-black-hole merger GW170814", The Astrophysical Journal, DOI: 10.3847/2041-8213/ab14f1, vol 871, no 1, Apr 2019

**Sengupta, Anand et al.**, "GWTC-1: A gravitational-wave transient catalog of compact binary mergers observed by LIGO and Virgo during the first and second observing runs", Physical Review X, DOI: 10.1103/PhysRevX.9.031040, vol 9, no 3, Sep 2019



**Sengupta, Anand et al.**, “Low-latency gravitational-wave alerts for multimessenger astronomy during the second Advanced LIGO and Virgo observing run”, *The Astrophysical Journal*, DOI: 10.3847/1538-4357/ab0e8f, vol 875, no 2, Apr 2019

**Sengupta, Anand et al.**, “Narrow-band search for gravitational waves from known pulsars using the second LIGO observing run”, *Physical Review D*, DOI: 10.1103/PhysRevD.99.122002, vol 99, no 12, June 2019

**Sengupta, Anand et al.**, “Search for gravitational waves from a long-lived remnant of the binary neutron star merger GW170817”, *The Astrophysical Journal*, DOI: 10.3847/1538-4357/ab0f3d, vol 875, no 2, Apr 2019

**Sengupta, Anand et al.**, “Search for transient gravitational-wave signals associated with magnetar bursts during Advanced LIGO's second observing run”, *The Astrophysical Journal*, DOI: 10.3847/1538-4357/ab0e15, vol 874, no 2, Apr 2019

**Sengupta, Anand et al.**, “Searches for continuous gravitational waves from 15 supernova remnants and fomalhaut b with Advanced LIGO”, *The Astrophysical Journal*, DOI: 10.3847/1538-4357/ab113b, vol 875, no 2, Apr 2019

**Sengupta, Anand et al.**, “Searches for gravitational waves from known pulsars at two harmonics in 2015–2017 LIGO data”, *The Astrophysical Journal*, DOI: 10.3847/1538-4357/ab20cb, vol 879, no 1, June 2019

**Sengupta, Anand et al.**, “Tests of general relativity with GW170817”, *Physical Review Letters*, DOI: 10.1103/PhysRevLett.123.011102, vol 123, no 1, July 2019

**Sengupta, Anand S. et al.**, “ Search for eccentric black hole mergers with advanced LIGO and advanced Virgo during their first and second observing runs”, *The Astrophysical Journal*, DOI: 10.3847/1538-4357/ab3c2d, vol 883, no 2, Oct 2019

**Sengupta, Anand S. et al.**, “ Search for intermediate mass black hole binaries in the first and second observing runs of the advanced LIGO and virgo network”, *Physical Review D*, DOI: 10.1103/PhysRevD.100.064064, vol 100, no 6, Sep 2019

**Sengupta, Anand S. et al.**, “ Search for sub-solar mass ultracompact binaries in advanced LIGO's second observing run”, *Physical Review Letters*, DOI: 10.1103/PhysRevLett.123.161102, vol 123, no 16, Oct 2019

**Sengupta, Anand S. et al.**, “ Search for the isotropic stochastic background using data from Advanced LIGO's second observing run”, *Physical Review D*, DOI: 10.1103/PhysRevD.100.061101, vol 100, no 6, Sep 2019

**Sengupta, Anand S. et al.**, “A guide to LIGO–Virgo detector noise and extraction of transient gravitational-wave signals”, *Classical and Quantum Gravity*, DOI: 10.1088/1361-6382/ab685e, vol 37, no 5, Feb 2020

**Sengupta, Anand S. et al.**, “GW190425: observation of a compact binary coalescence with total mass  $3.4 M_{\odot}$ ”, *The Astrophysical Journal*, DOI: 10.3847/2041-8213/ab75f5, vol 892, no 1, Mar 2020

**Sengupta, Anand S. et al.**, “Model comparison from LIGO–Virgo data on GW170817's binary components and consequences for the merger remnant”, *Classical and Quantum Gravity*, DOI: 10.1088/1361-6382/ab5f7c, vol 37, no 4, Jan 2020

**Sengupta, Anand S. et al.**, “Search for gravitational waves from Scorpius X-1 in the second advanced LIGO observing run with an improved hidden Markov model”, *Physical Review D*, DOI: 10.1103/PhysRevD.100.122002, vol 100, no 12, Dec 2019

**Sengupta, Anand S. et al.**, “Search for gravitational-wave signals associated with Gamma-ray bursts during the second observing run of advanced LIGO and advanced Virgo”, *The Astrophysical Journal*, DOI: 10.3847/1538-4357/ab4b48, vol 886, no 1, Nov 2019

**Sengupta, Anand S. et al.**, “Tests of general relativity with the binary black hole signals from the LIGO–Virgo catalog GWTC-1”, *Physical Review D*, DOI: 10.1103/PhysRevD.100.104036, vol 100, no 10, Nov 2019

**Sharma, Varun\***; Aadhi, A. and Samanta, G. K., “Controlled generation of vortex and vortex dipole from a Gaussian pumped optical parametric oscillator”, *Optics Express*, DOI: 10.1364/OE.27.018123, vol 27, no 13, pp 18123-18130, June 2019

**Sharma, Varun\***; Chaitanya Kumar, S.; Aadhi, A.; Ye, H.; Samanta, G. K. & Ebrahim-Zadeh, M., “Tunable vector-vortex beam optical parametric oscillator”, *Scientific Reports*, DOI: 10.1038/s41598-019-46016-y, vol 9, no 1, July 2019

**Sharma, Varun\***; Samanta, G. K.; Chaitanya Kumar, S.; Singh, R. P. and Ebrahim-Zadeh, M., “Tunable ultraviolet vortex source based on a continuous-wave optical parametric oscillator”, *Optics Letters*, DOI: 10.1364/OL.44.004694, vol 44, no 19, pp 4694-4697, Oct 2019

**Tripathi, Richa\*** and **Reza, Amit\***, “A subset selection based approach to structural reducibility of complex networks”, *Physica A: Statistical Mechanics and its Applications*, DOI: 10.1016/j.physa.2019.123214, vol 540, Oct 2019

**Utsav\***; Khanna, Sakshum; Panelia, Sagar; Ray, Abhijit; Mukhopadhyay, Indrajit and **Banerjee, Rupak**, “Controlled etching of silica nanospheres monolayer for template application: a systematic study”, *Applied Surface Science*, DOI: 10.1016/j.apsusc.2019.144050, Oct 2019

**Venkataramani, Kumar\***; Ganesh, Shashikiran; **Rai, Archita\***; Husárik, Marek; Baliyan, K. S. and Joshi, U.C., “Time and phase resolved optical spectra of potentially hazardous asteroid 2014 JO25”, *The Astronomical Journal*, DOI: 10.3847/1538-3881/ab0f26, vol 157, no 5, Apr 2019

## PAPERS PRESENTED AT CONFERENCE

**Sharma, Varun\***; Kumar, S. Chaitanya; Samanta, G. K. and Ebrahim-Zadeh, M., “Optical vortex generation from an anti-resonant-ring picosecond optical parametric oscillator”, in the 2019 Conference on Lasers and Electro-Optics Europe & European Quantum Electronics Conference (CLEO/Europe-EQEC), Munich, DE, June 23-27, 2019

**Sharma, Varun\***; Kumar, S. Chaitanya; Samanta, G. K. and Ebrahim-Zadeh, M., “Tunable multi-structured-beam optical parametric oscillator”, in the Frontiers in Optics + Laser Science APS/DLS, FIO\_2019, Washington, US, Sep 15-19, 2019

**Tripathi, Richa\***; Mukhopadhyay, Dyutiman; **Singh, Chakresh Kumar\***; Miyapuram, Krishna Prasad and Jolad, Shivakumar, “Characterization of functional brain networks and emotional centers using the complex networks techniques”, in the International Conference on Complex Networks and Their Applications VIII, Lisbon, PT, Dec 10 - 12, 2019

## E-PRINT ARCHIVES

**Aarthy, Esakkiappan\***; **Rai, Archita\***; Ganesh, Shashikiran and Vadawale, Santosh V., “NICSPol: a near infrared polarimeter for the 1.2 m telescope at Mount Abu infrared observatory”, *arXiv, Cornell University Library*, DOI: arXiv:1907.10040, July 2019

**Arya, Richa\***, “Formation of primordial black holes from warm inflation”, *arXiv, Cornell University Library*, DOI: arXiv:1910.05238, Oct 2019

**Bhardwaj, Akanksha\***; Konar, Partha; Mandal, Tanumoy and Sadhukhan, Soumya, “Probing Inert Doublet Model using jet substructure with multivariate analysis”, *arXiv, Cornell University Library*, DOI: arXiv:1905.04195, May 2019

Bhatt, Jitesh R.; **Natwariya, Pravin Kumar\***; and Pandey, Arun Kumar, “Viscosity in cosmic fluids”, *arXiv, Cornell University Library*, DOI:

arXiv:1907.03445, July 2019

Bhatt, Jitesh R.; **Natwariya, Pravin Kumar\***; Nayak, Alekha C. and Pandey, Arun Kumar, “Baryon-Dark matter interaction in presence of magnetic fields in light of EDGES signal”, *arXiv, Cornell University Library*, DOI: arXiv:1905.13486, May 2019

Das, Arindam; Goswami, Srubabati; **K. N., Vishnudath\*** and Nomura, Takaaki, “Constraining a general U(1) inverse seesaw model from vacuum stability, dark matter and collider”, *arXiv, Cornell University Library*, DOI: arXiv:1905.00201, May 2019

Das, Arpan; **Kumar, Deepak\*** and Mishra, Hiranmaya, “Chiral susceptibility in Nambu Jona Lasinio model: a Wigner function approach”, *arXiv, Cornell University Library*, DOI: arXiv:1907.12332, July 2019

Deepthi, K. N.; Goswami, Srubabati; **K. N., Vishnudath\*** and **Poddar, Tanmay Kumar\***, “Implications of the dark LMA solution and fourth Sterile neutrino for neutrino less double beta decay”, *arXiv, Cornell University Library*, DOI: arXiv:1909.09434, Sep 2019

**Lal, Nijil\***; Banerji, Anindya; **Biswas, Ayan\***; Anwar, Ali and Singh, R. P., “Single photon sources with different spatial modes”, *arXiv, Cornell University Library*, DOI: arXiv:1905.01089, May 2019

**Lal, Nijil\***; Shajilal, Biveen; Anwar, Ali; Perumangatt, Chithrabhanu and Singh, R. P. “Observing sub-Poissonian statistics of twisted single photons using oscilloscope”, *arXiv, Cornell University Library*, DOI: arXiv:1907.10513, July 2019

Mazumdar, Arindam ; Mohanty, Subhendra and **Parashari, Priyank\***, “Inflation models in the light of self-interacting sterile neutrinos”, *arXiv, Cornell University Library*, DOI: arXiv:1911.08512, Nov 2019

**Mitra, R.\* et al.**, “Mercury hydroxide as a promising triatomic molecule to probe PT-odd interactions”, *arXiv, Cornell University Library*, DOI: arXiv:1908.07360, Aug 2019

**Mitra, R.\***; Prasanna, V. S. and Sahoo , B. K., “A comparative analysis of non-relativistic and relativistic calculations of electric: dipole moments and polarizabilities of heteronuclear Alkali dimers”, *arXiv, Cornell University Library*, DOI: arXiv:1910.07934, Oct 2019

**Natwariya, Pravin Kumar\*** and Bhatt, Jitesh R., “EDGES signal in presence of magnetic-fields”, *arXiv, Cornell University Library*, DOI: arXiv:2001.00194v1, Jan 2020

Pandey, Arun Kumar; **Natwariya, Pravin Kumar\*** and Bhatt, Jitesh R., “Magnetic fields in a hot dense neutrino plasma and the gravitational waves”, *arXiv, Cornell University Library*, DOI: arXiv:1911.05412, Nov 2019

**Poddar, Tanmay Kumar\***; Mohanty, Subhendra and Jana, Soumya, “Constraints on long range force from perihelion precession of planets in a gauged  $Le - L_{\mu,\tau}$  scenario”, *arXiv, Cornell University Library*, DOI: arXiv:2002.02935, Feb 2020

**Poddar, Tanmay Kumar\***; Mohanty, Subhendra, “Probing angle of birefringence due to long range axion hair from pulsars”, *arXiv, Cornell University Library*, DOI: arXiv:2003.1015, Mar 2020

**Roy, Soumen\***; **Sengupta, Anand S.** and Arun, K. G., “Unveiling the spectrum of inspiralling binary black holes”, *arXiv, Cornell University Library*, DOI: arXiv:1910.04565, Oct 2019

**Singh, Balbeer\*** and Mishra, Hiranmaya, “Heavy quark transport in a viscous semi QGP”, *arXiv, Cornell University Library*, DOI: arXiv:1911.06764, Nov 2019

Suthar, K.; **Bai, Rukmani\***; **Bandyopadhyay, Soumik\***; Pal, Sukla and Angom, D., “Supersolid phase of extended Bose-Hubbard model with artificial gauge field”, *arXiv, Cornell University Library*, DOI: arXiv:1904.12649, Apr 2019

## JOURNAL ARTICLES

**Aarthy, Esakkiappan\***; **Rai, Archita\***; Ganesh, Shashikiran and Vadawale, Santosh V., “NICSPol:

a near-infrared polarimeter for the 1.2-m telescope at Mount Abu infrared observatory", *Journal of Astronomical Telescopes, Instruments, and Systems*, DOI: 10.1117/1.JATIS.5.3.035006, vol 5, no 3, Aug 2019

**Abhishek, Aman\***; Das, Arpan; Mishra, Hiranmaya and Mohapatra, Ranjita K., "Spin polarization and chiral condensation in a  $(2+1)$ -flavor Nambu–Jona-Lasinio model at finite temperature and baryon chemical potential", *Physical Review D*, DOI: 10.1103/PhysRevD.100.114012, vol 100, no 11, Dec 2019

**Bandyopadhyay, Soumik\* et al.**, "Quantum phases of canted dipolar bosons in a two-dimensional square optical lattice", *Physical Review A*, DOI: 10.1103/PhysRevA.100.053623, vol 100, no 5, Nov 2019

**Bhardwaj, Akanksha\***; Konar, Partha; Mandal, Tanumoy and Sadhukhan, Soumya, "Probing the inert doublet model using jet substructure with a multivariate analysis", *Physical Review D*, DOI: 10.1103/PhysRevD.100.055040, vol 100, no 5, Sep 2019

Bhatt, Jitesh R.; **Mishra, Arvind\*** Kumar and Nayak, Alekha C., "Viscous dark matter and 21 cm cosmology", *Physical Review D*, DOI: 10.1103/PhysRevD.100.063539, vol 100, no 6, Sep 2019

**Chauhan, Bhavesh\*** and Mohanty, Subhendra, "Leptoquark solution for both the flavor and ANITA anomalies", *Physical Review D*, DOI: 10.1103/PhysRevD.99.095018, vol 99, no 9, May 2019

Das, Arindam; Goswami, Srubabati; **K. N., Vishnudath\*** and Nomura, Takaaki, "Constraining a general  $U(1)$  inverse seesaw model from vacuum stability, dark matter and collider", *Physical Review D*, DOI: 10.1103/PhysRevD.101.055026, vol 101, no 5, Mar 2020

Das, Arpan; **Kumar, Deepak\*** and Mishra, Hiranmaya, "Chiral susceptibility in Nambu Jona Lasinio model: a Wigner function approach", *Physical Review D*, DOI: 10.1103/PhysRevD.100.094030, vol 100, no 9, Nov 2019

Das, Diganta; **Kindra, Bharti\***; Kumar, Girish and Mahajan, Namit, " $B \rightarrow K^*(1430)\ell^+\ell^-$  distributions at large recoil in the Standard Model and beyond", *Physical Review D*, DOI: 10.1103/PhysRevD.99.093012, vol 99, no 9, May 2019

Goswami, Srubabati; K.N., Vishnudath and Khan, Najimuddin, "Constraining the minimal type-III seesaw model with naturalness, lepton flavor violation, and electroweak vacuum stability", *Physical Review D*, DOI: 10.1103/PhysRevD.99.075012, vol 99, no 7, Apr 2019

**Gupta, Shivangi\***; Naik, Sachindra and Jaisawal, Gaurava K. "Erratum: NuSTAR view of Be/X-ray binary pulsar 2S 1417–624 during 2018 giant outburst", *Monthly Notices of the Royal Astronomical Society*, DOI: 10.1093/mnras/stz3488, vol 491, no 4, pp 5298–5298, Feb 2020

**Gupta, Shivangi\***; Naik, Sachindra and Jaisawal, Gaurava K. "NuSTAR view of Be/X-ray binary pulsar 2S 1417–624 during 2018 giant outburst", *Monthly Notices of the Royal Astronomical Society*, DOI:

10.1093/mnras/stz2795, vol 490, no 2, pp 2458–2466, Dec 2019

K.N., Vishnudath; Choubey, Sandhya and Goswami, Srubabati, "New sensitivity goal for neutrinoless double beta decay experiments", *Physical Review D*, DOI: 10.1103/PhysRevD.99.095038, vol 99, no 9, May 2019

Kuopanportti, Pekko; **Bandyopadhyay, Soumik\***; Roy, Arko and Angom, D., "Splitting of singly and doubly quantized composite vortices in two component Bose-Einstein condensates", *Physical Review A*, DOI: 10.1103/PhysRevA.100.033615, vol 100, no 3, Sep 2019

**Lal, Nijil\***; Banerji, Anindya; **Biswas, Ayan\***; Anwar, Ali and Singh, R. P., "Photon statistics of twisted heralded single photons", *Journal of Modern Optics*, DOI: 10.1080/09500340.2019.1699180, Dec 2019

**Lal, Nijil\***; Shajilal, Biveen; Anwar, Ali; Perumangatt, Chithrabhanu and Singh, R. P., "Observing sub-poissonian statistics of twisted single photons using oscilloscope", *Review of Scientific Instruments*, DOI: 10.1063/1.5109544, vol 90, no 11, Nov 2019

Mitra, R.; Prasanna, V. S. and Sahoo, B. K., "Comparative analysis of nonrelativistic and relativistic calculations of electric dipole moments and polarizabilities of heteronuclear alkali-metal dimers", *Physical Review A*, DOI: 10.1103/PhysRevA.101.012511, vol 101, no 1, Jan 2020

**Oza, Harsh\***; Padhya, Virendra; Ganguly, Akash; Saikranthi, K.; Rao, T. N. and Deshpande, R. D., "Hydrometeorological processes in semi-arid western India: insights from long term isotope record of daily precipitation", *Climate Dynamics*, DOI: 10.1007/s00382-020-05136-2, Jan 2020

Pal, Sukla; **Bai, Rukmani\***; **Bandyopadhyay, Soumik\***; Suthar, K. and Angom, D., "Enhancement of the Bose glass phase in the presence of an artificial gauge field", *Physical Review A*, DOI: 10.1103/PhysRevA.99.053610, vol 99, no 5, May 2019

Pandey, Arun Kumar; **Natwariya, Pravin Kumar\*** and Bhatt, Jitesh R., "Magnetic fields in a hot dense neutrino plasma and the gravitational waves", *Physical Review D*, DOI: 10.1103/PhysRevD.101.023531, vol 101, no 2, Jan 2020

Rindani, Saurabh D. and **Singh, Balbeer\***, "Indirect measurement of triple-Higgs coupling at an electron–positron collider with polarized beams", *International Journal of Modern Physics A*, DOI: 10.1142/S0217751X20500116, vol 35, no 4, Feb 2020

**Rout, Sandeep K.\***; Vadawale, Santosh and Méndez, Mariano, "A retrograde spin of the black hole in MAXI J1659–152", *The Astrophysical Journal*, DOI: 10.3847/2041-8213/ab629e, vol 888, no 2, Jan 2020

Sahu, L. K.; **Tripathi, Nidhi\***; Sheel, Varun and Ojha, N., "The influence of local meteorology and convection on carbon monoxide distribution over Chennai", *Journal of Earth System Science*, DOI: 10.1007/s12040-019-1156-z, vol 128, no 5, May 2019

**Singh, Balbeer\*** and Mishra, Hiranmaya, "Heavy quark transport in a viscous semi-QGP", *Physical Review D*, DOI: 10.1103/PhysRevD.101.054027, vol 101, no 5, Mar 2020

**Singh, Balbeer\***; **Abhishek, Aman\***; Das, Santosh K. and Mishra, Hiranmaya, "Heavy quark diffusion in a Polyakov loop plasma", *Physical Review D*, DOI: 10.1103/PhysRevD.100.114019, vol 100, no 11, Dec 2019

**Singh, Balbeer\***; Bhatt, Jitesh R. and Mishra, Hiranmaya, "Probing vorticity in heavy ion collision with dilepton production", *Physical Review D*, DOI: 10.1103/PhysRevD.100.014016, vol 100, no 1, July 2019

Singha, Pracheta; **Abhishek, Aman\***; Kadam, Guruprasad; Ghosh, Sabyasachi and Mishra, Hiranmaya, "Calculations of shear, bulk viscosities and electrical conductivity in the Polyakov-quark–meson model", *Journal of Physics G: Nuclear and Particle Physics*, DOI: 10.1088/1361-6471/aaf256, vol 46, no 1, 2019

**Tripathi, Nidhi\*** and Sahu, Lokesh Kumar, "Enhancement of biogenic emissions of VOCs in the semi-arid region of India during winter to summer transition period: Role of meteorological conditions", *Atmospheric Chemistry and Physics Discussions*, DOI: 10.5194/acp-2019-335, May 2019

**Tripathi, Nidhi\***; Sahu, L. K.; Singh, Arvind; Yadav, Ravi and Karati, Kusum Komal, "High levels of isoprene in the marine boundary layer of the Arabian sea during spring inter-monsoon: role of phytoplankton blooms", *ACS Earth and Space Chemistry*, DOI: 10.1021/acsearthspacechem.9b00325, vol 4, no 4, pp 583–590, Mar 2020

**Venkataramani, Kumar\***; Ganesh, Shashikiran; **Rai, Archita\***; Husarik, Marek; Baliyan, K. S. and Joshi, U.C., "Time and phase resolved optical spectra of potentially hazardous asteroid 2014 JO25", *The Astronomical Journal*, DOI: 10.3847/1538-3881/ab0f26, vol 157, no 5, Apr 2019

Yadav, Ravi; Sahu, L. K.; Beig, G.; **Tripathi, Nidhi\***; Maji, Sujit and Jaaffrey, S.N.A., "The role of local meteorology on ambient particulate and gaseous species at an urban site of western India", *Urban Climate*, DOI: 10.1016/j.uclim.2019.01.003, vol 28, June 2019

Yadav, Ravi; Sahu, L. K.; **Tripathi, Nidhi\***; Pal, D.; Beig, G. and Jaaffrey, S.N.A., "Investigation of emission characteristics of NMVOCs over urban site of western India", *Environmental Pollution*, DOI: 10.1016/j.envpol.2019.05.089, vol 252, Part-A, pp 245–255, Sep 2019

## PAPERS PRESENTED AT CONFERENCE

**Lavania, Mili\***; **Surana, Neelam\***; **Anand, Ishant\*** and **Mekie, Joycee**, "Read-decoupled radiation hardened RD-DICE SRAM cell for low-power space applications", in *IEEE International Conference on Electron Devices and Solid-State Circuits (EDSSC 2019)*, Xi'an, CN, June 12–14, 2019



# INFRASTRUCTURE & FACILITIES



## CAMPUS DEVELOPMENT

### DECENNIAL SEMINAR ON CAMPUS DEVELOPMENT

To celebrate the 50th meeting of the Building and Works Committee (B&WC) of the Institute, which coincidentally took place in the 10th year of IITGN's existence, the Institute organised a Decennial Seminar on Campus Development on Apr 18, 2019, to reflect on the collaborative journey of development of the IITGN campus. **Ms Usha Batra**, Special Director General (WR), CPWD; **Prof Neelkanth Chhaya**, Former Dean of the Faculty of Architecture, CEPT, Ahmedabad; **Ar Vinod Gupta**, Masterplan Architect of the IITGN campus; **Prof Sudhir Jain**, Director, IITGN; and other stakeholders of the B&WC from CPWD and IITGN graced the occasion.

### CONSTRUCTION UPDATES

Of the major ongoing projects, the open air theatre, the guest house and the director's residence are nearing completion. Two student hostels have been handed over to IITGN while the work is in full swing in the remaining hostel blocks. The studio housing, sports complex, central arcade, and Research Park are also in advanced stages of construction. The work of the new academic parcel is still in its initial stages, while a new work has been recently awarded for the development and protection of the river edge along the scenic drive of the campus and towards the north campus. IITGN has also made efforts to ensure that the construction workers get a clean living environment. Piped natural gas has been provided in the construction workers' housing.

## GREEN CAMPUS

IITGN encourages its community to keep the campus green and clean through various programmes like Foundation Programme for new students, Environment Day and Earth Day, cleaning and plantation drives, etc. The Institute has also constituted a Green Office Committee to guide the community members about the waste management and other cleanliness related issues with the help of a solid waste management consultant.

The organic farm and campus produce committee established by the Institute plans and executes ideas of fruit and vegetable plantations on campus. The committee also organises annual tours of the organic farm, village style lunch for the community members.

The well planned walkways, solar walkways, and bicycle tracks encourage the community members to take a walk or ride a bicycle instead of commuting by vehicles. Additionally, there are electric charging points available in the housing parking to encourage the use of electric vehicles.

Further, IITGN initiated a waste management project in the Basan village in May 2019 under the 'Swaccha hi Seva' campaign and has been organising educational and awareness sessions for villagers about waste management and water management. Regular awareness activities and monitoring by the Institute supported team members have started showing results and the villagers now understand the cause. Many of them use dustbins outside shops to discard dry waste and have also started to give their wet and dry waste separately to waste collection vans.

Some of the infrastructural assets and aspects that continue to contribute towards the green practices include carefully planned architecture, eco-friendly sewage treatment plant, rain water harvesting system, biogas and composting system, waterless urinals in hostels, drip irrigation system and solar photovoltaic installations.

- From Apr 2019 to Mar 2020, the Institute has generated 6,88,263 kWh solar power, which is 9 per cent of the total electric consumption of the campus in that period.
- In 2019, a total of 60 Lakh liters rainwater was harvested in Jal Mandaps, which provided the campus with about 15 days of water supply.
- From Apr 2019 to Mar 2020, 65,700 kg manure was supplied for horticulture which was generated from waste through the biogas plant and compost pits.

## CAMPUS EXPERIENCE

The campus has a range of cafeterias and food outlets, general store, salon, laundry service, music room, gym, sports fields and other recreational facilities that continue to be used by all campus residents. The Institute has operationalised two CNG vehicles that are used for commuting within the campus. The Institute has a medical centre and an ambulance that is available round the clock for an emergency.



## CAMPUS DEVELOPMENT AWARDS

The Institute felicitated the individuals for outstanding contributions towards campus development and management related activities on the 71st Republic Day celebrated on Jan 26, 2020. These are a series of awards that are given each year to individuals who have played an important role in campus growth such as managing infrastructure, ensuring safety and security on campus, streamlining solid waste management, managing social outreach and capacity building programmes for the neighbouring communities, physical fitness & training, developing the organic garden, cleaning and gardening, providing food for the students or guests, photographing campus events, developing programmes for construction workers' children, etc. The following community members received the awards:

- **Mr BV Puvar** (Advisor, Security)
- **Ms Nupur Tandon** (Consultant Green Office, M/s ProWaste)
- **Ms Soumya Harish** (Coordinator, NEEV)
- **Mr Dinesh Parmar** (PTI, IITGN)
- **Mr Nikulkumar Pravinsinh Bihola** (Housekeeping Supervisor at IITGN Housing, through M/s Rajdeep Enterprises)
- **Mr Hardik Patel** (Multiskilled Technician at Biogas plant)
- **Mr Prem Singh Airi** (Cook, IITGN Guesthouse)

## BADA KHANA

Keeping up with its practice of inclusiveness, IITGN organised a Bada Khana (a feast) on Jan 26, 2020, for nearly 5000 people who are directly or indirectly involved in the campus development. The motive behind this event is to celebrate the hard work and dedication of everyone associated with the campus development. All members of the IITGN community including the director, faculty, staff, students, engineers, architects, consultants, construction workers, contractors, project monitoring units, maintenance agencies, well-wishers, and their family members came together for a meal as one large family.





# LABORATORY FACILITIES

## ARCHAEOLOGY LAB

Archaeology is a multi-disciplinary field and the Archaeological Sciences Centre (ASC) was established to conduct scientific investigations into archaeological sites and samples with the lab facilities available at IITGN. At present, the lab facilities and equipment used for archaeological research are: Field emission scanning electron microscope (FESEM), X-Ray diffraction and fluorescence (XRF and XRD), Mass spectrometry (ICP-MS and MALDI-TOF), Ground-penetrating radar (GPR), 3D long-range and short-range laser scanners. ASC has also set up a Ceramic petrology lab to investigate ancient pottery; this consists of a polishing and grinding unit (for making thin sections) and a polarizing microscope.

The ASC is also analysing the samples with the equipment available at other institutions like Physical Research Laboratory (PRL).

## BIOLOGICAL ENGINEERING

The Biological Engineering laboratory facilities at IITGN include the Molecular and Cellular Biology Facility (MCBF), Cell Culture Laboratory (CCF), C Elegans facility, Crystallization Laboratory, Microbiology Laboratory and Proteomics and Peptide Synthesis (PPSF) facility.

**THE MOLECULAR AND CELLULAR BIOLOGY FACILITY (MCBF)** is home to various research activities in biochemistry, molecular biology and cell biology. This laboratory is equipped with shaker incubators, laminar flow hood, sonicator, refrigerated centrifuges, ultracentrifuge, gradient thermocycler, gel documentation system, water purifiers, ultra-low and low-temperature freezers, real-time thermocycler, nano-drop UV-vis spectrophotometer, multimode microplate reader and fast protein liquid chromatography (FPLC) system with various columns. Equipment added this year: Biorad Gel Documentation System, incubator shakers, Ultra Microbalance, Multi-Purpose, Multi-Tissue Ultrasound, Optical Neural Navigation System.

**THE CELL CULTURE LABORATORY (CCF)** has three cell culture labs equipped with biosafety cabinets, CO<sub>2</sub> incubators, centrifuges, automated cell counter, UVcrosslinker, sonicator,

liquid nitrogen cryopreserver, inverted epifluorescence microscope and a multimode microplate reader with alpha-screen assay capabilities for high throughput assay applications.

**THE C ELEGANS FACILITY** is a BSL-1 facility which is equipped with bio-safety cabinet, laminar airflow, CO<sub>2</sub> incubator, freezers, thermo-mixer, autoclave, refrigerated shakers and centrifuges, liquid nitrogen tank, microinjection scope, fluorescent stereo-zoom microscope and basic stereomicroscopes.

**THE PROTEOMICS AND PEPTIDE SYNTHESIS FACILITY** is a mass spectrometry facility dedicated to the characterisation of proteins and peptides. The facility is home to Matrix-Assisted Laser Desorption Ionisation-Time of Flight Mass Spectrometer (MALDI TOF/TOF MS) equipped with software for full mass characterisation, sequencing, PTM identification, comparative proteomics and polymer analysis. Peptide synthesis related equipment and other sample preparation instruments are also available such as analytical-cum-preparative HPLC, fume hoods, microwave-based peptide synthesiser, lyophiliser, manual SPPS set-up, centrifuges, refrigerators and freezers.

**THE CRYSTALLISATION LAB** is equipped with crystallisation incubator and stereo-microscope, and Microbiology Lab is a BSL-2 facility that is equipped with laminar airflow and incubators.

## CHEMICAL ENGINEERING

The Chemical Engineering discipline has state-of-the-art laboratory facilities related to different courses in BTech, MTech and PhD programmes. The UG laboratory is equipped with the following setups: Fluid mechanics experimental set-ups include Reynolds experiment apparatus, Bernoulli's apparatus, friction factor through different pipes, the equivalent length of pipe fittings, orifice and venturimeter, and centrifugal pump characteristics. Unit operations/mass





- + ARCHAEOLOGY
- + BIOLOGICAL ENGINEERING
- + CHEMICAL ENGINEERING
- + CHEMISTRY
- + CIVIL ENGINEERING
- + COGNITIVE SCIENCE
- + EARTH SCIENCES
- + ELECTRICAL ENGINEERING
- + MATERIALS SCIENCE & ENGINEERING
- + MECHANICAL ENGINEERING
- + PHYSICS
- + CENTRAL INSTRUMENTATION FACILITY LAB

transfer operations experimental setups include ball mill, sieve plate/simple distillation, packed bed absorption tower, and solid-liquid/ solid-gas/liquid-gas mass transfer. The experimental setups pertaining to heat transfer operations include heat exchangers of various types such as shell and tube/ double pipe/coiled plate/fluidised/ finned tube, and other experiments such as heat transfer in an agitated vessel, heat transfer in laminar/turbulent flows, and absorptivity of different materials. Chemical reaction engineering setups include batch reactors, plug flow reactors and continuous stirred tank reactors. Process control and dynamics setups include simple pendulum, bulb thermometer, interacting and noninteracting tanks, on-off controllers and PID control. The facility also includes a special characterisation facility such as a UV-vis spectrophotometer, HPLC, GC, particle size analyser, and a computer facility for process simulation laboratory. Simulation tools such as ANSYS, STAR-CCM, AspenTech suite, MATLAB, and COMSOL are also available. Apart from this, the UG lab is engaged in several time-bound projects for the students. The lab has basic infrastructure facilities such as island bench, eyewash station, fume hood, PPE (personal protective equipment), first aid, glassware dryer, toolboxes, computer facility, etc. The discipline also has the following research laboratories actively involved in different areas of research in undergraduate and graduate programmes.

**COLLOIDAL ENGINEERING LABORATORY:** The laboratory is involved in active research in nanoparticle and biomedical applications. The lab has a probe sonicator (Sonics VC 505), a particle size analyser (Beckman Coulter LS 13320) for measurement of particle sizes in the range of 40 nm - 2 micron and particle sizing systems (PSSS) zeta analyser (NICOMP380 ZLS) for estimation of zeta potential of aqueous suspensions of nanoparticles, Martin Christ freeze dryer



(Alpha 1-4 LD plus and Alpha 2-4 LSC, Martin Christ, Germany) high-pressure vessel (operating conditions: 200 bar, and 100o C), particle size analyser (PSS NICOMP Accusizer 780 AD), optical microscope (NIKON TS 100F), high-speed camera (Photron Europe, Model: FASTCAM Mini), in-situ Raman probe (Kaiser USA, Model: RXN-1 785), solution calorimeter (Paar USA, Model: 6755EE), water bath, glass jacketed reactor, clean bench cabinet, computer workstation, etc.

**SOFT MATTER SCIENCE AND ENGINEERING LABORATORY:** The lab is actively doing experimental research in stress and strain-controlled rotational rheometer, optical microscope, instruments for colloidal characterisation. The equipment in the lab are; rheometer, optical microscope, tensiometer, refrigerated and heated circulatory bath (Model: IC301-K3), DLS and Zeta potential measurement instrument (Brookhaven), refrigerated tabletop centrifuge, a computer workstation with servo stabilizer



**DRY PROCESS TECHNOLOGY (DRYPROTECH)**

**LABORATORY:** The state-of-the-art DryProTech Lab has several sophisticated instruments such as surface energy analyser (inverted gas chromatography), simultaneous TG-DSC from Netzsch, FT4 powder rheometer (Freeman Technology), laser diffraction particle size analyser (CILAS) for characterisation in dry and wet mode. In addition, the lab is equipped with V-blender and cone-mill (Prism Pharma), humidity-controlled glove box and Faraday cup with electrostatic charge measurement facility, planetary ball mills, furnace chamber, tube furnaces, catalytic reactor to study the performance of catalyst powders, etc.

**FIRE RESEARCH LABORATORY:** The Laboratory has a cone calorimeter (FFT, UK; Model: iCone mini), which is considered the most significant bench scale instrument in fire testing. This apparatus has been adopted by the International Organisation for Standardisation (ISO 5660-1) for measuring heat release rate (HRR) of materials under incident heat flux. The specimen can be exposed to a maximum of 100 kW/ m<sup>2</sup> heat flux. This device analyses the combustion gases and measures the produced smoke from the test specimen along with its time to ignition and mass-loss rate. The data collected from this bench-scale test can be used for fire modeling, prediction of real-scale fire behavior, pass/fail tests, etc.

**DSIR-IITGN-CRTDH (COMMON RESEARCH & TECHNOLOGY DEVELOPMENT HUB, CRTDH):** The DSIR-IITGN-CRTDH is equipped with ICP Analysis Suite (Perkin Elmer), fluorescence spectrometer, multimode microplate, mass spectrometer (Spectrum Automation and Control) UV-Vis spectrometer (Analytic Jena AG), Model - MAX300-CAT (M/s Extrel CMS, LLC, USA), multi-purpose online gas chromatography, TOC analyser (Analytik Jena AG), HPTLC (CAMAG, Switzerland), basket centrifuge, and refrigerator circulator.

**CHEMISTRY**

The Chemistry discipline's laboratory is equipped with state-of-the-art facilities for a variety of teaching and research activities for undergraduate and postgraduate students. Fume hoods equipped with Schlenk lines cater to a large segment of wet chemical synthetic work. The discipline also has a glovebox for performing chemical reactions under an inert atmosphere. The sophisticated instruments in the institute include 500 MHz NMR, Synapt G2S ESI-Q-ToF mass spectrometer, scanning electron microscope (SEM), atomic force microscope (AFM), MALDI-ToF and a single crystal x-ray diffractometer (SCXRD). The research instruments consisting of cyclic voltammeter, a circular dichroism spectrometer, BET surface area analyser, isothermal titration calorimeter, fast protein liquid chromatography, TGADSc, gas chromatography, FTIR spectrophotometer, UV-vis instruments (with reflectance

accessory and 8-cell Peltier unit), analytical HPLC, spectrofluorimeter with Peltier cooling, polariser and solid-state accessories, are used both for teaching and research. The discipline also has state-of-the-art optical microscopy setup capable of imaging single molecules and nanoparticles in confocal and widefield detection. Instruments such as EMCCD camera and advanced gas chromatography are being procured. These instruments have significantly enhanced the discipline's capabilities in interdisciplinary areas covering chemistry, biology and nanophotonics.

**CIVIL ENGINEERING**

The Civil Engineering discipline has developed laboratories in the areas of structural engineering, geotechnical engineering, water resource engineering and surveying/ GIS.

**STRUCTURAL ENGINEERING LABORATORY:** The Structural Engineering laboratory has the following material testing facilities for UG students: standard consistency, initial/final setting time of cement paste; soundness of cement; bulking of sand; slump test for workability of concrete; compaction factor test; vee bee consistometer test; specific gravity of cement; fineness of cement; fineness modulus, specific gravity, bulk density of fine/coarse aggregates; elongation and flakiness index of coarse aggregates; aggregate impact value; aggregate abrasion value (Los Angeles test); compressive strength 73 of cement cube and mortar cube; compressive strength of concrete cube (as per nominal mix); compressive strength of concrete cube (as per mix design); compressive strength of concrete by ultrasonic pulse velocity test; compressive strength of concrete by rebound hammer; finding of air content in concrete; concrete penetration resistance; penetration depth of bitumen; flash fire point of bitumen; viscosity of tar; efflorescence of brick; water absorption of wood; viscosity of paint; fineness of paint. The laboratory also houses advanced conditioning and testing equipment such as a 300 ton compression testing machine, autoclave, medium-sized furnace and steam chamber.

**GEOTECHNICAL ENGINEERING LABORATORY:** The Geotechnical Engineering laboratory is equipped with high-end research equipment along with basic soil testing. The soil dynamics laboratory is equipped with large (earthquake) and small strain (vibratory) testing. Large strain dynamic loading: cyclic triaxial test setup (0.01Hz-2Hz, stress and strain controlled); cyclic simple shear setup (0.001Hz-5Hz, stress and strain controlled) to evaluate liquefaction, shear modulus & damping ratio of soils up to 10,000 loading cycles. Small strain dynamic loading: bender element system to determine shear modulus under K<sub>0</sub>, stress path, isotropic, UU, CU, CD compression and extension loading conditions. Shear strength facility consists of direct shear setup for cohesionless soils, unconfined compression (UC) test for

cohesive soils, vane shear test for soft soils, and triaxial setup with DAQ and analysis software for all soil types. Pore pressure and volume change measurement facility are available for compression/extension loading (UU, CU, CD tests), K0 consolidation and stress path testing. Large direct shear setup is also available to study the interface behavior of various types of geosynthetics-soil system. Dew point potentiometer is available to determine total suction (0-300 MPa) of fine-grained soils, conventional tensiometer for coarse-grained soils, and filter paper setup for matric suction of all soil types. The facility includes falling and constant head devices for the permeability of fine and coarse-grained soils, four 3-gang oedometer (1D consolidation) setup, proctor setup, CBR for the strength of subgrade soil, sieve shaker, hydrometer, Atterberg limit (LL, PL, SL), swell pressure, specific gravity, relative density, core cutter, sand replacement, muffled furnace (900oC) for organic matter evaluation, optical and digital LCD microscopes. The field testing laboratory has plate load test of 300 kN capacity with motorized anchoring system, standard penetration test (SPT), dynamic cone penetration test (DCPT) with automatic free-fall hammering system, vibratory plate compactor for field compaction, field permeability setup, ground penetration radar (GPR) with mono and bistatic operations facilitated with antennae of frequencies 100MHz, 400MHz with the bistatic operation and 200MHz and 900MHz with the monostatic operation including 20-80 multi frequency antennae, multichannel analysis of surface waves (MASW) setup with the provision of Seismic Refraction/Reflection Survey and Downhole/Crosshole tests. The following equipment were developed in the laboratory: multiaxial cubical device with flexible boundary system along with real-time feedback control system capable of conducting true-triaxial and plane strain testing of soils, constant rate of strain (CRS) consolidation setup, slurry consolidation setup for preparing the remolded specimens of fine-grained soils.

**WATER RESOURCES ENGINEERING LABORATORY:** The Water Resources Engineering laboratory has the following equipment for teaching purposes: a hydraulic bench, pitot tube, Reynold's apparatus, sharp-crested weir (notch), Bernoulli's apparatus, venturimeter and orificemeter, nozzle meter, hydraulic tilting flume, basic hydrology apparatus, free and forced vortex flow apparatus. In addition to the above, a river tray having levee breach facility, an automated hydraulic tilting flume and a piping system to study transients are being used for research purposes. A 3D velocity measurement device, Acoustic Doppler Velocimeter, is used in the flume experiments.

**SURVEY AND GIS LABORATORY:** The Survey and GIS laboratory has been developed with the procurement of various high-end survey equipment and GIS software. Survey equipment includes an advanced integrated surveying kit which consists of kinematic GPS, robotic total station and related field and office software. It provides a common file and user interface to GPS and total stations that complement each other. Integrated surveying provides a platform where GPS techniques can extend a total station survey without the need for extensive traversing. Besides this several total stations, auto level, digital level and handheld GPS are also procured, which will be used in addition to the advanced integrated surveying kit. Multiuser ArcGIS Info kit is procured to carry out GIS analysis in teaching and research activities. ArcGIS package will add the pre-existing image processing software for handling the satellite data.

## COGNITIVE SCIENCE

**BRAIN STIMULATION:** The facilities include a transcranial Magnetic Stimulation (TMS) system for non-invasive stimulation of the brain. The TMS system is coupled with a neuronavigation system which can use the MRI scan of a participant for precise targeting of single or repetitive magnetic pulses to localise brain regions of stimulation. The transcranial Direct Current Stimulation (tDCS) is used for non-invasive stimulation of the brain by using a small direct current across the scalp to modulate brain function. Even extremely low-level currents may simultaneously increase the brain's activity near the anode and decrease the activity near the cathode.

**HIGH-DENSITY ELECTROENCEPHALOGRAPHY (EEG):** A high-density EEG system is available with 128 channel Geodesic sensor nets that are saline-based for quick application to participants. The system is integrated with E-Prime and MATLAB for stimulus presentation. NetStation software is used for recording and processing of the data. The data can also be exported to open-source and popular processing toolboxes such as EEGLab in MATLAB. The software capabilities include AmpServer Pro licence for real-time sampling of raw data up to 8KHz for Brain-Computer Interfacing Applications.

**EYE-TRACKING:** The eye-tracking facility includes a Tobii TX 300 eye-tracker and comes with the Tobii Studio™ eye-tracking software. This is a state-of-the-art eye-tracking facility that can collect data pertaining to saccades, correction saccades, fixation duration, pupil size and blinks. The facility also includes the Tobii toolbox, which supports data collection using MATLAB, thus minimizing the use of Tobii studio for experimental design. Support is also available for E-Prime through extensions from Tobii.

**BEHAVIOURAL CUBICLES:** Currently, there are three behavioural cubicles that house computers that support behavioural data collection. The cubicles are sound-attenuated dark rooms. The computers run Matlab with the Psychophysics toolbox and are used for research on decision-making, attention, agency, etc. They also support E-Prime and other software such as Blitz3D. These labs are also used as private spaces for paper-and-pencil tests and questionnaires that require an environment free from external interference. The Lab features an additional Survey room with multiple participant seating. Two additional cubicles are dedicated for psychophysiological experiments with high refresh rate monitor and adjustable lighting.

**MOTION CAPTURE SYSTEM:** This custom system uses electromagnetic sensors (Ascension trakStar, Northern Digital) to record arm movements made in the horizontal plane. It is interfaced with the motion monitor (Innsport, Chicago, IL) as well as autonomously developed software to provide a virtual reality environment, which enables recording of arm motion data under a variety of different task conditions. This system can be integrated with a range of external devices including EMG, EEG and TMS equipment, which allows quantification as well as disruption of neural activity during arm motor tasks.

**ROBOTIC SYSTEM:** The bilateral Kinarm End-Point robot is a stiff, graspable robot that ensures simultaneous control of both robots for comparison of inter-arm performance and the study of bimanual coordination.



**MULTI SENSORY LAB:** The Lab features research facilities for sound-attenuated testing of Active noise cancellation equipment with surround sound speakers. The lab features a Tactile discrimination system, and a driving simulator that were built completely in-house.

**PSYCHOPHYSIOLOGY LAB:** The wireless physiology-based data acquisition system (Biopac Systems Inc) facilitates real-time data acquisition of physiological signals such as ECG, EMG, EDA and provides excellent signal quality with digital transmission with high resolution of 16 bit and at high speed up to 400 kHz aggregate. The system is compatible with the virtual reality-based programming platform Vizard from WorldViz Inc. The Centre has also acquired a 3D virtual reality display (Oculus Rift).

## EARTH SCIENCES

Earth Science at IITGN envisions holistic understanding of the Earth system through multidisciplinary studies of its major components like lithosphere, hydrosphere, atmosphere and biosphere, and their interactions at different spatio-temporal scales. The Earth Science lab 1 and 2 are home to various multi/interdisciplinary projects activities starting from contaminants fate and transport study combined with hydro-geochemical modelling, nanoparticle synthesis and their further environmental applications, “waste to wealth” technology, wastewater based epidemiology, sustainable utilisation of geotechnical materials, Earth surface processes and tectonic geomorphology. These labs are hubs of several international and national collaborative projects funded by noted funding agencies (such as MHRD, SERB, DST, DST-UKIERI, INSPIRE, MOES, MOEF&CC, KPCSD, GSBTM). The lab also promotes public/private partnership through several tailor-made consultancy projects/services.

**EARTH SCIENCE LAB 1** is equipped with basic and sophisticated research facilities /equipment to conduct elementary and advanced level of water and soil chemistry. It aims to address the environmental maladies and provide a scientific sustainable solution to the society at the grassroots level. This laboratory has several experimental setups to assist research from macromolecular level to ultra-trace level with the help of different instruments such as Ion-Chromatography (IC), Hanna (HI7698194) multiparameter pH/EC/DO probe, High purity milli-Q grade water (18.2 MΩ cm<sup>-1</sup>, Milli-Q® Direct 8) purification system, Laminar flow hood, Desiccators, Biological safety cabinet, Incubator, Refrigerator, Ultracentrifuge, Electric Muffle Furnace, Hot Air Oven, Mechanical mixture, Sonicator, Hot plate, temperature-controlled magnetic stirrer, Autoclave, Potable pH and conductivity meter and Thermoscientific Ion Selective Electrodes. The lab is a true example for multidisciplinary studies, as the Masters and PhD research work is extended to different areas like nanomaterials, sustainable construction material. Also, the consortia of different discipline students make the lab environment very dynamic and productive.

**EARTH SCIENCE LAB 2** includes a sample preparation facility to be analysed in major instruments. This lab aims to prepare dry as well as wet samples. The lab is equipped with rock crushing and grinding facility, sieving, hand-held strong magnetic separation, ultrasonic cleaning and leaching of sand grains and chemical analysis through fully functional fumehoods for normal and HF analysis.

## ELECTRICAL ENGINEERING

The Electrical Engineering discipline currently offers five undergraduate laboratory courses and a basic laboratory course to students of other engineering disciplines. The Electrical Engineering laboratory is equipped with standard test and measurement equipment such as digital storage oscilloscopes, dual-channel arbitrary function generators, digital multimeters, LCR meters, multi output DC regulated power supplies, four-channel digital power scope, eight-channel ScopeCoder, source and measurement units, precision magnetic analyzer, RF spectrum analyzer, AC and DC digital power meters. The research facilities of the discipline are housed in specialised laboratories given below.

**WAFER CHARACTERISATION LABORATORY:** The Wafer Characterisation Laboratory currently houses a 6” wafer probe station, a semiconductor parametric analyser (with 6 SMUs, 1 LCR meter, 1 pulse unit), a dynamic signal analyser, a low-noise current preamplifier, ICCAP modeling software and set-up to measured packaged devices

**NANODC LABORATORY:** The Nano Devices and Circuits (NanoDC) Laboratory is primarily used for analog/digital VLSI design and semiconductor device-related research. The laboratory is equipped with multi-user licenses for Cadence, Mentor Graphics, Synopsys, Xilinx ISE tools. The laboratory is also equipped with a variety of FPGA boards including Basys, Nexus, Spartan, Kintex-7 boards. Apart from this, the lab has other computational resources including an 80-core server, multiple workstations and machines that host the CAD tools

**POWER SYSTEMS AND SMART GRID LABORATORY:** The lab is equipped with a fully digital real-time power engineering simulation platform consists of Opal-RT (OP4508 F11-3+1) real-time digital simulator - OP5600 and customized modular hardware and firmware for hardware-in-the-loop (HIL) and rapid control prototype (RCP) studies in power systems and smart grid related research activities. The lab is also equipped with power systems simulation packages – PSCAD, CYMDIST and GAMS Optimisation tool.

**INTELLIGENT REHABILITATION AND AFFECTIVE COMPUTING SYSTEMS LABORATORY:** The Intelligent Rehabilitation and Affective Computing Systems Laboratory owns five systems for which patent has been applied (i) SmartEye for diagnosis of cognitive impairment, (ii) Insttrole for characterization of one’s gait, (iii) SwasTi which is AI enabled walking stick to prevent freezing of gait (FOG) in people with Parkinson’s disease, and (iv) OnCallDoctor system for noninvasive measurement of various physiological parameters of the human body and (v) PTreadX which is a physiology-sensitive treadmill-assisted VR-based Gait Exercise Platform. In addition, this research lab is equipped with split-belt treadmill platform, remote and wearable eye-trackers, Biopac for physiological data acquisition, haptic devices, EEG data acquisition, Functional Electrical Stimulator.

**COMPUTER VISION LABORATORY:** The lab houses Faro Focus 3DX330 and Einscan Pro+ laser scanners which are used to scan large structures and artifacts, respectively asking with 3D printers. The potential applications include digital heritage, shape analysis, and geometric processing. The lab also has coded aperture cameras fabricated with the help of ISRO-SAC for refocusing and extended depth of field recovery from a single image. The coded aperture cameras

can be used with any DSLR to achieve these tasks. GPU enabled workstations are used to solve computationally intensive problems involving deep learning for computer vision applications.

**PHOTONIC SENSORS LABORATORY:** The Photonic Sensors Laboratory works on applications of near-IR and mid-IR tunable diode laser spectroscopy, plasmonic nano-biosensing, microbial growth studies and biomedical engineering. The lab is equipped with 4312 nm and 4559 nm quantum cascade lasers (Alpes Lasers), a 1392 nm edge-emitting laser diode (Eblana), 1533 nm edge-emitting laser diode (Toptica), a 100 mW, 4.3-4.7  $\mu\text{m}$  quantum cascade laser (Daylight Solutions), a 1650 nm edge-emitting laser diode (Toptica Photonics), VCSELs (1278 nm, 2004 nm, Vertilas), cooled and uncooled photodiodes. It also has a 50 MHz dual-channel, lock-in amplifier (Zurich Instruments), laser diode current and temperature controllers (Thorlabs, SRS), an arbitrary waveform generator (Agilent), a 500 MHz, 1 GS/s digital phosphor oscilloscope (Tektronix), a digital delay and pulse generator, (SRS), and a 3 GHz spectrum analyzer (Agilent).

**COMPUTATIONAL NANOPHOTONICS LABORATORY:** The Computational Nanophotonics Laboratory investigates the fundamental physics of light interaction with nanostructured materials with an eye towards applications in imaging, sensing and energy harvesting. The myriad applications that the lab investigates include high-resolution and very wide field-of-view microscopes, monolithic integrated ultra-miniature cameras, ultra-sensitive non-destructive optical measurement techniques for probing objects and dynamics at the nanoscale, bioinspired sustainable energy harvesting and storage techniques. The lab is equipped with broadband supercontinuum lasers, UVVIS- NIR spectrometers and other tools for characterisation of optical nanostructures and meta-surfaces.

**MULTIMEDIA ANALYSIS AND SECURITY (MANAS) LAB:** The MANAS Lab presently focuses on investigating problems related to the security of multimedia and analysis of remote sensing images. The lab has standard commercial software tools for processing multimedia and develops custom computational systems. The lab is equipped with standard equipment for acquiring and processing multimedia data such as professional three-sensor cameras for capturing images and videos in raw format, high-fidelity pen and touch system for accurate ground truthing and GPUs enabled high-end computational servers that are used to solve computationally expensive inverse problems related to multimedia analysis and security.

**ELECTRICAL MACHINES AND POWER ELECTRONICS LABORATORY:** The lab is equipped to carry out research work on design, control and diagnosis of various electric machines. These include transformers, rotating electric machines and power converters. Design and analysis of novel and existing topologies are carried out using 2D and 3D electromagnetic finite element analysis in Ansys Maxwell. Test-setups for experimentation on various rotating electric machine topologies are available in the lab. These include permanent magnet brushless DC motor, permanent magnet synchronous motor and switched



reluctance motor. Analysis and modeling of conventional topologies are carried out on a unified test bench that consists of a DC machine, an induction machine and a synchronous machine. For machine health diagnosis, precision magnetic analyzer and impulse generator are used for carrying out FRA analysis. Lab facilities also include programmable power supply which is used to generate balanced and unbalanced supply to mimic grid behavior. The lab has basic power converters and their corresponding controllers and drivers fabricated. These converter topologies allow for the implementation of ac-dc, ac-ac, dc-ac, and dc-dc conversion.

**MEDICAL ULTRASOUND ENGINEERING (MUSE) LABORATORY:** The MUSE Laboratory is equipped to conduct research in biomedical ultrasound imaging, therapy, and metrology. The current laboratory inventory includes single-element transducers (1 - 20 MHz center frequency), an ultrasound diathermy system, pulser receivers (1 - 30 MHz) frequency, arbitrary waveform generators (1 - 50 MHz), digital storage and mixed signal Oscilloscopes (200 and 100 MHz bandwidths), a motorized 3-axis positioning system, a preamplifier (30 MHz bandwidth), a programmable power supply, a vacuum degasser, a calibrated tissue-mimicking ultrasound phantom, a dissolved oxygen probe, wet lab equipment (pipettes, a microbalance, hot/stir plates, an overhead stirrer, and temperature-controlled circulation baths), and a custom acoustical attenuation spectroscopy system.

**AUDIO SIGNAL PROCESSING LABORATORY:** The primary focus of this laboratory is on the development and implementation of signal processing algorithms for audio devices including active noise control headphones, hearing aids and hearables. The lab houses equipment including Speedgoat Audio Performance Real-time Target Machine, Neumann KU100 Dummy Head Microphone, GRAS 45CA Ear Protector Test Module in addition to audio interfaces, measurement microphones and studio monitor speakers.

## MATERIALS SCIENCE AND ENGINEERING

Materials Science and Engineering (MSE) added a positive pressure bio-nanomaterials laboratory to its suite of labs. In this class 10,000 lab, experiments are conducted to synthesise, characterise and utilise nanomaterials for various biological applications. The Materials Science and Engineering



Laboratories (Materials Characterisation lab, Metallography lab, Wafer Characterisation lab, and Bionanomaterials lab) are used to impart technical training and teach our undergraduate students. Postgraduate students use these labs for their research activities. The materials characterisation lab now has equipment that can perform surface characterisation (contact angle, AFM, profilometer), thermal characterisation (TGA, DSC, STA), and elemental composition characterisation (AAS, ICP-OES, ICP-MS, and XRF). The instrument capabilities of MSE labs are being upgraded continuously by adding new equipment such as Jominy End Quench test, tube furnace, and UVVis NIR spectroscopy that were added this year. An online instrument access system has been devised to enable online booking of time slots for usage to ensure smooth access to all instruments. The users can find available slots and the respective TA allocated for a particular instrument.

## MECHANICAL ENGINEERING

Mechanical Engineering discipline has done away with physically separate labs for different topics and instead has promoted an integrated approach as regards physical facilities as well as the lab courses. The facilities and equipment are being continuously upgraded. In addition to a few large demo experiments, a very substantial portion of the lab facilities are in the form of components and sensors that promote the learning-by-doing and 'do-it-yourself' (DIY) approach that the discipline promotes in the lab courses, course projects, and extra-curricular projects.

**SOLID AND FLUID MECHANICS:** Aligning with the disciplines' philosophy of DIY, the Solid Mechanics laboratory has procured a suite of structural lab equipment that will allow to actively engage students in understanding the fundamentals in courses like Mechanics of Solids and Mechanics of Deformable Bodies that are currently on offer at the undergraduate level. The procured suite includes: 1) bending moments in a beam, 2) shear force in a beam, 3) deflection of beams & cantilevers, 4) bending stress in a beam, 5) unsymmetrical bending & shear centre, 6) buckling of struts and 7) continuous & indeterminate beam. These rigs can be utilised both for in-class demonstrations as well as for student projects with simple objectives that improve students' understanding. The existing facilities include two MTS universal testing machines of 100 kN and 200 kN capacity, Charpy impact testing machine of 450J capacity (Mts), torsion testing machine (500 Nm) and Rockwell and Vickers hardness testing machines (Zwick Roell), and a fatigue testing machine. Strain gages and associated data acquisition systems are also procured to create hands-on learning experience for students in conducting experiments knowing the subtle links between the hardware and software.

The Fluid Mechanics laboratory has setups for conducting experiments on fluid statics and fluid dynamics. Several common turbomachines such as gear pump, centrifugal pump, pelton wheel along with various flow measuring devices and accessories have also been installed. This year, we have procured additional equipment such as series and parallel centrifugal pumps, hot wire anemometers, surface pressure sensors and digital micromanometers and equipments for visualisation of flow-field to aid in the experiments

**MANUFACTURING:** The Manufacturing laboratory has facilities such as lathes, milling machine, vertical machining center, electric discharge machine, welding, fitting and tin

smithy equipment. It supports courses on manufacturing practices and processes and supports manufacturing activities in integrated design and manufacturing courses. It also serves as a workshop for the fabrication of undergraduate student projects as well as research-related equipment and accessories

**CONTROL SYSTEMS:** The Control Systems Laboratory is shared between several disciplines and covers a range of experiments that help the students understand both the theory and design aspects of the control system and the implementation aspects. Taking advantage of resources in Tinkerers lab and within the discipline, most experiments in control systems have transitioned to DIY approaches wherein the students are able to build experiments of varying complexities and implement various control strategies on them. In addition, few test rigs provide hands-on experience with sensors, data acquisition, calibration, stability analysis, PID controller tuning, modeling from experimental data, root locus-based design to meet performance criteria. The mechanical, electrical, and instrumentation components available for such activities were increased this year to support this approach.

**ENERGY SYSTEMS:** The motivation behind the Renewable Energy laboratory facility is to provide a broad range of experimental experience to the undergraduate and graduate students in the area of renewable energy. This facility comprises high-quality experimental setups in the area of wind, thermal and solar energy. This experimental facility includes thermal energy storage training system, solar concentrator training system, wind energy training system and solar PV training and research system. A fuel-cell test system and a heat transfer experimental module have been procured

**ROBOTICS:** In recent years, robotics has emerged as an important domain from teaching and research perspectives. Robots, essentially, are programmable electro-mechanical systems (machines) that require understanding and execution of a number of different disciplines. The process of development and testing these systems is creating a lot of interest among the students and faculties at IITGN. There are a number of regular and elective courses on offer each year for the students. The student project is an important component of these courses, where the learning-by-doing methodology is adopted. To name a few of these courses:

- Introduction to Robotics - a graduate-level course
- Mechatronics - an elective undergraduate-level course
- Dynamics and control - a mandatory undergraduate level course
- Artificial Intelligence - a graduate-level course
- Machine Learning Course - a graduate-level course

In addition to these regular courses, each year IITGN students organise technical events, such as Amalthea and Ignite, where a large number of competitions are based on robotics driven activities. Each year, a great number of students participate in externally organised robotics competitions, such as IIT Bombay e-Yantra, DRDO Robotics and Unmanned Systems Exposition (DRUSE), etc. A total of 12 teams comprising of IITGN undergraduate and graduate-level students are participating in the Robot making competition "Robofest-Gujarat-2019" under the Gujarat Science, Technology and Innovation (STI) Fund

**DYNAMICS, VIBRATIONS AND WAVES:** The facility currently has state of the art piezoelectric sensors like accelerometers, dynamic force sensors of varying sensitivities and form factors catering to different applications. We have necessary data acquisition hardware and software for post-processing. We have acquired impact hammers that can provide controlled impulses for modal and structural testing. For vibration testing, we have 1.6kN vibration shaker and 200N modal exciter with dedicated controller hardware and software. We have procured a high fidelity stroboscope for conducting experiments related to structural dynamics. In addition, we do have high precision surface plates for mounting experimental setups. We have been using a 2m air-track for conducting experiments and dedicated inertial measurement units (accelerometers, gyros etc.) are available with us. Undergraduate students (ES321: Dynamics and Vibrations, Fall 2019) have completed their term projects. Graduate students (ES648: Nonlinear Dynamics and Vibrations, Spring 2020) have fabricated experiments as part of their course term-project.

## PHYSICS

The Physics laboratory is equipped with state-of-the-art equipment for conducting experiments at the undergraduate and postgraduate levels. The MSc laboratory consists of eleven experiments covering topics in optics, solid-state physics, spectroscopy, modern physics, and electronics. The laboratory has apparatus to study the Hall effect and measurement of energy band gaps in semiconductors, the interaction of external magnetic fields with electron spins through electron-spin resonance, the interaction between the magnetic field and the magnetic dipole moment associated with the orbital angular momentum of electron through Zeeman effect, interferometers like Fabry-Perot and Mach-Zehnder, which are used extensively in measuring the wavelength of light and phase shifts. Experiments with lasers include the study of laser beam profile and understanding the principle of optical waveguides. The laboratory also offers various experiments on FET and MOSFET, which are semiconductor devices used as amplifiers in electronic circuits. Experiments with logic gates enable students to understand the functions of logic circuits as mathematical operators and amplifiers. The lab also has kits to demonstrate principles of amplitude and frequency modulation and demodulation under different conditions. The undergraduate physics laboratory has seven experiments covering topics from modern physics, optics, and acoustics. In order to encourage students to add some of their own ideas to experiments and find their appropriate scientific interpretations, the undergraduate laboratory curriculum has been designed to emphasize critical thinking and enhance the research aptitude of students. Apart from performing regular experiments in the syllabus, students are advised to pursue short-term projects in groups, under the guidance of the course instructor and the associates. Students come up with proposals based on fundamental principles of physics that are significant either from scientific or technological standpoints. The proposals are expected to have sufficient novelty and are reviewed rigorously by the physics faculties before they are pursued. The approved projects are supported partially by the discipline budget. The students make use of the institute workshop, other laboratory facilities, and centers outside the physics discipline. This tinkering lab exercise ends with an open-to-all poster session

at the end of the semester, during which the students get an opportunity to showcase their projects to the entire IITGN community, interact with and demonstrate their findings to other students and faculties.

The research labs in Physics Discipline are involved in state-of-the-art research in the fields of Experimental condensed matter physics and Nanomaterials. More specifically, dedicated research facilities have been established to pursue research activities in the areas of Nanomaterials for energy research, Physics of surfaces and interfaces, Growth and characterisation of nanomaterials and thin films, Graphene-based nanofluidics/desalination techniques, Ion/Proton transport, 2D heterostructures, Active matter, and Colloidal dynamics. The experimental facilities both for research as well as for teaching purposes include Physical Vapor Deposition system, Langmuir-Blodgett trough, Spin coater, high precision weighing balances, Optical microscopes, Source meters, Milli-Q system, sophisticated sample storage and centrifugation facilities and many more. The research and teaching facilities are being constantly upgraded to facilitate and encourage research aptitude in students under the overarching vision of creating a center in the Physics Discipline for interdisciplinary research and learning.

## THE CENTRAL INSTRUMENTATION FACILITY (CIF) AT IITGN

The Central Instrumentation Facility (CIF) has been established with an objective of providing sophisticated characterisation services to the researchers within and outside IITGN. It houses several high-end analytical instruments such as SEM, XRD, AFM, NMR, LC-MS, MALDI-TOF, ICP-MS & ICP-OES, Confocal Microscope and Single Crystal XRD. We have recently added new instruments such as Transmission Electron Microscope (TEM) and Multipurpose XRD with various modules like Powder analysis, Thin Film, SAXS and in-plane scattering for Material Science and Research. The CIF aims to provide a central facility consisting of the latest and advanced analytical Instruments to facilitate multidisciplinary research and to cater to the needs of academic research institutes, universities, and industries for high-end material characterisation.

IITGN regularly conducts the Technical Education Quality Improvement Programme (TEQIP) training programme, where CIF facility staff and students are involved in giving short lectures towards the technical and application aspects of CIF Instrumentation. IITGN CIF is on the National I-STEM Portal to avail the usage of facility by users around the country and internationally.

### IITGN CIF CONNECTION WITH INDUSTRY

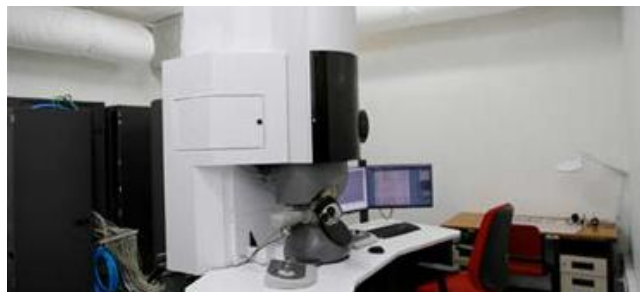
CIF has been catering the needs of industries at various levels. Many pharmaceutical industries like Sun Pharma, Piramal Pharma, Zydus Research centre, Cadila Healthcare, Torrent Pharma, Sud-Chemie are the regular users of our facility. Nearly 30 major industries are the users of the CIF IITGN. Some of the small and medium scale industries use our facility for material characterisation, hardness testing, elemental analysis etc. With the addition of new equipment such as Transmission Electron Microscopy (TEM), Multi-purpose X-Ray Diffractometer, and, Inductively Coupled Plasma (ICP-MS/OES), we are observing growth in the number of users from the industry for their R&D work.



## IITGN CIF CONNECTION WITH ACADEMIC INSTITUTES

CIF has been constantly providing services to the universities, institutes and R&D departments. The major goal has been to build an environment which would lead to major collaborations between academic institutes. Some of the institutes who are the regular users of our CIF are NIPER, IIITRAM, Nirma University, Gujarat University, IIR, CUG, PRL, IPR, CSMCRI, MSU, SP University, PDPU etc. We have been able to connect with a majority of the universities and institutes in the Ahmedabad-Gandhinagar region. Several students from Dental Colleges have carried out sample analysis using Scanning Electron Microscope (SEM). The CIF at IITGN remains open to all the science enthusiasts who never stop exploring science.

## RECENTLY ADDED CIF INSTRUMENTS



### Transmission Electron Microscopy (TEM)

Transmission Electron Microscopy (TEM) was recently installed in IITGN. It is capable of analysing materials at atomic level and can be useful in applications such as Chemical composition and bonding state estimation, 3D Chemical Mapping, and S/TEM tomography.



**Inductively Coupled Plasma (ICP-MS):** This instrument can be used in the heavy metal detection in diverse samples, detection of metals in blood, and detection of metal-based nanoparticles in aqueous solution.



### Multi-purpose X-Ray Diffractometer

The new Multi-purpose X-Ray Diffractometer instrument is a complete automated system with various associated modules such as Powder diffraction, thin film metrology, Small Angle X-ray Scattering (SAXS), in-plane scattering measurements. These features are mainly useful for characterisation of nano-materials, identification of elements and morphological changes in materials.

## MAKER BHAVAN

Maker Bhavan facilitates interdisciplinary student and faculty interactions and integrates learning by doing into curriculum courses. The goal is to turn students into doers, leaders and innovators in whichever field they choose to pursue after graduation. Maker Bhavan will have teamwork areas, a fabrication area, machine shop, creative studio, electronics labs, materials inventory and storage space with the aim of providing the necessary tools, resources, facilities, people, and equipment for both curricular and extracurricular activities. Students and IITGN's extended community, including faculty, staff, alumni, industry partners, and in the long-term, educational practitioners from other institutions around the country will be able to benefit from the space.

## TINKERER'S LAB

IITGN emphasises project based learning both inside and outside the classroom. Hands-on training via course projects, dedicated term project courses, extensive lab work and an emphasis on "learning by doing", enable undergraduates to get their hands dirty, and solve challenging problems of the real world rather than be confined to books, black boards, and powerpoints. Our Tinkerers' Lab encourages students to explore creative ideas beyond the curriculum. Equipped with advanced machines such as a Dual Extrusion 3D Printer, and Laser Cutting and Engraving Machines, the Lab allows students the freedom to experiment, exercise imaginations, build novel systems and convert concepts and creative ideas to actual engineering products. In the last year, the Tinkerer's Lab was upgraded with state-of-the-art new equipment, including a new Laser Cutter, Vinyl Cutter, PCB Maker, and Table-top milling for providing students with more ways to tinker and explore their creative ideas as part of their courses and research projects.

# LIBRARY

The library being an integral part of the academic and research work, continues to expand its collection both in print and digital form. It also designs and delivers innovative services to support teaching, learning, research and other scholarly activities. During the reporting year, the library initiated many important activities and services.

## LIBRARY COLLECTION

**PRINT & AUDIO VISUAL COLLECTION:** The library's rapidly growing collection of research monographs, textbooks, reference books, conference proceedings, CDs, VCDs, DVDs, etc, cover the areas of academic and research interests of the Institute. The following table presents additions to the collection during the year 2019-20.

### Total collection as on Mar 31, 2020

Type of Collection	Additions in 2019-20	Total Collection
Books	1542	29052
Bound volumes	0	635
Children books	101	1373
Hindi books	50	454
CDs	5	970
DVDs	6	607
Technical reports	0	456
Thesis and Dissertations	134	518
<b>Total</b>	<b>1838</b>	<b>34065</b>

**Digital Resources:** The library has been subscribing to several major e-resources both in bibliographic and full text forms. During the year, the library renewed the subscription to over 69 e-resources, out of which 51 were ordered and paid by IITGN Library and the remaining 18 resources were ordered and paid by E-Shodh Sindhu (a national consortium for higher education electronic resources). The Library added a new e-book collection EBSCO Engineering Core.

## CIRCULATION AND INFORMATION SERVICES

The total number of documents issued to our users during

the year was 23,977 as compared to 29,061 last year.

- **Information/Reference Services:** The library has been actively promoting references and information services both in person and over the campus network using the library website and Institute email.
- **Book Exchange: Leave a Book - Take a Book!:** A new initiative named Book exchange: Leave a book - Take a book! started in the previous year continues to attract attention and received wider acceptance among the Institute user community. The library added one more location i.e, Mini-Library. This is in addition to Cafeteria (Lal Minar) and Main Library.
- **Library User Survey:** A yearly online survey seeking feedback on different aspects of library resources and services was conducted during Apr-May 2019 for the outgoing batch of students and a report along with suggestions given by the students was presented to the Senate Library Committee.
- **Mini-Library:** This library is kept open round the clock and has become a popular place among students. Over 26 popular magazines, newspapers, and books donated by IITGN community are made available in this library. This library is kept open 24x7 and all through the year.
- **Resource Sharing:** The library has been taking an active part in availing the benefits of sharing resources with other major libraries (viz. IIMA, IPR, PRL, DA-IICT) in Ahmedabad and Gandhinagar as well with IITs, NITs, IIMs, IISERs, CSIR Libraries and DELNET member libraries in the country. This is done through inter-library loan and document delivery services. The library borrowed 142 books as compared to 118 books in the previous year and loaned 19 books to other libraries as compared to 33 books in the previous year.
- The **Document Delivery Service** is one of the popular services the library offers. The library receives a number of requests from the faculty and students for getting the research papers from other libraries. To meet these requests, the library received 3,967 articles (as compared to 4,261 in the previous year) from other libraries and delivered 216 papers to other libraries.



## MEMBERSHIPS

**ORGANISATIONAL MEMBERSHIP:** Library enrolled as an institutional member of Association for the Advancement of Artificial Intelligence (AAAI) and International Association for Hydro-Environment Engineering and Research (IAHR). Against this annual membership, the library gets access to over 17 journals, e-library and video library and several other benefits for supporting activities on the campus. To avail the benefits of various services, the membership of Development Library Network (DELNET), Ahmedabad Library Network (ADINET) along with eleven other library and professional bodies were renewed.

### E-SHODH SINDHU CONSORTIUM (MHRD) MEMBERSHIP:

The library continues to be a core member of the E-Shodh Sindhu consortium and actively contributed in all meetings held related to subscription to e-resources and had been getting support for accessing 18 core e-resources.

**LIBRARY EXTERNAL MEMBERSHIPS:** The library continues its effort to increase memberships to library resources and services at a nominal fee.

## LIBRARY STAFF ACTIVITIES

### STAFF VISITS TO LIBRARIES

As part of staff development policy of the Institute and build relations with other libraries, the librarian visited some of the important libraries within and outside India viz., Stanford University, San Jose State University, IISER Bhopal & Pune and a staff member visited Raman Research Institute and Indian Institute of Science Libraries.

### STAFF TRAINING

- **Ms Panna Chaudhary** attended a one day workshop @INFLIBNET Center, Gandhinagar, Gujarat on "**Indian Research Information Network System (IRINS): Adaption and promotion**" on Feb 27, 2020.

- **Ms Panna Chaudhary** attended three days conference MANLIBNET 2019: International Conference on **Sustainable Librarianship: Reimagining & Reengineering Libraries** held during Dec 19-21, 2019.
- **Mr Tapas Kumar Das** attended a workshop on "**Data Representation and Organization Techniques**" from July 2-4, 2019, at DRTC Bangalore.

### STAFF PUBLICATIONS

**Chaudhary, Panna;** Gadhi, Geetaben and **Kumbar, T S**, "Trends in research support services in academic & research libraries: a bibliometric study", in *the Management Libraries Network (MANLIBNET) 2019*, Parul University, Vadodara, IN, Dec 19-21, 2019.

### DIGITAL REPOSITORY OF SCHOLARLY PUBLICATIONS:

A 'Digital Repository' (<http://repository.iitgn.ac.in/>) created using an open source DSpace software has been kept up-to-date by adding the metadata with abstracts of most of the scholarly publications generated by the Institute community. During the year, 900 documents have been added (as compared to 670 in the previous year) to the repository.

## LIBRARY SERVICES DURING COVID-19

Library quickly moved to virtual and started offering the following services:

- Provided an off-campus (remote) access to library subscribed e-resources using RemoteXs tool to all users.
- Extended due date of all books issued books till Dec 15, 2020.
- Continued delivering the services such as document delivery, plagiarism check, answering reference queries.
- Compiled a list of resources on COVID 19, E-Textbooks, free resources offered by major publishers.
- Kept open for limited hours during Mar 2020

## INFORMATION SYSTEMS & TECHNOLOGY FACILITY (ISTF)

The Information Systems & Technology Facility (ISTF) continues to provide user-level services to the IITGN community. The ISTF's state-of-art networking infrastructure enables provisioning of information systems and computational facilities to users who live in campus and outside. The ISTF is responsible for managing the following:

- NKN Network, internet and email services, firewall security, communication devices
- Computing facilities, HPC Lab, and
- Computer hardware and software ISTF facilitates VEGA, HPC cluster that enables the users to perform parallel computing and GPU-based computing relevant to their research interests

The new additional compute and GPU nodes (with the latest P100 cards) with the latest hardware have been installed and commissioned. Benchmarking of the newly-augmented nodes has been successful and tested by the IITGN end-users and

researchers. The cluster facilitates a total of 640 CPU cores totaling to close to 21 teraflops. The usage of the cluster is almost 100% and the institute is planning for the next Phase - III of HPC cluster. The ISTF also houses video conference rooms via the National Knowledge Network (NKN) line. The infrastructure of the rooms is also be equipped to facilitate virtual classes.

The ISTF constantly undertakes various in-house projects to enhance their skill sets and stay up-to-date with recent technology. The team has successfully completed the following projects:

- deployed new ISTF service desk for tracking and resolution of tickets raised by the stakeholders for new ISTF ticketing system
- ISTF has implemented daily bandwidth quota limitation for all students
- deployment of central NTP server



## MEDICAL CENTRE

Four qualified doctors are available in the campus from 9:30 am to 7:30 pm on working days. Doctors are available for OPD treatment on weekends. An experienced gynaecologist and pediatrician are also available twice a week for OPD. We have empanelled several hospitals in Gandhinagar and Ahmedabad for hospitalisation of staff, students and faculty. Hospitalisation of all students is covered under a medical insurance policy. A team of two trained male nurses and an assistant nurse is available on a full-time basis to provide first aid and for routine medical services such as checking temperature, blood pressure, blood sugar, oxygen level etc. Other facilities include ECG machine, pulse oximeter, oxygen concentrator, nebulizer, glucometer, otoscope, suction machine, eye check-up facility and 24-hour vehicle facility for patients in case of emergency. The institute has an in-house pharmacy that stocks medicines that are commonly used. A blood collection facility is also available for pathology tests. Four beds are provided for indoor patients. We have a fully equipped physiotherapy centre for staff, students and faculties. Vaccination for children will also be available in the near future.

### FACILITIES FOR COVID CARE

Due to the current global pandemic scenario, the Institute arranged additional facilities in the medical centre for COVID patients. It includes quarantine and isolation rooms with all facilities, O2 concentration machines, O2 cylinders, monitors, pulse oximeters for all patients, inhouse laboratory collection centre, and 24x7 ambulance facility. Trained nurses, assistant nurses and housekeeping staff for COVID patients are also appointed. Sanitisation facility for the campus has been arranged.

## PHYSIOTHERAPY CENTRE

A qualified physiotherapist is available at the physiotherapy centre for two hours from 5:30 pm - 7:30 pm every day except Sunday. The physiotherapy department is well equipped with modern equipment such as electrotherapy machines like shortwave diathermy (SWD), TENS (trans-electrical nerve stimulator), IFT (interferential therapy), paraffin wax bath (PWB), muscle stimulator machine, cervical and lumbar traction machine, ultrasound machine, hot & cold packs and Laser Machine. The exercise therapy section is equipped with shoulder wheel, wall ladder for frozen shoulder exercises, therabands for strengthening muscles, rope and pulley for shoulder exercise, springs, weights cuffs (sand bags), and physio ball, quadricep table, full dumbbells set, tube theraband exerciser, wooden rocker balance board, wrist supinator-pronator, ankle board with spring, bolsters set, static exercise bicycle, vibrator to improve lower limb blood circulation, handy vibrator. The centre also offers physiotherapy for orthopaedic conditions such as arthritis, tennis elbow and for neurological conditions like sciatica, cervical spondylosis, post-operative and post-fracture physiotherapy management, treatment for sports-related injuries, spinal rehabilitation in postural problems like backache, cervical spondylosis. The patients are also advised about basic exercises and general guidelines for weight management and general well-being.

## DAY CARE CENTRE

The IIT Gandhinagar Day Care Centre was started in Mar 2014 as a community initiative to provide a safe and nurturing environment to the children from IITGN families. Located in one of the housing blocks close to community residences, the child-friendly facility is nothing less than their own beautiful home. A unique feature of the daycare is that unlike most institutes that outsource the job of caring for the children, the daycare centre takes pride in meeting the needs of the children in-house. Passionate community members who have had some prior experience in child care help with designing the curriculum and facilitating the day-to-day operations. We are proud to have well trained and caring staff members who provide feedback based childcare. Our caretakers undergo rigorous orientation and training to understand the psychological needs of children. The centre is guided by the simple aim of helping in the development of children by engaging them in activities that they enjoy the most. The centre offers unique, non-traditional developmental programmes for the children to learn through music, dance, play and exploration. Some of the flagship programmes are:

- **MORNING PROGRAMME:** From July 2018, the Day Care Centre started a new morning programme where children from the community could enroll just like they would in any pre-school. The programme has been very well received by parents and kids alike as it is a fine mélange of traditional teaching methods and non-conventional activities that suit every age group. Our facility was further expanded during this year. We now have a completely separate apartment for our infants and young toddlers, thus ensuring that every child gets enough room to move around safely and freely during the activity times
- **KIDS SUPPORTED AGRICULTURE (KSA):** This is the best loved programme to date. It lets the kids get their hands dirty and grow their own veggies. This year introduced this farming experience to our infants and toddlers as well. They truly enjoyed sowing and plucking, *methi*, spinach, tomatoes, coriander and carrots. Routine activities were designed keeping the sensory world of children in mind (sight, touch, taste, smell and sound).
- **COOKING SESSIONS:** This is a very important activity in a child's day when our expert chefs put together sandwiches, make laddoos and decorate cupcakes for dessert.
- **OTHER EVENTS:** Besides the above, the centre also hosts pajama parties, movie times, parents date nights, mango and amla picking sessions, festival celebrations and sports day events.

The daily routine in the daycare comprises music and movement activities, art and craft sessions, basics of yoga and gymnastics, story time, classroom teaching through play and exploration and also sand and water play sessions. Together these activities hone the children's concentration, imagination, problem solving and motor skills. In summary, the unique curriculum focuses on holistic development to bring out the best in the little children and thereby promote their progress. These activities thus function as vital tools for the development of key physical, social and intellectual skills in the children.



# STUDENT AFFAIRS





# STUDENTS' AWARDS AND RECOGNITIONS

- **Deepika Soni**, a BTech student in Electrical Engineering, has been awarded the prestigious Cargill Global Scholarship for the year 2019-20. Every year, only 10 2nd year undergraduate students from all over India make it to the Program.
- **Renika Baruah**, a PhD student in Mechanical Engineering, received the Best Poster Award at the Hydrogen Days 2019 conference held at Prague, Czech Republic. Her work has also been selected for the best contribution award at the conference.
- **Abhijeet Ojha**, a PhD student in Biological Engineering, received the Outstanding Graduate Teaching Fellow Award as a recognition for the exceptional performance of PhD students at IITGN as GTFs.
- **Rahul Kumar**, a PhD student in Civil Engineering, received the Outstanding Student Poster and PICO (OSPP) Award at the European Geophysical Union General Assembly, 2019 held at Vienna.
- **Rajdeep Ghosh**, a MTech student in Civil Engineering, has received the Honorable Mention Paper Award at the 13th North American Masonry Conference (NAMC) held in the Salt Lake City, USA.
- **Dr Bibekananda Maji**, a Postdoctoral Fellow in Mathematics Discipline, IITGN, received the Best Paper Presentation Award at the 'International Conference on Number Theory and Graph Theory' held at the University of Mysore from June 27-29, 2019.
- **Mandar Bhoir**, a PhD student in the discipline of Electrical Engineering, IITGN, received the Outstanding Graduate Teaching Fellow Award as a recognition for the exceptional performance of PhD students at IITGN as GTFs.
- **Chandan Kumar Jha**, a PhD student in the discipline of Electrical Engineering, IITGN, won the first prize (Individual Category) in the "Dare to Dream DRDO Innovation Contest", in the challenge area of 'Wearable Communication Technologies for Special Operations Soldiers' for his project on a high-sensitivity optical contact microphone.
- **Anurag Gumaste**, former graduate student in Material Science and Engineering, IITGN, received the Silver Medal in ASM India 2019.
- **Annie Royson**, an alumna of IITGN, and **Vasundhara Krishnan**, a 2nd year MA student in society and culture, received the prestigious 'Sahapedia Fellowship' to carry out important work in documenting the country's rich cultural heritage.
- **Sharad Joshi**, a PhD student in Electrical Engineering, IITGN, received the Best Paper Award at the Applied Research Competition (ARC), 6th Cyber Security Awareness Worldwide (CSAW) 2019 held at IIT Kanpur.
- **Amit Kumar Singh**, a PhD scholar in Material Science and Engineering, IITGN, won first prize in the Metallography Contest, in the SEM category at the NMD-ATM 2019 held on Nov 16 at Kovalam (Kerala).
- A team from IITGN comprising **Utkarsh Gangwal**, third year UG student in Civil Engineering, IITGN; **Deepak Kamboj**, SRIP Intern 2019; **Prof Mayank Singh**, IITGN; and **Prof Udit Bhatia**, IITGN, won the best poster award at the Society of Risk Analysis, Washington DC.
- **Diptiben Patel**, a PhD student in Electrical Engineering, IITGN, won the Best Doctoral Symposium Paper Award for her PhD thesis work, at the NCVPRIPG 2019, held at Hubli, Karnataka during Dec 22-24.
- A team from IITGN comprising **Gagan Kanojia**, **Sudhakar Kumawat**, PhD students, and **Prof Shanmuganathan Raman**, have won the Best Oral Paper Runner-up Award, at the NCVPRIPG 2019, held at Hubli, Karnataka during Dec 22-24.
- One of the incubated startups at IITGN, **MiCoB Pvt Ltd**, founded by a group of PhD students of IITGN, has won a prize of Rs 2 Lakh in the Student Open Innovation Challenge program conducted by the Education Department of Government of Gujarat.
- Team NutriMonster, led by **Kshitij Gajpure**, a student at IITGN, won the Best of Vuforia track in MIT Reality Hack on Jan 16-20, at MIT, USA.
- **Dependu Dolui**, a PhD Scholar in Chemistry, IITGN, received the Best Oral Presentation and Young Scholar Award at the International Conference on Electrochemistry for Industry, Health, and Environment (EIHE 2020), at BARC, Mumbai, during Jan 21-25, 2020.
- **Monika Yadav**, a 2nd Year MSc student in Chemistry, IITGN, received one of the poster awards in the category of Photochemistry at the 15th Trombay Symposium on Radiation and Photochemistry, at BARC, Mumbai, during Jan 4-9, 2020.
- **Shubham Sharma**, a PhD Scholar in Biological Engineering, IITGN, received the Best Poster Award (3rd position) at the 20th International Symposium on Chromaffin Cell Biology (ISCCB-20), at IIT Madras, during Jan 23-26, 2020.
- **Rahul Dahiwadkar**, a PhD student in Chemistry, IITGN, received one of the poster awards and secured 2nd position at the National Conference on Synthetic Biology, at Indrasheel University, Mehsana, Gujarat, during Jan 24-25, 2020.
- **Mahesh Kutwal**, a PhD student in Chemistry, IITGN, won the ACS Best Poster Award at the International Conference on Recent Trends in Catalysis RTC 2020, at National Institute of Technology Calicut (NITC), Kerala, during Feb 26-29, 2020.
- **Srimadhavi R** and **Dependu Dolui**, PhD Scholars in Chemistry, IITGN, have been selected to attend the prestigious Lindau Nobel Laureate Meeting to be held at Lindau, Germany, from June 28 to July 3, 2020.
- **Falak Vats**, a PhD Scholar in Civil Engineering, IITGN, won the Most Innovative Idea Award in the postgraduate category at Prastuti 2020, an annual Techno-Management presentation contest held in Delhi on Mar 7, 2020.
- **Mohit Ganeriwala**, a PhD student in Electrical Engineering, IITGN, received the Outstanding Graduate Teaching Fellow Award for Semester I, 2019-20, for his excellent contributions to the course EE 644: Physics of Transistors.



# PLACEMENTS AND INTERNSHIPS 2019

## CAMPUS PLACEMENTS 2019

The following organisations offered campus placements for the outgoing undergraduate batch in 2019.

### NAMES OF THE ORGANISATIONS:

Aarti Industries Limited	MCX India
Addverb Technologies	MediaTek
AECOM	Nutanix
All On Block Corporation	Pandit Deendayal Petroleum University
Amul	Parul University
Barclays	Publicis Sapient
Bombardier Transportation India Private Limited	Raam Group
CACTUS Communications	S P Textile Processors Private Limited
Cadila Pharmaceuticals	SiliConch Systems
Capgemini	SIM Advisory
Cognizant	SKAPS Industries
eClerx Services Limited	Strand Life Sciences
Euler Systems	Tata Consultancy Services - Ninja Unit
Goldman Sachs	Tata Consultancy Services ( Research and Innovation Group )
HATCH	Tata Motors Limited
HLE Engineers Private Limited	TechFab India
HSBC Technology India	Testbook Edu Solutions Private Limited
Inspired Automation Future Technologies	Texas Instruments
Indian Space Research Organisation	Timetooth Technologies Private Limited
Indian Oil Corporation Limited	Tomia Global
JSW Group	Trading Technologies India Private Limited
JW Consultants LLP	Tredence Analytics Solutions Private Limited
L&T Construction	VE Commercial Vehicles Limited
Larsen & Toubro Limited	Walter P Moore
Mahindra & Mahindra Limited	Xylem
Marvell Technology Group	ZF Wind Power Coimbatore Private Limited
Matter Motor Works	ZS Associates Private Limited

## SUMMER INTERNSHIPS 2019

IITGN considers internships as a valuable mechanism through which students gain exposure to real-world problems and cutting-edge research by working in leading academic institutions and industries. Students are encouraged to take up internships that suit their exploratory instincts and future plans.

A total of 74 students went abroad for internships this year in the following companies/institutions:

### LIST OF FOREIGN INSTITUTIONS

Company/University	Name	Discipline
Ascendum Solutions, USA	Kaushal R Modi	Mechanical Engineering
Auckland University of Technology, New Zealand	Meet Panchal	Computer Science and Engineering
	Animesh Rastogi	Civil Engineering
	Atishay Jain	Computer Science and Engineering
	S Deepak Narayanan	Computer Science and Engineering
	S Vinu Sankar	Computer Science and Engineering
California Institute of Technology, USA	Shubhranshu Singh	Electrical Engineering
	Kadam Omkar Devidas	Mechanical Engineering
	Rathi Aditya Manish	Mechanical Engineering
	Anushikha	Materials Science and Engineering
	Shreyas Sreeram	Materials Science and Engineering
Carleton University, Canada (Mitacs Globalink Research Internship)	Amit Kumar Singh Yadav	Electrical Engineering

Company/University	Name	Discipline
Carnegie Mellon University, USA	Ribhu Vajpeyi	Electrical Engineering
Clemson University, USA	Rohan Gupta	Chemical Engineering
	Yash Makwana	Chemical Engineering
	Rahul Rajeev	Materials Science and Engineering
Colorado State University, USA	Neha Meena	Materials Science and Engineering
Diverta Inc, Japan	Chitipolu Gowtham	Mechanical Engineering
Eidgenössische Technische Hochschule Zürich, Switzerland	Pranjali Jain	Computer Science and Engineering
Institut Curie, France	Debarpan Ghosh	Biological Engineering
Institut National de Recherche en Informatique et en Automatique, France	Dutta Ritik	Computer Science and Engineering
Japan Advanced Institute of Science and Technology, Japan	Spand Bharat Mehta	Chemical Engineering
King Abdullah University of Science and Technology, Saudi Arabia	Abhishek Dubey	Chemical Engineering
Nanyang Technological University (NTU-India Connect Research Internship)	Suyash Patidar	Mechanical Engineering
	Ankit Jaiswal	Materials Science and Engineering
National Chung Hsing University, Taiwan	Singh Shivam	Chemical Engineering
Purdue University, USA	Arra Sriya	Civil Engineering
	Siddharth Krishnan	Electrical Engineering
Rice University, US (Khorana Scholar Programme) (July 2019 to Sep 2019)	Rupsha Mukherjee	Biological Engineering
RWTH Aachen University (DAAD - KOSPIE Programme) (Sep 2019 to Mar 2020)	Chinmaya Panda	Biological Engineering
Seoul National University, South Korea	Joshi Kavan	Materials Science and Engineering
Texas A&M University, USA	Akhil Anil Rajput	Civil Engineering
	Shreyas Singh	Computer Science and Engineering
	Tandale Atharva Madhukar	Mechanical Engineering
	V V S Akhil	Materials Science and Engineering
Tonichi Insatsu, Japan	Ayush Garg	Computer Science and Engineering
University at Buffalo, USA	Akshay Mittal	Civil Engineering
	Chinmay Girish Kulkarni	Civil Engineering
	Wani Tejas Sakahari	Civil Engineering
	Bedmutha Manas Satish	Electrical Engineering
	Kratika Bhagtani	Electrical Engineering
	Amit Jangid	Mechanical Engineering
	Deshpande Shubham Gopal	Mechanical Engineering
	Rahil Sanwla	Mechanical Engineering
University of Alberta, Canada	C R Greeshma	Materials Science and Engineering
University of Nebraska, Lincoln, USA	Saran Aadhar	Civil Engineering
University of Ottawa _ Shastri Research Student Fellowship (SRSF)	Raunak Swarnkar	Cognitive Science
	Ojasvi Verma	Chemistry



Company/University	Name	Discipline
University of Saskatchewan, Canada	Ajay Bhardwaj	Civil Engineering
	Mansi Porwal	Chemistry
	Pratik Kayal	Computer Science and Engineering
	Deshpande Ajit Umesh	Electrical Engineering
	Sumit Walia	Electrical Engineering
	Prakash R	Electrical Engineering
	Perna Khobragade	Humanities and Social Science
	Punya Suri	Humanities and Social Science
	Kuntal Banerjee	Mathematics
	Vaibhava Srivastava	Mathematics
	Manvendra Singh Chauhan	Mechanical Engineering
	Tanisha Aggrawal	Materials Science and Engineering
	Adesh Kushwaha	Physics
	Md Sahnawaz Alam	Physics
University of Texas at Dallas, USA	Girish Chandar G	Electrical Engineering
University of Utah, USA	Gohil Varun	Computer Science and Engineering
University of Washington, USA	Bharg Mehta	Mechanical Engineering
	Dashpute Chinmay Laxmikant	Mechanical Engineering
University of Washington, USA	Karthik Subramanya Karvaje	Mechanical Engineering
	Sakhalikar Pushpakraj Shyamappa	Mechanical Engineering
	Surve Sushrut Sudarshan	Mechanical Engineering
	Ayan Rakshit	Materials Science and Engineering
University of Waterloo _ Shastri Research Student Fellowship (SRSF)	Samruddhi Damle	Cognitive Science
Washington University St Louis, USA	Sahil Jain	Civil Engineering
	Ritik Jain	Chemical Engineering
	Ashar Akhil Parag	Mechanical Engineering

## INDIAN ORGANISATIONS

Another set of students (191 in the summer and 9 in the winter) did their internships in various leading industries and institutions within India:

### Domestic Internships (Summer)

Company/University	Name	Discipline
ABB India Limited	Patel Ajikumar Dahyalal	Electrical Engineering
Addverb Technologies Private Limited	Chauhan Jainish Nileshkumar	Electrical Engineering
	Putsala Anirudh	Mechanical Engineering
Ashoka University	Nisarg Ujjainkar	Mechanical Engineering
Barclays	Nitiksha	Computer Science and Engineering
	Smeet Vora	Computer Science and Engineering
Bhabha Atomic Research Centre	Karra Uma Naga Srikar	Materials Science and Engineering

Company/University	Name	Discipline
Bhabha Atomic Research Centre	Kaushik Kumar Bhaiya	Materials Science and Engineering
	Krutarth Hemant Khot	Materials Science and Engineering
	Mewada Rohan	Materials Science and Engineering
BrandDut	Parmar Monarch	Computer Science and Engineering
Capgemini Technology Services India Limited	Rendla Aditya	Computer Science and Engineering
	Kanishk Kalra	Computer Science and Engineering
	Kavita Vaishnav	Computer Science and Engineering
	Nidhin Harital	Computer Science and Engineering
	Shah Rushil	Computer Science and Engineering
	Mithavkar Ojas Shashikant	Electrical Engineering
	Deepika Soni	Electrical Engineering
	Kaoshik Ronak Nitin	Electrical Engineering
	Narni Vishnu Karthikeya	Electrical Engineering
	Patel Urvishkumar Jayrambhai	Electrical Engineering
Centre for Fire, Explosives and Environment Safety - DRDO	Vedanta Krishna Bhutani	Electrical Engineering
	Vyom Mudgal	Chemical Engineering
CSIR - National Institute for Interdisciplinary Science and Technology	Yasham Amar Mundada	Materials Science and Engineering
	B Dhyanes	Materials Science and Engineering
Deepen AI	Neena Tatu	Materials Science and Engineering
	Anup Ravindra Aglawe	Computer Science and Engineering
Defence Laboratory Jodhpur DRDO	Balani Mohit	Electrical Engineering
	Ram Bhagwan Prajapat	Computer Science and Engineering
Defence Research Laboratory - DRDO	Gaurav Sonkusle	Chemical Engineering
	Godina Ganga Hrishikesh	Materials Science and Engineering
	Shubham Gond	Materials Science and Engineering
Detect Technologies	Tanmaey Gupta	Electrical Engineering
eInfochips India Private Limited	Ankush Chauhan	Computer Science and Engineering
	Rohit Shantaram Patil	Computer Science and Engineering
	Chandan Maji	Computer Science and Engineering
Ford India Private Limited	Ukey Vishal Hemraj	Mechanical Engineering
Fractal Analytics Private Limited	Mridul Sharma	Computer Science and Engineering
Franklin Templeton Investments	Parimi Siva Krishna Sarma	Computer Science and Engineering
Gas Turbine Research Establishment - DRDO	Gameti Nirav	Chemical Engineering
	Samyak Jain	Chemical Engineering
	Ashish Kumar Jha	Mechanical Engineering
	Surabhi Ashutosh Torne	Materials Science and Engineering
Geocarte Radar Technology Private.Limited	Suraj Kumar Meena	Electrical Engineering
	Anuj Yadav	Materials Science and Engineering
Gujarat Cooperative Milk Marketing Federation Limited - Anand Milk Union Limited	Pranav Peepre	Civil Engineering
	Manjot Singh	Chemical Engineering
	Sourabh Saini	Chemical Engineering

Company/University	Name	Discipline
Gujarat Cooperative Milk Marketing Federation Limited - Anand Milk Union Limited	Shubham Ashok Kalgunde	Electrical Engineering
	Vasu Bhalothia	Electrical Engineering
	Kshitij Sendre	Mechanical Engineering
	Mukul Lawas	Mechanical Engineering
	Vikas Dudi	Materials Science and Engineering
Gujarat State Petroleum Corporation Limited	Amar Baroliya	Civil Engineering
	Agrawal Parth Sunilkumar	Mechanical Engineering
	Anirudha Pradeepkumar Soni	Mechanical Engineering
	Sabbi Pavan Kumar Chakri	Mechanical Engineering
Gujarat Urja Vikas Nigam Limited	Chenna Kesava Tirunagari	Computer Science and Engineering
	Saumitra Sharma	Computer Science and Engineering
Hindustan Aeronautics Limited	Ayush Kumar Gupta	Mechanical Engineering
Hindustan Petroleum Corporation Limited	Shah Dhruvin	Mechanical Engineering
	Tushar Choudhary	Mechanical Engineering
	Vandit Goyal	Mechanical Engineering
	Vatsal Ketankumar Joshi	Mechanical Engineering
IAFT	Rahul Challa	Computer Science and Engineering
IIIT Hyderabad	Abhinav Narayan Harish	Electrical Engineering
Indian Academy of Science	Solanki Soham Pratik	Chemical Engineering
	Ankush Mishra	Mechanical Engineering
Indian Institute of Management Ahmedabad	Jitesh Mittal	Civil Engineering
Indian Institute of Science Bangalore	Jain Harshil Rakesh	Computer Science and Engineering
	Kishen N Gowda	Computer Science and Engineering
	Shuchi Dharendra Sanandiya	Materials Science and Engineering
Indian Institute of Space Science and Technology Kerala	Gupta Sagar Rajeev	Electrical Engineering
Indian Institute of Space Science and Technology Trivandrum	Mulastham Amitha Rani	Materials Science and Engineering
Indian Institute of Technology Delhi	Anubhav Jain	Computer Science and Engineering
Indian Institute of Technology Gandhinagar	Chintakayala Venu Gopal	Civil Engineering
	Gaurav Kumar	Civil Engineering
	Harsh Sarju Shah	Civil Engineering
	Sumit Kumar	Civil Engineering
	Utkarsh Sandeep Gangwal	Civil Engineering
	Arun Shakya	Chemical Engineering
	Vinod Kumar	Chemical Engineering
	Anshuman Yadav	Computer Science and Engineering
	Kakumani Prudhvi Raj	Computer Science and Engineering
	Rohan Prashant Patil	Computer Science and Engineering



Company/University	Name	Discipline
Indian Institute of Technology Gandhinagar	Onteddu Rama Krishna Reddy	Electrical Engineering
	Uttharapally Sai Chandra	Electrical Engineering
	Nayan Chaudhary	Electrical Engineering
	Pardeshi Shweta Rajesh	Electrical Engineering
	Parth Shinde	Mechanical Engineering
	Yash Nilkanth Dhake	Mechanical Engineering
Indian Institute of Technology Guwahati	Dip Nilim Das	Mechanical Engineering
Indian Institute of Technology Madras	Kunwar Shivam Pratap	Materials Science and Engineering
Infostretch Corporation (India) Private Limited	Abhavya Chandra	Chemical Engineering
	Kukunuri Sai Venkata Ratna Rithwik	Computer Science and Engineering
InMobi	Ayush Garg	Computer Science and Engineering
	P Jayakrishna Sahit	Computer Science and Engineering
Institute of Nano Science and Technology	Dharmendra Sablaniya	Materials Science and Engineering
Invention Factory - IITGN	Priolkar Neha Satyendra	Electrical Engineering
	Shah Jainam	Mechanical Engineering
iView Labs Private Limited	Buditi Prudhvi	Chemical Engineering
JK Tyre & Industries Limited	Jai Parmar	Electrical Engineering
JSW	Kevin Patel	Mechanical Engineering
	Mudit Jangid	Mechanical Engineering
JVS Flow Control Private Limited	Akshat Bansal	Mechanical Engineering
KHS Machinery Private Limited	Kamle Mayank Shrikant	Chemical Engineering
	Lakhan Agrawal	Chemical Engineering
	Naman Kumar Singh	Electrical Engineering
	Parmar Hitarth	Mechanical Engineering
	Shah Meet Parag	Mechanical Engineering
KPIT Technologies Limited	Khili Khamesra	Chemical Engineering
	Pranjal Darda	Electrical Engineering
Madhya Pradesh Urban Development Company Limited	Bhukya Heram Naik	Mechanical Engineering
Mahindra & Mahindra Limited	Pachpande Soham Kishor	Computer Science and Engineering
	Pankaj Vatwani	Electrical Engineering
Mahindra & Mahindra Limited	Jethva Utsav	Electrical Engineering
Mammoth Analytics	Akhilesh Ravi	Electrical Engineering
Matter Motor Works Private Limited	Anshul Shivhare	Electrical Engineering
	Chavali Bharath Chandra	Electrical Engineering
Mech Mocha	Sparsh Jain	Chemical Engineering
MECON Limited	Upendra Kumar	Mechanical Engineering
MiCoB Private Limited	Danish Mansoor	Civil Engineering
Momentive Performance Materials	Ayushman Bahuguna	Chemical Engineering
Multi Commodity Exchange of India Limited	Sammed Shantinath Kagi	Computer Science and Engineering
Mysuru Consulting Group	Mrinal Anand	Computer Science and Engineering

Company/University	Name	Discipline
National Atmospheric Research Laboratory	Priyansh Singh	Chemical Engineering
National High Speed Rail Corporation Limited	Kokkonda Prashanth	Civil Engineering
	Mayank Kumar	Civil Engineering
	Anil Berwal	Civil Engineering
	Jeetendra Kumar	Civil Engineering
Navin Fluorine International Limited	Dev Ajay Kakkad	Chemical Engineering
Nielsen India Private Limited	Shubhi Maheshwari	Chemical Engineering
North Eastern Space Application Centre ISRO	Shivansh Choudhary	Computer Science and Engineering
	Abhisht Tiwari	Computer Science and Engineering
	Patel Vandan	Computer Science and Engineering
	Shaurya Agarawal	Computer Science and Engineering
	K S Santhosh Kumar	Electrical Engineering
	Pratik Puri Goswami	Electrical Engineering
	Sai Praneeth Maddi	Electrical Engineering
	Dehade Sankesh Deepak	Electrical Engineering
	Ram Udit Saadh	Electrical Engineering
	G Ramanan	Mechanical Engineering
Nspira Management Services Pvt Ltd	Anurag Singh	Chemical Engineering
Nutanix	Heer Ambavi	Computer Science and Engineering
Nvidia	Apoorv Agnihotri	Computer Science and Engineering
Oil and Natural Gas Corporation Limited	Utkarsh Balodi	Materials Science and Engineering
OYO	Ujjwal Gautam	Materials Science and Engineering
Policy BootCamp - Vision India Foundation	Utsav Prashant Racca	Civil Engineering
Pradeep Metals Limited	Pankaj Kumar Saini	Materials Science and Engineering
Quantiphi Analytics Solution Private Limited	Jatin Ashish Dholakia	Electrical Engineering
Rail Vikas Nigam Limited	Shubham Raviprakash Baheti	Civil Engineering
Rakshak Foundation	Anish Dubey	Chemical Engineering
	Rahul Shakya	Chemical Engineering
	Rahul Yadav	Electrical Engineering
	Vedant Rajendra Gote	Mechanical Engineering
Ramboll India Private Limited	Piyush Chandra	Civil Engineering
Railtel Corporation of India Limited	Dharavath Anitha	Computer Science and Engineering
	Penumaka Gopi Kishore	Electrical Engineering
	Bidyan Basumatary	Materials Science and Engineering
RITES Limited	Ayush Singh	Civil Engineering
	Hansraj Bijarnia	Civil Engineering
	Kishan Khichi	Civil Engineering
	Pranjali Anil Borse	Civil Engineering
	Rensi Pipalia	Civil Engineering
Sahajanand Lasers Private Limited	Yannawar Pranav Sameer	Mechanical Engineering

Company/University	Name	Discipline
Sahyog Synthetics	Dhaiwat Kabaria	Materials Science and Engineering
Sandvik Asia Private Limited	Karanam Avinash	Mechanical Engineering
	Kakadiya Harsh Babulal	Mechanical Engineering
	Ratul Chakraborty	Materials Science and Engineering
	Dineshraj D	Materials Science and Engineering
Space Applications Centre	Abhinav	Mechanical Engineering
Srikalahasthi Pipes Limited	Pinniboina Muneeswar	Materials Science and Engineering
STRAUTX TECHNOLOGIES LLP	Mohamed Shamir T M	Mechanical Engineering
TAL Manufacturing Solution Limited	Saurabh Kartik Muneshwar	Mechanical Engineering
Tata Consultancy Services Limited	Davinder Singh	Computer Science and Engineering
	Debanuj Nayak	Computer Science and Engineering
	Kunal Verma	Computer Science and Engineering
	Rohit Sharma	Computer Science and Engineering
	Aditya Garg	Computer Science and Engineering
	Chennuri Prateek	Electrical Engineering
Tata Institute of Fundamental Research	Dhruval Suresh Shah	Materials Science and Engineering
The British Broadcasting Corporation	Sriram Sriharsha	Materials Science and Engineering
Udaipur Cement Works Limited	Ishank Singh	Civil Engineering
	Mukesh Kumar	Civil Engineering
	Rishabh Jain	Civil Engineering
	Madhav Tiwari	Civil Engineering
	Shreya Pamecha	Electrical Engineering
	Shivang Pareek	Mechanical Engineering
UNESCO Mahatma Gandhi Institute of Education for Peace and Sustainable Development	Gajapure Kshitij Dewanand	Computer Science and Engineering
White Panda	Shantanu Sakti Jana	Chemical Engineering
	Shivji Bhagat	Computer Science and Engineering

## DOMESTIC INTERNSHIPS (WINTER)

Organisation	Name of Student	Discipline
Toppr	Vaibhava Srivastava	Mathematics
	Anuradha Sharma	Mathematics
	Shrikant Shekhar	Mathematics
	Taru Taniya	Mathematics
	Aditi Sethia	Mathematics
	Meghana Gautam	Cognitive Science
	Richa Dobal	Physics
	Aman Sharma	Materials Science and Engineering
	Simpi verma	Chemistry



## CLASS OF 2019 GRADUATES PURSUING HIGHER STUDIES ABROAD

Full Name	Discipline	Institute Name	Programme	Country
<b>BTECH</b>				
Ankit Ghanghas	CE	Purdue University	MS	USA
Anshul Yadav	CE	University at Buffalo	MS	USA
Puneet Swami	CE	University of Illinois at Urbana Champaign	MS	USA
Anusha Kamath M	CL	University of Minnesota	PhD	USA
Akash Pallath	CL	University of Pennsylvania	PhD	USA
Siddharth Sheshadri K.	CL	Cornell University	MS	USA
Aparna N Tumkur	EE	Stanford University	MS	USA
Shivang Agarwal	EE	University of California Los Angeles	MS	USA
Ayon Biswas	EE	University of California San Diego	Masters	USA
Tejas Nimeshchandra Mehta	EE	Carnegie Mellon University	Dual Degree Masters Programme	USA
Saeed Aamer	ME	Purdue University	PhD	USA
S Santhosh	ME	University of Washington	PhD	USA
Aagam Rajeev Shah	MSE	University of Illinois at Urbana Champaign	MS	USA
Abhiroop Mishra	MSE	University of Illinois at Urbana Champaign	MS	USA
Arshdeep Singh Brar	ME	Delft University of Technology	MS	Netherlands
Aman Kamlesh Singh	MSE	EPFL - École polytechnique fédérale de Lausanne	Masters	Switzerland
<b>BTECH-MSC DUAL DEGREE</b>				
Parab Amogh Vishram	MA	Ohio State University	PhD	USA
<b>BTECH-MTECH DUAL DEGREE</b>				
P R Vaidyanathan	EE	Technische Universität Vienna	PhD	Austria
Chinmay Narendra Sonar	ME	University of California Santa Barbara	PhD	USA
<b>MSc</b>				
Manisha Biswas	CG	University of Oxford	MSc	UK
Kriti Kapil	CH	Carnegie Mellon University	PhD	USA
Divyansh Prakash	CH	University of Mississippi	PhD	USA
Dhanraj Kumawat	CH	University of Alberta	PhD	Canada
Kanhaiya Gupta	PH	University of Bonn	MSc+PhD	Germany
<b>MTECH</b>				
Maruthi Kumar Pabba	BE	Technical University Darmstadt	PhD	Germany
Meena K	BE	University of Edinburgh	PhD	UK
Sagardeep Bhakta	ME	University of Minnesota	PhD	USA
Abhishek Raghav	MSE	Japan Advanced Institute of Science and Technology	PhD	Japan
Ashutosh Jena	MSE	McGill University	PhD	Canada
Pravalika Butreddy	MSE	University of North Carolina at Greensboro	PhD	USA

## CLASS OF 2019 GRADUATES PURSUING HIGHER STUDIES IN INDIA

Full Name	Discipline	Institute Name	Programme	Country
<b>BTECH</b>				
Anusha Rajendra Malani	EE	IIM Bangalore	MBA	India
Battu Deepak	EE	IISc Bangalore	MTech	India
<b>MSc</b>				
Surjeet Singh Choudhary	MA	IISER Bhopal	PhD	India
Shrikant Shekhar	MA	IISER Bhopal	PhD	India
Pankaj Borah	PH	IIT Delhi	PhD	India
Rajes Ghosh	PH	IITGN	PhD	India
<b>MTECH</b>				
Rahul Gupta	BE	IIT Delhi	PhD	India
Bala Harsha Srusti	CE	IIT Gandhinagar	PhD	India
Sukrit Sharma	CE	IIT Gandhinagar	PhD	India
Nidhi Pandey	CL	IIT Bombay	PhD	India
Sachinkumar Babubhai Suthar	EE	IIT Gandhinagar	PhD	India
Pratik Prajapati	ME	IIT Gandhinagar	PhD	India
Akash Unnikrishnan	ME	IIT Gandhinagar	PhD	India
Sudeshna Dhar	MSE	IIT Bombay	PhD	India
<b>MA</b>				
Janaki R Nair	HSS	IIT Gandhinagar	PhD	India

# Our Campus





# STUDENTS' EXTRA CURRICULAR ACTIVITIES

## STUDENTS' SUMMER TECHNICAL PROJECTS (SSTP) 2019

The second edition of Students' Summer Technical Projects (SSTP) was organised during May 13 to July 2, 2019, by the Technical Council of IITGN. The programme was conducted exclusively for first-year BTech Students of IITGN, where the students worked on their projects and had experiential hands-on learning. Three teams were given support from the Institute to work on their prototypes and they have successfully completed their projects.

## UDAAN 2019

Udaan, the formal farewell dinner night for the graduating batch of IITGN was held on Apr 14, 2019. The event was organised to bid farewell to the 8th BTech, 7th MTech, 5th MSc, 4th MA batches and 6th set of PhD students of IITGN. Messages, speeches, and performances by the students and faculties, followed by a delicious formal dinner, made the event an evening to remember.

## UNDERGRADUATE RESEARCH CONCLAVE

IITGN organised its fourth Undergraduate Research Conclave (UGRC) on Aug 31, 2019. 50 undergraduate students of IITGN, who did their summer internships at various prestigious institutions/organisations around the world, presented their research work to the IITGN community. The Conclave was organised by **Prof Manish Kumar** and **Prof Iti Gupta**. The Best Poster Award was received by **Shreyas Sreeram** and **Pratik**. The posters by the following four students named, **Amit Kumar Singh Yadav**, **S Vinu Sankar**, **Tejas Wani**, and **Varun Gohil**, received Special Mention by the jury.

## TECH RADIO

Tech Radio at IITGN is a student tech talk series that gives an opportunity to the students to showcase their technical work/projects to the community. This semester, a total of three teams displayed their projects namely, **Team TelescoGalvans**, who designed an 'Automated Telescope System'; **Team Brainy Buddies**, who developed a 'Ball Tracking Bot'; and **Team ChemRover**, who designed a model car that derives power from temperature gradient developed between a chemical reaction and a physical reaction.

## BLOOD DONATION CAMP

The Health Committee at IITGN along with Ganeshotsav'19 students team organised a blood donation camp on Sep 05, 2019. A total of 95 units of blood were donated by students, faculty, staff and their family members.

## FOOD WASTE CHALLENGE

The first-year BTech students at IITGN took up a challenge to reduce food wastage by their batch to less than 10 kgs in a single day to create awareness among students to not take more food than what they can eat. The students achieved the target successfully as the total food wasted by the entire BTech 2019 batch was 2 kg 160 g.

## AMALTHEA 2019

The decennial edition of Amalthea, the annual technical summit of IITGN was held on Oct 19-20, 2019, on the theme 'Transcending Boundaries'. Amalthea 2019 enthralled young minds with a host of exhilarating events and competitions, advanced tech-expo, thought-provoking conclave lectures and an engaging symposium with several eminent speakers and industry leaders from all around the globe. The event was inaugurated by **Mr Sandeep Dhar**, President of Customer Experience Transformation, Hexaware Technologies, and **Prof Sudhir K Jain**, Director, IITGN.





## WINTER CARNATIONS

IITGN celebrated the 6th edition Winter Carnations on Nov 16, 2019, with a theme of 'Through the Looking Glass'. The event had lots of lip-smacking food dishes, exciting games, enthralling DJ music, and an open-mic programme.

## ROBOT SUMO WRESTLING

The second edition of 'Robot Sumo Wrestling' was held at IITGN on Dec 4, 2019. Robots made by students competed with each other in the ring, with some amazing knockouts during the multiple rounds of the tournament. **Prof Madhu Vadali** coordinated the competition.

## INTER-IIT TECH MEET

IITGN contingent had a great participation at the 8th Inter-IIT Tech Meet held at IIT Roorkee from Dec 20-22, 2019. IITGN teams secured bronze medals in the DIC Terrace Farming challenge, Ashoka Tech for Change challenge, and in the Case Study competition.

## INTER-IIT CULTURAL MEET

IITGN contingent gave winning performances during the 4th Inter-IIT Cultural Meet held at IIT Bombay. It won in various competitions including; Online Graphic Design (1st), All Over Fashion Genre (2nd), Online Modelling (3rd), Fashion Show (3rd), Monologue (3rd), and Design Marathon (Rebranding) (3rd).

## JASHN 9.0

The ninth edition of Jashn, the intra cultural fest of IITGN, was held during Jan 9-12, 2020. The four-day event was full of fun and enjoyment for the community.

## STUDENT LEADERSHIP CONCLAVE

The third edition of the Student Leadership Conclave was held at IITGN during Jan 11-12, 2020. Student leaders from 21 IITs participated and extensively discussed various topics.

## SANJEEVANI HEALTH CAMP

NYASA, IITGN in association with Desai Foundation, IIPHG and M S University, Baroda, organised the fifth edition of Sanjeevani - a health and awareness camp on Jan 19, 2020, for villagers residing in surrounding areas of IITGN. More than 1,000 people participated in various health check-ups and awareness activities.

## BLITHCHRON 2020

The tenth edition of Blithchron, the annual cultural fest of IITGN was organised on Feb 1-2, 2020. The much-appreciated event received a massive footfall of 12,000. The student body of IITGN worked hard to successfully bring the fun and entertainment that Blithchron is known for, with amazing cultural performances and events.



# SPORTS ACTIVITIES

## FITNESS SUMMER CAMP

The Sports team, IITGN, organised a 30 days fitness camp from May 15 to June 13, 2019, which was attended by over 180 people from the community. This camp was initiated to motivate the community to do daily exercises and convert this into a habit.

## SUMMER HALLA BOL

A Summer Halla Bol was held from June 21-23, 2019 for the entire IITGN fraternity, including the SRIP interns, to play games like 7-Stones, Futsal, Tug-of-War, Carrom Wars, Leg Cricket.

## TRACK & FIELD EVENT (TAFE)'19

The Sports team of IITGN organised the first-ever 'Track & Field Event' (TAFE) 2019 with a theme of "Finding the Speed and Power in You", from Aug 17 to Sep 7, to encourage everyone to identify their potential in the athletic events. Games like Shot Put, Discus Throw, Javelin, Sprints, Mid-distance Run, Long & Triple Jump etc. were part of the event.

## OPEN CHESS TOURNAMENT

An Open Chess Tournament was organised on Sep 8 for the students of IITGN. The tournament had six rounds of 10+0 minutes each.

## NATIONAL SPORTS DAY

IITGN organised different sports and physical activities on the occasion of National Sports Day on Aug 29, 2019, to commemorate legendary Hockey Wizard **Major Dhyan Chand's** birthday and his immense contribution to sports.

## INTRA MURAL

IITGN hosted the 6th Intra-Mural ceremony in the concluding week of Foundation Programme 2019. Different groups performed acrobatic moves, zumba dance, and formed a human pyramid. Team Naag stood as the overall winner of the tournament, whereas Team Akash was named as the runner-up.

## 5TH DISHA CUP

IITGN organised the 5th edition of Disha Cup, the annual cricket tournament for the Institute's outsourced manpower, from Nov 26 to Dec 1, 2019. A total of 160 support staff of the Institute, including security guards, maintenance staff, mess workers, office boys, housekeeping staff, and drivers, among others, actively took part in the tournament.

## 35TH INTER-IIT AQUATIC MEET

The 35th Inter-IIT Aquatics meet was conducted this year in IIT Kharagpur from Sep 28 to Oct 3 2019. Three members from IIT Gandhinagar's aquatics team participated in the event. Dhyanesh Baskaran participated in three events- 50m backstroke, 50m breaststroke and 100m freestyle and qualified for the finals in two of these events. He achieved 8th place in both of these events.

## 54TH INTER-IIT SPORTS MEET

A total of 112 students from IITGN participated in the 54th Inter-IIT Sports Meet jointly held at IIT Kharagpur & IIT Bhubaneswar from Dec 14-22, 2019. IITGN left a very good mark in the athletics section by winning in athletics (W) 100m - 4th position, athletics (W) 200m - 5th position, athletics (W) 400m - 6th position, athletics (M) 400m - 4th position, athletics (M) 200m - 9th position. In the chess tournament, IITGN secured 8th position.

## 26TH INTER-IIT STAFF SPORTS MEET

IITGN staff and faculty members participated in the 26th Inter-IIT Staff Sports Meet held at IIT Kharagpur. IITGN secured bronze medals in cricket and women's shot put.

## 1ST BEAT THE DEAN CHALLENGE

To inculcate the habit of running amongst students, IITGN's Physical Education Section organised a 5km and 2.5km run for community members on Republic Day, combining it with an exciting 'Beat the Dean' challenge by **Prof Harish P M**, Dean, Student Affairs. Nearly 30 out of 74 participants completed the challenge.

## GDFA TOURNAMENT

IITGN hosted the Gandhinagar District Football Association (GDFA) tournament's opening ceremony on Jan 25, 2020. Host team IITGN A defeated Insane Rovers Football Club's team IRFC B and won the first league match by a huge margin.

## VIKRAM SARABHAI CUP

IITGN Cricket team defeated Indus University to win the Vikram Sarabhai Space Cup, hosted by Space Application Centre (ISRO), Ahmedabad.

## INTRA MURAL

IITGN witnessed zealous participation in the Intra Mural sports tournaments of football (LFP), basketball (IBL), volleyball (SML), and cricket (CCL), along with newly introduced games like badminton, table tennis and athletics.

## BRONZE MEDALS IN PETRO CUP

IITGN team won bronze medals in the following events of Petro Cup, the Annual Sports Fest of PDPU held from Feb 13-18, 2020: Discus Throw, 200m Sprint, and 4\*100 m relay.

## PARTICIPATION IN JUSTICE LEAGUE

IITGN secured a bronze medal in the discus throw event at Gujarat National Law University's Annual Sports Fest, Justice League held from Feb 20-23, 2020.



# CASH AWARD FOR RESEARCH PUBLICATIONS

In its 9th meeting on Mar 28, 2013 the Board of Governors had approved a cash award scheme as an incentive for undergraduate and postgraduate students to publish in peer-reviewed journals. The following students were given cash awards during the year 2019-20:

Name of the Student	Programme	Amount (Rs)
Krishna Kumar	MTech	25000
Anurag Krishnakedar Gumaste	MTech (alumnus)	16000
Sidharth Sarmah	MTech	25000
Shailesh Garg	MTech (alumnus)	25000

Name of the Student	Programme	Amount (Rs)
Rana Singh	MTech	12500
Spand Bharat Mehta	BTech	12500
Dhanapala Prudhviraj	MTech (alumnus)	12500
Priyanka Kajla	MTech (alumnus)	25000
Sachin Verma	MTech (alumnus)	12500
Deep Shah	MTech (alumnus)	25000
Choudhary Saurabh Sunil	BTech (alumnus)	12500
Rajes Ghosh	MSc	12500
Arushi Dev	MTech (alumnus)	12500
Bhoopendra Kumar	MTech (alumnus)	12500
Aravinta Siva	MTech	8000

## SCHOLARSHIPS & FINANCIAL SUPPORT TO STUDENTS

IITGN believes that financial constraints should not become obstacles in the academic pursuit of any student. The Institute's extremely liberal financial aid and scholarship programs ensure that no student feels disadvantaged due to his/her financial situation. The Institute has thus constituted numerous scholarships and financial assistance mechanisms such as the Merit-Cum Means Scholarships, Donor Scholarships, Excellence Scholarships, TML-FAP (Tala Motors Ltd Financial

Aid Programme) etc. In addition to the above, the institute also provides financial support in form of financial grants, interest-free short/long term loans to deserving students for their needs towards expenditures such as tuition fee, hostel and mess fee, books, computer, pocket expenses, medical emergencies (beyond what is covered by insurance), social and cultural activities, internships and educational tours, etc.

The terms for interest-free loans and financial grants are as below:

- The short-term loans are provided to deserving students with demonstrated needs for the above-stated purposes from Student Benevolent Fund. The student may repay the loan using their stipend, personal sources or earning through the EWYL programme.
- The long-term loans are provided to deserving students with demonstrated needs for the above-stated purposes from Student Benevolent Fund. The repayment dates for the long-term loans may extend up to a maximum of 36 months from the recipient student's date of graduation.
- The financial grants are provided to deserving students with demonstrated needs for the above-stated purposes from Student Benevolent Fund. Unlike the short-term and long-term loans, the financial support received from such grants are not deemed to be repaid by the beneficiary students.

### Overall Scholarships and Financial Support to Students

Sl No.	Type of Scholarship and Financial Assistance	2019-20	
		No. of Beneficiaries	Amount of Scholarship (Rs in Lakhs)
1	Merit Cum Means Scholarship	34	6.60
2	Free Basic Messing and Pocket Allowance of Rs 250/- per months for ten months	63	23.37
3	Donor Scholarships	54	55.55
4	Excellence Scholarships	28	4.85
5	TML-FAP Assistance	45	32.34
6	Tuition Fee Waiver	150	238.00
7	Interest Free Loan and Grants (Financial Assistance provided for IITGN from Student Benevolent Fund)	131	80.49
Total		505	441.20

# SCHOLARSHIPS FOR STUDENTS

## MERIT-CUM-MEANS SCHOLARSHIPS

Merit-cum-Means (MCM) scholarships were awarded to 32 (14 Renewal+18 Fresh) postgraduate students of General and OBC categories during the academic year 2019-20. These scholarships are awarded to meritorious students (a high JEE/JAM rank for first-year students and CPI greater than 6.5 for senior students), whose annual parental income is up to Rs 4.5/- lakhs per year). An MCM scholarship carries a tuition fee waiver (current value Rs 10,000/- for postgraduates) and Rs 1,000/- per month for ten months. This scholarship was available to postgraduate batches of 2018 and 2019.

In addition, Freeship (tuition fee waiver) was also awarded to 2 postgraduate students.

All students of the SC/ST category avail full tuition fee waiver. In addition, 45 (36 Renewal + 9 Fresh) undergraduate and 18 (7 Renewal + 11 Fresh) postgraduate SC/ST category students whose annual parental income was within the limit prescribed for MCM scholarships were granted the facility for free basic messing and a pocket allowance of Rs 250/- per month for ten months for the academic year 2019-20.

## S C MEHROTRA SCHOLARSHIP

The S C Mehrotra Scholarship was instituted in the year 2010 and is open to all the BTech students. The scholarship amount is Rs 1 lakh per student per year and is awarded to one BTech student every year in order to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. Preference will be given to students of the Civil Engineering discipline. **Tejas Wani** is the recipient of this scholarship for the academic year 2019-20.

## PROF M H DIVEKAR SCHOLARSHIP

The Prof M H Divekar Scholarship was instituted in the year 2014 and is open for the third year BTech students of Chemical Engineering. The scholarship amount is Rs 40,000/- and is awarded every year to the student securing the highest grade in the Chemical Engineering course at the end of the third year. However, if a student qualifies for this scholarship at the end of the third year and is also a recipient of MCM or any other scholarship of equal or larger value than this scholarship, the amount of award will be Rs 10,000/- for

the year. **Khili Khamesra** is the recipient of this scholarship for the academic year 2019-20.

## CLASS-OF-2016 SCHOLARSHIP

The Class-of-2016 Scholarships are open to all BTech students. The scholarship amount is up to Rs 1 lakh per student per year to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. **C R Greeshma** and **Shubham Deshpande** are the recipients of this scholarship for the academic year 2019-20.

## MAHABIR PRASAD SULTANIA SCHOLARSHIP AND DURGA DEVI SULTANIA SCHOLARSHIP

These Scholarships were instituted in the year 2016 and are open to all BTech students. The scholarship amount is Rs 1 lakh each and a total of two scholarships are awarded every year to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students of Electrical Engineering with a minimum CPI of 6.5 are eligible. **Atharv Tandale** is the recipient of Mahabir Prasad Sultania Scholarship for the academic year 2019-20 and **Pranjali Jain** is the recipient of Durga Devi Sultania Scholarship for the academic year 2019-20.

## AMALTHEA SCHOLARSHIP

The Amalthea Scholarships were instituted in the year 2016 and are open to all BTech students. The scholarship amount is up to Rs 1 lakh per student per year to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. **Joshi Kavan, Akshay Mittal, Rahul Rajeev, Sakhalikar Pushpakraj Shyamappa, Chinmay Dashpute, Yash Makwana** and **Ajay Bhardwaj** are the recipients of this scholarship for the academic year 2019-20.

## LALITA J SHAH & JAYANTILAL B SHAH SCHOLARSHIP

The Lalita J Shah & Jayantilal B Shah Scholarship was instituted in the year 2016 and is open to all BTech students.

The scholarship amount is Rs 1 lakh per student per year and is awarded to one BTech student every year in order to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. **Tanisha Agarwal** is the recipient of this scholarship for the academic year 2019-20.

### P K KELKAR SCHOLARSHIP

The P K Kelkar Scholarship was instituted in the year 2016 and is open to all BTech students. The scholarship amount is Rs 1 lakh per student per year and is awarded to one BTech student every year in order to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. **Pratik Kayal** is the recipient of this scholarship for the academic year 2019-20.

### SRI TEMASEK@IITGN SCHOLARSHIP

Sri Temasek@IITGN Scholarship was instituted in 2016. This Merit-cum-Means Scholarship is awarded to one undergraduate student every year (open for second, third, and fourth-year students). Students with a minimum CPI of 6.5 and whose family annual income is not more than Rs 8 lakhs are eligible to avail of this scholarship. The scholarship amount is Rs 20,000/- per academic year. **Gowtham Chitipolu** is the recipient of this scholarship for the academic year 2019-20.

### SATYARAM SCHOLARSHIP

The Satyaram Scholarships were instituted in the year 2016. Students with a minimum CPI of 6.5 (CPI is not applicable for first-year students) and whose family annual income is not more than 3 lakhs are eligible for this scholarship. The scholarship amount is Rs 1 lakh per year per student and a total of 10 students were awarded Satyaram Scholarships in the year 2019-20. The recipient student continues to get the scholarship support till the completion of his/her BTech programme at IITGN, subject to meeting the eligibility criteria. The awardee is expected to financially help at least one needy IITGN student in the future. **K S Santhosh Kumar, Agrawal Parth Sunilkumar, Anuj Yadav, Ayush Kumar Gupta, Narni Vishnu Karthikeya, Patel Vandan, Ram Udit Saadh, Amlin Jose, Tella Selva Sowmya Rani, and Yashi Gaur** are the recipients of this scholarship for the academic year 2019-20.

### CLASS-OF-2015 SCHOLARSHIP

The Class-of-2015 Scholarships were instituted in 2017 and are open to all BTech students. The scholarship amount is up to Rs 1 lakh per student per year to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. **Karthik Subramanya Karvaje and Ajit Deshpande** are the recipients of this scholarship for the academic year 2019-20.

### KANDOI-DAIRKEE-GAURAV SCHOLARSHIP

The Kandoi-Dairkee-Gaurav Scholarship was instituted by three alumni of the Pioneer Batch (BTech graduates of 2012) at IITGN. This Merit-cum-Means Scholarship is awarded to a second or third-year BTech student who is actively involved

in non-academic activities of the Institute and showing trajectory towards all-rounded growth. The gross annual parental income of the student from all sources should not exceed Rs 8 lakhs per annum. The student should secure a minimum CPI of 6.0. The scholarship amount is Rs 50,000/- per academic year. **Patel Ajikumar Dahyalal** is the recipient of this scholarship for the academic year 2019-20.

### NITEEN P SANT SCHOLARSHIP

The Niteen P Sant Scholarship was instituted in the year 2014. BTech students of Civil Engineering or Materials Science & Engineering who are in their second year, with a minimum CPI of 6.5 and a maximum parental income of Rs 4.5 lakhs per annum are eligible to apply for this Merit-cum-Means scholarship. The scholarship amount is Rs 20,000/- per academic year. **Gaurav Kumar** is the recipient of this scholarship for the academic year 2019-20.

### CHANDRAKANT & PATRICIA SCHOLARSHIP

Chandrakant and Patricia Desai Scholarship was instituted in the year 2017 and is open to all BTech students. The scholarship amount is Rs 1 lakh per student per year and is awarded to one BTech student every year in order to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. Preference is given to students of Civil Engineering discipline. **Rohan Gupta** is the recipient of this scholarship for the academic year 2019-20.

### PROF KV VENKATESHA MURTHY SCHOLARSHIP

Prof KV Venkatesha Murthy Scholarship was instituted in the year 2017 and is open to all BTech students of Electrical Engineering. The scholarship amount is Rs 1 lakh per student per year and is awarded to one BTech Electrical Engineering student every year in order to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. Preference is given to needy students. **Prakash R** is the recipient of this scholarship for the academic year 2019-20.

### DR JL NAYYAR SCHOLARSHIP

Dr JL Nayyar scholarship was instituted in the year 2017 and is open to all BTech students. The scholarship amount is Rs 1 lakh per student per year and is awarded to one BTech student every year in order to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. Preference is given to the student who has demonstrated exemplary oral & written communication and presentation skills during the first six semesters. **Kratika Bhagtani** is the recipient of this scholarship for the academic year 2019-20.

### PROFESSOR DV PAI SCHOLARSHIP

Professor DV Pai Scholarship was instituted in the year 2018 and is open to all second-year students of the MSc programme in Mathematics at IITGN. This Merit-cum-Means Scholarship is awarded every year to one student of the MSc programme in Mathematics of IITGN. The gross annual parental income of the student from all sources should not



exceed Rs 8 lakhs per annum and the student should secure a minimum CPI of 7.0. The scholarship amount is Rs 25,000 per academic year. In addition, a book grant of total up to Rs 5,000 can be claimed by the recipient student against the actual expenditure incurred. **Goutam Biswas** is the recipient of this scholarship for the academic year 2019-20.

### MRS SITA JHA MEMORIAL SCHOLARSHIP

Mrs Sita Jha Memorial Scholarship was instituted in the year 2018 and is open to all BTech students. The scholarship amount is Rs 1 lakh per student per year and is awarded to one BTech student every year in order to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. Female students are usually given priority. **Neha Meena** is the recipient of this scholarship for the academic year 2019-20.

### SANTOSH RANI TANDON SCHOLARSHIP

Santosh Rani Tandon Scholarship was instituted in the year 2018 and is open to all BTech students of Civil Engineering. The scholarship amount is Rs 1 lakh per student per year and is awarded to one BTech Civil Engineering student every year in order to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. Preference is given to female students interested in Structural Engineering. **Arra Sriya** is the recipient of this scholarship for the academic year 2019-20.

### BIPIN AND REKHA SHAH SCHOLARSHIP

Bipin and Rekha Shah Scholarships were instituted in the year 2018 and are open to all BTech students of Electrical Engineering. The scholarship amount is Rs 1 lakh each and a total of two scholarships are awarded every year to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students of Electrical Engineering with a minimum CPI of 6.5 are eligible. **Sumit Walia** and **Manas Satish Bedmutha** are the recipients of this scholarship for the academic year 2019-20.

### BHAI SURESH MOHAN MITTAL SCHOLARSHIP AND BHAIR KRISHNA MOHAN MITTAL SCHOLARSHIP

These scholarships have been instituted in the year 2018 and 2019 and are open to all BTech students at IITGN. Two scholarships of Rs 1 lakh each are provided every year to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. **Amit Jangid** is the recipient of Bhai Suresh Mohan Mittal scholarship for the academic year 2019-20 and **Rahil Sanwla** is the recipient of Bhai Krishna Mohan Mittal scholarship for the academic year 2019-20.

### PROF S P SUKHATME SCHOLARSHIP

Prof S P Sukhatme Scholarship has been instituted in the year 2019 and is open to all the BTech Students at IITGN. The scholarship amount is Rs 1 lakh per student per year and is awarded to one BTech student every year in order to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are Eligible. **Sushrut Surve** is the recipient of this scholarship for the academic year 2019-20.

### AJODYABAI GULABCHAND JI RANDAD SCHOLARSHIP

Ajodyabai Gulabchand ji Randad Scholarship was instituted in the year 2019 and is open to all BTech students. The scholarship amount is Rs 1 lakh per student per year and is awarded to one BTech student every year in order to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. **Suyash Patidar** is the recipient of this scholarship for the academic year 2019-20.

### SHRI ARJUN RAJ MEHTA SCHOLARSHIP

Shri Arjun Raj Mehta Scholarship was instituted in the year 2019 and is open to all BTech students. The scholarship amount is Rs 1 lakh per student per year and is awarded to one BTech student every year in order to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. **Akhil Anil Rajput** is the recipient of this scholarship for the academic year 2019-20.

### VIMALA SRINIVAS SCHOLARSHIP

Vimala Srinivas Scholarship was instituted in the year 2019 and is open to all BTech students. The scholarship amount is Rs 1 lakh per student per year and is awarded to one BTech student every year in order to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. **Chinmay Kulkarni** is the recipient of this scholarship for the academic year 2019-20.

### ASHOK JAIN SCHOLARSHIP

Ashok Jain scholarship was instituted in the year 2019 and is open to all BTech students. The scholarship amount is Rs 1 lakh per student per year and is awarded to one BTech student every year in order to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. **Shreyas Singh** is the recipient of this scholarship for the academic year 2019-20.

### CLASS-OF-2013 SCHOLARSHIP

The Class-of-2013 Scholarships are open to all BTech students. The scholarship amount is up to Rs 1 lakh per student per year to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. **Ayan Rakshit** and **Bharg Mehta** are the recipients of this scholarship for the academic year 2019-20.

## PROFESSOR NITISH THAKOR SCHOLARSHIP

Professor Nitish Thakor Scholarship was instituted in the year 2019 and is open to all the BTech students. The scholarship amount is Rs 1 lakh per student per year and is awarded to one BTech student every year in order to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. **Ritik Jain** is the recipient of this scholarship for the academic year 2019-20.

## ERACH AND MEHROO MEHTA SCHOLARSHIP

Erach and Mehroo Mehta Merit Scholarship was instituted in the year 2019 and is open to the BTech students admitted at IITGN in AY 2019-20, AY 2020-21 and AY 2021-22. The scholarship amount is Rs 2 lakh per student annually for a period of four years with the total scholarship amount of Rs 8 Lakhs per student. The scholarship is awarded to the top five students admitted to the BTech programme at IITGN and

holding a JEE Advanced rank of 1000 or better or having represented India in any recognized international Olympiad. The scholarship is renewed every year subject to satisfactory academic progress (SPI of 8.5 or minimum CPI of 8.00 (with at least normal academic load and no fail grades)) and is not under any disciplinary sanction. **Hitarth Gandhi, Viramgami Gaurav, Lavti Shubh Sunil, Tumati Rohith Kumar Reddy, and Bodala Yajurvedh** are the recipients of this scholarship for the academic year 2019-20.

## VINAY KUMAR GUPTA SCHOLARSHIP

Vinay Kumar Gupta Scholarship was instituted in the year 2019 and is open to all BTech students. The scholarship amount is Rs 1 lakh per student per year and is awarded to one BTech student every year in order to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. **Manvendra S Chauhan** is the recipient of this scholarship for the academic year 2019-20.

# SCHOLARSHIPS FOR EXCELLENCE

IITGN has instituted several excellence scholarships for outstanding performance in academics, sports & games, art and culture, and social work and leadership. These scholarships are different from the Merit-cum-Means scholarships and awarded only on the basis of outstanding achievements in respective fields. The scholarship carries a monetary benefit of Rs 2,000 per month for 10 months. However, if the awardee is also a recipient of any other scholarship of equal or higher value, then he/she is eligible only for a one-time receipt of Rs 5000. Excellence scholarships for the academic year 2019-20 have been awarded as follows:

## SCHOLARSHIP FOR EXCELLENCE IN ACADEMICS

**Chinmay Girish Kulkarni, Khili Khamesra, Atishay Jain, Shubhanshu Singh, Rahil Sanwla and Ayan Rakshit** are the recipients of Scholarship for Excellence in Academics from BTech 2016 batch.

**Utkarsh Sandeep Gangwal, Shantanu Sakti Jana, Vraj Patel, Kaoshik Ronak Nitin, Shah Dhruvin and Varun Dolia** are the recipients of Scholarship for Excellence in Academics from BTech 2017 batch.

**Dave Hari Manish, Palak Purohit, Chris Francis, Roopak Sharma, Kushagra Sharma, Janvi Vinodkumar Thakkar** are the recipients of Scholarship for Excellence in Academics from BTech 2018 batch.

## SCHOLARSHIP FOR EXCELLENCE IN SPORTS & GAMES

**Abhishek Dubey, V V S Akhil, Shreya Pamecha, Shubhi Maheshwari, Vishesh Roy Anand, and Dharavath Anitha** were awarded the scholarship for excellence in Sports & Games for the academic year 2019-20.

## SCHOLARSHIP FOR EXCELLENCE IN ARTS & CULTURE

**Anushikha Singh and Ratul Chakraborty** were awarded the scholarship for excellence in Arts & Culture for the academic year 2019-20.

## EXCELLENCE IN SOCIAL WORK & LEADERSHIP

**C R Greeshma and Kshitij Sendre** were awarded the scholarship for excellence in Social Work & Leadership for the academic year 2019-20.

# ALUMNI ACTIVITIES

The office of Alumni Relations had an eventful 2019-2020. For the first time, IITGN received donations from over 50% of the alumni in the financial year 2019-2020, and over 80% of graduating students of Class of 2019 pledged the batch gift.



## LAUNCH OF ALUMNI RESIDENCY PROGRAMME

IITGN has launched Alumni Residency Programme with an aim to engage alumni in creating a vibrant and enriching ecosystem at the Institute. IITGN alumni with minimum three years of experience after graduation, can stay on campus and engage with the students and faculty in a range of activities/initiatives of the Institute.

## HOME COMING 2019

Homecoming - an annual alumni meet organised by the Office of Alumni Relations of the Institute was held on Dec 21-22, 2019. This was the third edition of Homecoming where IITGN alumni from different undergraduate and postgraduate

batches from all over the country and overseas came back to their alma mater. The two days of Homecoming 2019 witnessed several interactive sessions and activities between alumni, faculty, students, and the alumni relations office. **Prof Jaison Manjaly** coordinated the event.

## SOME OTHER NOTABLE RECENT INITIATIVES OF THE ALUMNI RELATIONS OFFICE

- Fraternity 2020 donation campaign
- Alumni Residency Program: Alumni to spend time in the campus for teaching, research or special project
- Alumni in Class: Alumni visit the campus or join online to take sessions for students
- Birthdays Communication: Personalised Greeting cards with a greeting call on alumni birthdays
- Alumni on Social Media: Featuring Alumni on social media with their personal stories, achievements, and contributions
- Alumni Endowed Scholarships: It is heartening to report that Alumni have established nine individual and one group endowed perpetual scholarships, each worth Rs 1 Lakh per year.



# STAFF ACTIVITIES



## EXCELLENCE AWARDS TO STAFF

IITGN celebrated the 71st Republic Day on Jan 26, 2020, with flag hoisting and address to the community by Prof Sudhir K Jain. Following staff members were awarded Staff Excellence Awards for the year 2019-20. Through these awards, the Institute formally recognises the sustained devotion and exemplary service of its employees.

**Mr Shri Krishan Birhman**, Assistant Registrar

**Mr Anand Pandey**, Assistant Manager (Commercialization)

**Mr Supin Gopi**, Junior Technical Superintendent

**Mr Manubhai Chaudhari**, Security Supervisor

**Mr Gaurav Kumar Singh**, Junior Assistant

**Mr Hareshkumar Chaudhari**, Medical Assistant

**Mr Rajnikant Patani**, Office Attendant

**Mr Parikshit Solanki**, Office Attendant

**Mr Dinesh V Solanki**, Housekeeping Staff



## LIBRARY OPEN HOUSE

The Central Library, IITGN, arranged an Open House for the IITGN community on May 29, 2019, with a rich and varied collection of books. The library team also organised games, quizzes, and interactive activities for the community and children, around the theme of books and reading, with some exciting prizes. The event was an attempt to gather everyone at one place and discuss ways to make the library and its operations more user-friendly.

## SDC- LEAP SESSION

The Staff Development Cell organised another session under the LEAP initiative on May 25, 2019, to promote interpersonal skills, peer-to-peer relations, and teamwork among the non-teaching staff at IITGN. The session was conducted by **Ms Rashmi Datt**, a professional trainer, on the topic of 'Developing Team Agility'.

## FAMILY SPORTS FESTIVAL

The fourth edition of IITGN Family Sports Festival was held from May 31 - June 2, 2019, with an aim to bring together faculty members and staff along with their families to interact and participate in group events and activities. The event included games and activities for all age groups, like Leg Cricket, Women Football, Relay Race, Puppet Show, and Family Fashion Show.

## A SERIES OF SESSIONS BY SDC

The Staff Development Cell organised various events/sessions for the development of the Institute's staff members. These events included a familiarisation session on NPS; sessions on stress management, demonstration & practice of Yoga; sessions by professional trainers on self-improvement, motivation and team building.

## OBT 3.0

The Staff Development Cell of the Institute organised 'Leaps and Bounds' Outbound Training (OBT) 3.0 on Dec 7, 2019, at a beautiful campsite in Anand, Gujarat. Around 70 staff members participated. Several unique team-building and adventurous activities were lined up for the non-teaching staff.

## ANNUAL PICNIC 2020

IITGN's annual picnic, on Feb 23, 2020, at Aranya Udhyan, Gandhinagar, was replete with fun activities and entertainment for everyone.

## LUNCH AT ORGANIC FARM

More than 170 members of the IITGN community visited the organic farm on the campus on Jan 19, 2020. The tour was followed by a village-style lunch and various recreational activities.

## STAFF TRAINING

**Mr Ram Babu Bhagat**, Dy Registrar (Estt & Admin) attended a training programme on 'Public Procurement (Advanced)' from Oct 22 to 25, 2019, at the National Institute of Financial Management (NIFM), Faridabad.

# OUTREACH ACTIVITIES



## IIT GANDHINAGAR RESEARCH PARK

The IIT Gandhinagar Research Park seeks to foster a powerful interplay between industry and academia, and thereby push the boundaries of innovation and research. Industries can set up their offices at the IITGN Research Park to carry out R&D activities. This allows them to be part of a vibrant community and gain access to R&D professionals, students and state-of-the-art R&D infrastructure at IITGN.

The IITGN Research Park activities have begun to increase with more companies interested to set-up their research related activities here. Following companies have started their operations at IITGN Research Park.

### COMPANIES AT IIT GANDHINAGAR RESEARCH PARK

Name of the Company	Area currently occupied (sq ft)	Area of interest
Gujarat Urja Vikas Nigam Limited (GUVNL)	1,500	Electric Power
Win Foundations	504	Water and Sanitation
Tawata Technologies	130	Specialty Chemicals





Name of the Company	Area currently occupied (sq ft)	Area of interest
DP Pulveriser Industries	130	Manufacturing
NASSCOM	2,000	IoT and IT
PanIIT Alumni Reach For India Foundation (PARFI)	160	Skill Development
Optimized Solutions Limited	180	Electronics and Embedded System
Central Public Works Department (CPWD)	355	Construction technologies and housing
Pal Rematerials	130	Materials Properties
Redpine Signals	355	Chipset and system level products in AI space
British Broadcasting Corporation (BBC)*	260	Data and Media
e-Infochips **	260	Cloud, IoT and Security

\* upto March 2020

\*\* upto October 2019



- On Sep 11, 2019, Union Minister **Shri Ravi Shankar Prasad** inaugurated the NASSCOM Centre of Excellence in the Internet of Things and Artificial Intelligence at IITGN's Research Park.
- The construction work for the permanent buildings of the Research Park is at an advanced stage of completion. The 3rd meeting of the Advisory Council for IIT Gandhinagar Innovation and Entrepreneurship Center (IIEC) and Research Park took place on Aug 13, 2019, and the 4th meeting of the Advisory Council for IIEC and Research Park was held on Mar 5, 2020, under the chairmanship of **Mr Kris Gopalakrishnan**, co-founder Infosys Ltd.



- The second edition of the **Industry Conclave-Connections 2019** was organised on Nov 9, 2019. The event was attended by more than 90 participants with representation from 41 companies from across the country including 6 MNCs.

# IITGN INNOVATION AND ENTREPRENEURSHIP CENTRE

**IITGN Innovation and Entrepreneurship Centre (IIEC)**, which is incorporated under the Companies Act, 2013, is fully geared to support the incubation and technology commercialisation initiatives of the Institute.

The year was very exciting for innovation and entrepreneurship at IITGN with our students and alumni engaging in exceptional entrepreneurial activities. Startup promoted by 2 of our alumni raised VC funding of around 7M \$ for their startup. The Institute filed 13 new patent applications during Aug 2019-Mar 2020. We supported 12 startup companies under incubation and pre-incubation programmes, and reached out to more than 1,000 students and startups through different programmes such as talks, masterclasses, short courses, training programmes, among others.

Some of the key programmes conducted include:

## BOEING BUILD PROGRAMME

IIEC partnered with Boeing India to implement BUILD (Boeing's University Innovation Leadership Development) programme. The programme was designed for students and budding entrepreneurs for shaping their ideas to viable businesses of tomorrow. As part of the programme, a one week boot camp was organised at IITGN for 11 shortlisted teams of students and early stage startups during Aug 2-6, 2019. The programme ended with a regional pitching competition on Aug 7 that resulted in shortlisting of 4 teams for the National Finals held at Boeing R&D center at Bangalore. One of the teams - Photom Technologies won the \$10,000 grant in the programme.

## IDE 2.0 PROGRAMME

With a commitment to develop a culture of innovation and entrepreneurial spirit and to bring out creativity, innovation, and entrepreneurial attitude among students, IIEC and Entrepreneurship Initiative of IITGN (EI) started Innovation Driven Entrepreneurship (IDE) 2.0 during the winter vacation of 2019. The 2nd edition was announced in Oct 2019. This initiative provides a platform for our students to propose innovative and creative ideas that may lead to entrepreneurial venture creation. The promising ideas/innovation/startup will be further supported for advancement and incubation.

A total of 27 teams comprising 55 students submitted their ideas for IDE 2.0. A panel comprising **Prof Nithin George**, **Prof Madhu Vadali**, **Shri Nirmal Jha** along with **Mr Abhishek Kandoi** interacted with all the teams to understand their preparedness for the programme.

Finally, five teams were shortlisted to attend a boot-camp at Bangalore during Mar 9-14, 2020. The teams visited a number of R&D centres of large companies & incubators, and interacted with some leading entrepreneurs during the programme. The details of the visits are as follows:

### Large Companies

- Intel Maker Lab
- IBM
- Honeywell
- Altair Technologies
- Underwriters Laboratories

### Strarups/ Incubators / Investors

- Recko
- Yulu Bike
- Prime Ventures
- WeWorks
- Social Alpha
- Whitepanda
- Gratitude

## SUMMER ENTREPRENEURSHIP PROGRAMME

During the summer of 2019, IIEC conducted a two months long Summer Entrepreneurship Programme wherein students and entrepreneurs from different institutions and places worked on validating their ideas and learned about entrepreneurship in a structured manner. They were provided access to Tinkerer's lab, co-working space, faculty and IITGN's labs. There was also a budget of Rs 15,000/- per team to purchase components to make a prototype. Out of 167 applicants, 32 participated in the programme.

## OTHER PROGRAMS

a. **IDEA PITCHING SESSION:** A two-day pitching session was organised for 37 startups on Dec 9-10, 2019. The session was organised in collaboration with Denver, USA based venture capital firm 3lines Venture Capital. The screening team comprised **Mr Kamalesh Dwivedi**, **Mr Krishna Kunapulli** and **Mr Ashish Jain** from the 3lines team. 10 companies were shortlisted for further due diligence for investments. One of the teams (Lymbedge) was adjudged 3Lines India Best Innovation and was awarded a cash prize money of Rs 51,000/-.

b. **MENTORING SESSIONS BY MR KAMALESH DWIVEDI:** **Mr Kamalesh Dwivedi** was available as mentor-in-residence and he offered following open sessions for startups and students during Jan 3-13, 2019:

- i. Business communication in a global world
- ii. Startup lifecycle management
- iii. How to value startup

He interacted with a number of students and all the startups at IIEC and also offered a cash prize of Rs 25,000/- to one of the startups- Snapper.

c. **SHORT COURSE ON BUILDING EARLY STAGE STARTUPS AND VALUATIONS BY MR B V JAGADEESH:** This was the 3rd edition of this highly sought after and in-depth programme. A total of 43 participants attended it, including 13 students of IITGN, and entrepreneurs and professionals from outside.

d. **STARTUP PITCHING AND NETWORKING PROGRAMME:** The programme was organised as a part of Connections 2019 on Nov 9, 2019. Out of the 75 startups who applied for pitching, 8 got the opportunity to pitch their ideas. More than 80 startups attended the programme.

## ESTABLISHMENT OF NIDHI-PRAYAS CENTER

The Department of Science & Technology, Government of India has sanctioned establishment of a Prayas Center at IIEC under their Nidhi Prayas programme. A grant of Rs 60 Lakhs has been sanctioned under this for the year 2020-21. The Ministry of MSME, Government of India has also recognised IIEC as a Host Institute to implement its entrepreneurship support programme.

## STARTUPS SUPPORTED DURING THE YEAR

12 startup companies were supported under the incubation and pre-incubation programme at IIEC during the year 2019-20.

### STARTUPS UNDER INCUBATION

a. **GEO-CARTE RADAR TECHNOLOGY PRIVATE LIMITED** ([www.geocarte.in](http://www.geocarte.in)), founded by **Ms Silky Agarwal**, class of 2015, works on nondestructive geophysical exploration

for sub-surface investigation using ground penetrating radar (GPR). The startup has already reached a revenue of approx 3 crore, creating employment opportunities for more than 40 persons.

b. **MICOB TECHNOLOGIES** (<https://micob.in>) is an entrepreneurial venture started by a group of PhD students at IITGN. The company focuses on bringing automation solutions to various sectors ranging from civil engineering labs to large scale construction projects. The startup is in the final stage of discussions of raising funds for product development and deployment.

c. **WHITEPANDA** ([www.whitepanda.in](http://www.whitepanda.in)) is a content development platform connecting businesses in need of content, to talented freelance writers. The startup is able to generate around 4-5 lakhs revenue per month and has raised Rs 50 lakhs in angel round.

d. **POWENCY CIRCUIT PRIVATE LIMITED** ([www.powency.com](http://www.powency.com)) is working in the area of developing Power Management Integrated Circuits (PMIC) with higher efficiency. The startup is in the product development stage.

### STARTUPS UNDER PRE-INCUBATION

a. **AUTO FOREST:** Auto forest has developed battery powered bicycle, which can run on 3 modes, i.e. Manual, Automatic and Hybrid. The startup is working on developing the business model.

b. **SVAKATHA:** This startup is introducing design and apparels technology solutions using AI and virtual reality. The startup recently won a pitching competition organised by 3line.vc and is under due diligence stage for funding.

c. **MOTION MATTERS:** Motion Matters is an early stage IoT startup working on smart wearables for form/technique/posture monitoring and an accompanying virtual coaching app. This technology has applications in sports, fitness and physiotherapy.

d. **INFY U LABS:** The startup is developing a low-cost handheld assessment device based on UV-vis-NIR spectroscopy integrated with an AI-powered cloud-based application. The device is capable of doing non-invasive rapid testing of fruits for nutritional values and presence of harmful chemicals based on their BRIX level, ripeness stage, and pesticide content threshold.

e. **WORKER NAKA:** Worker Naka is a web-based program that smartly connects construction work seeking daily wagers with work providers (Tier-3 Construction Contractors).

f. **STUDIO 1.11:** This startup provides AR solutions helpful to the developers in providing a Real Scale Augmented Model tour before any prior investment on construction.

g. **SNAPPER:** Snapper is a wireless photo booth camera for taking wide and aerial angle selfies that too without internet access, having to install any app, and asking any stranger.

h. **COUNTERVISION:** This startup helps retailers understand their customers to increase average profit per visitor by providing analytics and visitor insights using computer vision and AI.



# NYASA: IITGN COMMITMENT TO SOCIAL OUTREACH



IITGN continued its strong commitment to underprivileged children welfare through Nyasa. The children of neighbourhood migrant workers attend the daily school run by the volunteers and are actively engaged in several educational activities and general festive celebrations (Independence Day, Diwali, Ganesh Chaturthi, Hallaboli, Uttarayan, Birthday, Teacher's Day among others). Since the 2nd phase of campus construction started in 2018, the number of construction workers on the campus saw a significant increase. Nyasa regularly conducted campus audits to keep track of the living conditions of the workers. To acquaint the incoming batch of students with the social outreach programmes of IITGN, Nyasa conducted an introductory session in the 2019 Foundation Programme. Nyasa also instituted a community teaching programme, called Chetana. Under Chetana, faculty, staff, and students of IITGN came together to conduct regular teaching sessions for construction workers' kids. This not only helped the children with their education but also served as an eye-opener for the teaching volunteers, acquainting them with the grassroots of India. This year saw a significant rise in the number of activities and the impact it made on the society around us. We hope to continue this endeavor fervently.

## NYASA KIDS' BIRTHDAY CELEBRATION

Every year, team NYASA celebrates the birthday of the children of construction workers with great fervour and happiness. All the kids get to celebrate their birthday on the same day by cutting cake, playing fun games, getting birthday gifts and eating together. This summer too, Nyasa celebrated their birthdays on May 4, 2019, with an evening full of cheer, laughter, games and gifts.

## CELEBRATION OF WORLD ENVIRONMENT DAY

On June 5, 2019, team Nyasa along with the children, celebrated World Environment Day. It was an effort to spread awareness among the young minds about the environment facing unprecedented perils. A tree plantation drive was also organised, where all the children planted saplings. They were accompanied by Bagirath Solanki, Forester, Forest Research Centre, Basan, Gandhinagar.



## SUMMER CAMP

Nyasa conducted a 10-day summer camp from June 20-30, 2019, for kids from nearby villages, to help them explore their hobbies and talent. The summer camp included sessions such as fun with CCL, dance, magic show, movie show, self-defense, sketching and doodling, drama, and storytelling.

## CLEANLINESS CHALLENGE

With the noble objective of clean IITGN and clean India, Nyasa volunteers campaigned a commendable initiative in which the students of IITGN were invited to take part in the 'NayaSa Challenge'. As part of this challenge, different groups of students voluntarily participated in cleaning up those areas within or nearby IITGN, which are out of reach of the cleaning staff. The Nyasa classroom and the ambience was also revamped with new furniture and new wall paints.

## DONATION DRIVE FOR CONSTRUCTION WORKERS

Nyasa organised two donation drives for the Institute's construction workers. The first donation drive was organised on Sep 1, 2019, for more than 1,000 construction workers residing in the construction colony in Basan. Under this drive, clothes were donated to the residents of the colony. The second donation drive was organised on Feb 23-24, 2020, for the institute's construction workers residing in the

construction colony in Palaj. The colony is home to over 1,000 workers who work dedicatedly for the development of our campus. Clothes, shoes, and school bags were donated to the residents of the colony.

## DIWALI CELEBRATION

Nyasa kids along with some IITGN students visited the Rahelba Vrudhashram (an old age home) to celebrate Diwali with the blessings of elders. As a sweet gesture, the team took with them some gifts and fruits for these elderly people and had lunch with them. Besides, team Nyasa celebrated the festival of Diwali with great enthusiasm for these children. Prof Sudhir K Jain also joined the celebration.

## SANJEEVANI HEALTH CAMP

On Jan 19, 2020, Nyasa, in collaboration with Desai Foundation; Indian Institute of Public Health Gandhinagar (IIPHG); and M S University, Baroda, organised Sanjeevani - a health and awareness camp for the villagers residing in its surrounding area. More than 1,000 people turned up for different health check-ups during the camp. A no-cost medical check-up was conducted along with free distribution of medicines. Apart from this, several stalls were arranged to spread awareness on important issues like first-aid, personal hygiene, nutrition, eye care, safe drinking water, cancer, sexual and reproductive health, and waste disposal.



# NEEV: IIT GANDHINAGAR COMMUNITY OUTREACH PROGRAMME



NEEV is a community outreach programme of IITGN that provides training and mentoring pertaining to skill development and entrepreneurship, to women and youth from the surrounding villages, such that it helps them with their livelihood. Since 2014, NEEV has conducted over 75 projects and activities for 2500+ beneficiaries from the Ahmedabad/Gandhinagar areas, including 15 villages near IITGN. **Ms Soumya Harish** is the coordinator, **Ms Shraddha Jain** is the program associate, **Ms Roshni Patel** is the programme assistant, and **Ms Ritu Singh\*** is the project intern of NEEV. Philanthropic support for several of NEEV's projects is provided by **The Desai Foundation**.

## ENTREPRENEURSHIP DEVELOPMENT

NEEV organises **Entrepreneurship Development Workshop** that include topics such as idea generation, market research, negotiation, marketing, types of cost, break-even analysis, and basic business plan preparation. NEEV also organises **Entrepreneurship Awareness Session** to promote entrepreneurship as a viable avenue of livelihood generation. The following entrepreneurship workshops and awareness session were conducted in 2019-20:

- A 5-day workshop during July 8-12, 2019 at IITGN for 26 participants from villages such as Palaj, Basan and from Gandhinagar/Ahmedabad city areas.
- An awareness session on July 18, 2019 at Government Engineering College (GEC), Gandhinagar for 38 high school students from various schools in Gandhinagar
- An awareness session on July 18, 2019 at Government Engineering College (GEC), Gandhinagar for 70 students of GEC Gandhinagar
- An awareness session on July 18, 2019 at Industrial Training Institute (ITI) Sector 15, Gandhinagar for 28 students of ITI
- A 5-day workshop during Dec 16-20, 2019 at IITGN for 31 youth from Navyug Youth Centre, Odhav, Ahmedabad
- An awareness session on Dec 18, 2019 at Military Station, Chiloda, Gandhinagar for 27 women, all of whom are spouses of army personnel such as halvaldars, subhedars and junior officers
- An awareness session on Jan 8, 2020 at Industrial Training Institute (ITI) Sector 15, Gandhinagar for 55 students of ITI
- A 5-day workshop during Jan 20-24, 2020 at IITGN for 27 students from Industrial Training Institute (ITI) Sector 15, Gandhinagar

The lead facilitators for the workshops and awareness sessions include **Mr B R Venkatesh** and **Ms Tejaswini Venkatesh** from MBTLA Mumbai, Maharashtra, and **Ms Shraddha Jain** and **Ms Soumya Harish** from NEEV.

## SKILLS DEVELOPMENT

### VOCATIONAL SKILLS TRAINING COURSE

NEEV conducted vocational skills training courses during May 13-July 5, 2019. 9 participants enrolled in the 8-week wiring course, and for 16 participants enrolled in the 2-week CNC Machining course. Participants for the wiring trade included youth from Palaj village in Gandhinagar, and out-station participants from Valsad, Gujarat. The participants of the CNC Machining course were students from Industrial Training Institute (ITI), Sector 15, Gandhinagar. The course also included a field visit by the wiring students to Thermal Power Plant, GSECL, Gandhinagar. The facilitators for the course were **Ms Palak Bagiya** and **Mr Sibaram Sahu**, from Electrical Engineering Lab, IITGN, and **Mr Ramanand Prajapati** and **Mr M Armugam** from Mechanical Engineering Lab, IITGN.

### STITCHING SKILLS TRAINING COURSE

With a focus on empowering rural women, NEEV conducts basic to intermediate level training courses in sewing. The modules include measurement, marking, cutting and sewing. At the end of these courses these women were able to make products such as cushion covers, cloth bags, baby frocks, salwar-kameez, and ladies blouses. The following sewing courses were conducted in 2019-20:

- An 8-week basic level sewing course for 26 women during May 13-July 5, 2020 at Palaj village, Gandhinagar
- An 8-week intermediate level sewing course during Aug 19-Oct 3, 2019, at IITGN, for 14 women from the villages of Palaj and Basan, Gandhinagar
- An 8-week sewing course for 22 women during Nov 18, 2019-Jan 10, 2020, at Basan village, Gandhinagar

**Ms Mamta Parekh** from Ahmedabad was the trainer for the courses.



## COMPUTER SKILLS TRAINING COURSE

NEEV conducted an 8-week computer skills training course during May 13-July 5, 2019, for 33 participants from villages such as Palaj, Basan, Prantiya, Talod in Gandhinagar. The course included basics of computer operation, MS office and use of the internet. **Ms Hemangi Patel** from Ahmedabad was the trainer for the course.

## SPOKEN ENGLISH TRAINING COURSE

NEEV conducted an 8-week spoken English training course during May 13-July 5, 2019, for 19 participants from villages such as Palaj, Basan, Prantiya, Shahpur, Firozpur and Chandrala. The course included modules on basic grammar, pronunciation, commonly used words in daily life, self-introduction, preparing for personal interview, with the help of descriptive writing and speaking, role-play and group discussions. **Ms Asha Belgi** from Ahmedabad was the trainer for the course.

In collaboration with Amalthea, the annual technical summit of IITGN, NEEV also conducted basic spoken English training sessions for IITGN security guards during Sep 18-Oct 9, 2019. Four sessions with topics such as self-introduction, workplace introduction, commonly asked questions, and use of a translation app to improve English were conducted. **Ms Suzanne Doshi** from Gandhinagar was the trainer for the sessions.

## HARDWARE & NETWORKING TRAINING COURSE

- NEEV conducted an 8-week Hardware & Networking Training Course from May 13-July 5, 2019, for 7 participants from Palaj village and Chiloda, Gandhinagar. The introductory course covered topics related to computer hardware components, devices and its repairing, operating system and its formatting, networking devices, protocol, remote access & connectivity. **Mr Hitesh Patel** from Gandhinagar was the trainer for the course.
- Skills courses conducted during May 13-July 5, 2019 concluded on July 5, 2019, with a valedictory function. **Smt Mona Khandhar, IAS**, the Secretary and Commissioner of Rural Development, Government of Gujarat was invited as the chief guest of the event.

## NEWLY INTRODUCED COURSES IN 2019-20

Based on feedback from women on additional courses that would be beneficial to them, NEEV conducted the following courses and workshops during 2019-20:

- **BEAUTICIAN SKILLS TRAINING COURSE** - An 8-week basic course in beautician skills conducted during Jan 6-Feb 28, 2020 at IITGN for 30 women from the villages of Palaj and Basan. The course included topics pertaining to beauty treatments such as facial, manicure, pedicure, waxing, threading and basic make-up. The trainer for the course was **Ms Rajlaxmi Sharma** from Gandhinagar.
- **JEWELLERY MAKING WORKSHOP** - A 5-day workshop conducted during Sep 26-30, 2019 at Palaj village for 11 women from the village. The women learnt to make earrings, bangles, anklets, bracelets and necklaces using quilling, stones, beads, pearls, and metal pendants, and also got a chance to showcase their work at an exhibition held at IITGN. The trainer for the workshop was **Ms Vaishali Gohil** from Bharuch, Gujarat.

- **CANDLE MAKING WORKSHOP** - A 5-day workshop for 24 village women during Dec 23-27, 2019, at Palaj village. The women learnt the art of making beautiful and artistic candles with wax, and also got a chance to showcase their work at an exhibition held at IITGN. The trainer for the workshop was **Ms Nidhi Pathak** from Navsari, Gujarat.
- **PAPER PRODUCT WORKSHOP** - A 6-day workshop for 17 village women during Feb 24-29, 2020, at Basan village. The women learnt the art of making products such as gift envelopes, gift bags, paper carry-bags, paper folder and notepad from handmade paper sourced from Kalamkush, Gandhi Ashram and from newspapers. The trainer for the workshop was **Ms Tanazz Ankalesaria** from Mumbai.

## LIVELIHOOD GENERATION MARKET LINKAGES AND SUPPORT

Between Apr 2019 and Mar 2020, NEEV also provided product-specific training, and then facilitated livelihood opportunities through bulk orders for products such as cloth bags, curtains, stoles and laptop bags. Notably, 20 women have collectively earned Rs 1.5 lakhs just by stitching such products for IITGN alone. These projects have contributed towards a new kind of capacity building of rural women and has opened up livelihood opportunities for them; at the same time, it has also made them confident.

- **CLOTH BAG PROJECT** - For workshops and conferences organised by IITGN throughout the year, several faculty members requested reusable cloth bags be made. NEEV approached the women of Palaj and Basan villages, previously trained in stitching to provide these bags, and supported them with additional mentoring such as help in identifying raw material vendors and printers. A total of ten women have made and sold close to 1500 bags to IITGN.
- **CURTAIN STITCHING PROJECT** - For its two newly-built hostels, IITGN approached the women of Palaj and Basan villages, who in the past were trained under NEEV's course in stitching. A total of eight women, after specialised training and handholding support from NEEV trainers, were able to stitch 490 curtains for the hostels.
- **CONVOCATION STOLE PROJECT** - For its 8th convocation held on July 27, 2019, satin stoles were presented to parents and family members of the graduating students. 600 stoles were stitched by eight women from the villages of Palaj and Basan.

## FIELD VISIT FOR BTECH STUDENTS DURING FP 2019

On Aug 8, 2019, NEEV organised a field-visit for the BTech freshmen to the neighbouring Palaj village as a part of the Institute's Foundation Programme. The aim of this field visit was to make the students interact with the grassroots communities, to know about their livelihood and culture.



# EXTERNAL RELATIONS

## MoUs

IITGN has been constantly building strong and mutually beneficial relationships with internationally renowned academic institutions and non-academic organisations. Several partnerships forged in the year 2019-20 will benefit the students and the faculty.

### INTERNATIONAL

ORGANISATION / INSTITUTION	OBJECTIVE
Dharma Civilization Foundation, Los Angeles, USA	To create and support Irma and Ushakant Thakkar Chair in Sanskrit Studies to teach courses on Sanskrit language and literature
Indira Foundation, Greenwich, USA	To establish Indira Foundation Leadership Development Initiative and scholarships
Instituto Superior Tecnico, Lisboa, Portugal	Student exchange programme
Mr Rujintan (Ron) E Mehta, New Jersey, USA	To set up Erach and Meheroo Mehta Merit Scholarship at IITGN

ORGANISATION / INSTITUTION	OBJECTIVE
Wheels India Niswarth Foundation, USA	To support and facilitate research and innovation in the areas of water quality, purification and sanitation
Rutgers, The State University of New Jersey, USA	To promote interaction and collaboration between faculty, staff and students through student and faculty exchange, and academic and research programmes
Rowan University, Glassboro, USA	
New Jersey Institute of Technology, USA	
New Jersey City University, USA	To organise customised training programmes/ conference, and to establish annual exchange of students between the two institutions
Jibaben Patel Foundation, California, USA	To support educational and research excellence at IITGN by establishing Jibaben Patel Chair, Jibaben Patel Chair in the area of Artificial Intelligence, and naming of 300 auditorium as Jibaben Patel Memorial Auditorium

## NATIONAL

ORGANISATION / INSTITUTION	OBJECTIVE
Central Public Works Department, New Delhi	For CPWD to set up an R&D Cell at IITGN Research Park
Hilti India Pvt Ltd, New Delhi	To enhance understanding of the current state of practice in India pertaining to fire stops and perimeter fire barriers
Gujarat Biotechnology Research Centre, Gandhinagar	To undertake collaborative research, education, training and awareness programmes
GSFC University, Vadodara	To cooperate and work together and explore the possibility of joint collaboration in the field of fire, safety, health and environment
National Council of Science Museum Kolkata and IIT Kharagpur	To carry out collaborative research work for GANDHIPEDIA project
CITELUM India Pvt Ltd, Ahmedabad	To initiate and carry out cooperation on studies, research and contextualising
Mr Kris Gopalakrishnan, Bangalore	To encourage and promote the study of the history of mathematics in India
Gujarat Council on Science and Technology (GUJCOST), Gandhinagar	To establish endowment for Vikram Sarabhai Chair at the Institute
Shri N R Narayana Murthy, Bangalore	To nurture academic excellence and establishment of Rama Rao Chair at the Institute
Shri Gordhanbhai B Gehlot, Ahmedabad	To establish Gordhanbhai B Gelot Laboratory for Artificial Intelligence and Data Science



## ORGANISATION / INSTITUTION

Shri Gordhanbhai B Gelot, Ahmedabad

## OBJECTIVE

To establish Kankuben Bakshirambhai Gelot Chair for a woman faculty and Kankuben Bakshirambhai Gelot Scholarship for woman undergraduate student in any area of engineering or natural sciences at the Institute

## IITGN RESEARCH PARK

### ORGANISATION / INSTITUTION

IITGN Research Park

### OBJECTIVE

To establish the terms and conditions under which the Company and the Institute will function and act for the purpose of administering and managing the activities of the Research Park

Optimized Solutions Ltd, Ahmedabad

To setup their R&D activities at IITGN Research Park

Central Public Works Department, New Delhi

For CPWD to set up an R&D Cell at IITGN Research Park

Pal Rematerials India Pvt Ltd, Ahmedabad

To setup their R&D activities at IITGN Research Park

## REACHING OUT



### PROF JAIN INVITED AS THE CHIEF GUEST

**Prof Sudhir K Jain** was invited as the Chief Guest at the 4th Convocation of the School of Planning and Architecture, Vijayawada, on Sep 13, 2019. He also inaugurated some laboratories there.

### VISITOR'S CONFERENCE AT RASHTRAPATI BHAVAN

**Prof Sudhir K Jain** participated in the Visitor's Conference with IITs, NITs, and IIST organised by the Ministry of Human Resource Development at Rashtrapati Bhavan, New Delhi, on Nov 19, 2019. The conference was focused on best practices and challenges of Higher Education Institutions as per broad parameters of NIRF rankings.

### PROF JAIN CHAIRED A PANEL SESSION BY SICI

**Prof Sudhir K Jain** was invited as a Chair of the panel session on 'Expectations and Role of Governments in India-Canada Collaborative Opportunities'. The session was held on Day 1 of the Vice-Chancellors' & Presidents' Summit - 'Dynamics of Higher Education in India and Canada: Envisaging Greater Collaborations and Opportunities to Network', organised by the Shastri Indo-Canadian Institute (SICI) at New Delhi on Nov 25-26, 2019.







# SUPPORT FOR THE INSTITUTE

## CHAIRS AND SCHOLARSHIPS



### MAJOR GIFT FROM JIBABEN PATEL FOUNDATION

California based Jibaben Patel Foundation, headed by **Dr Jagdish Patel**, President and Director, has committed a large donation to IIT Gandhinagar Foundation (IITGNF) to create an endowment to support educational and research excellence at IITGN. This gift will be used to establish two Jibaben Patel Chairs at IITGN, one in Artificial Intelligence, which will be awarded to a faculty member pursuing scholarly work in the area of Artificial Intelligence; and the second Chair to recognise outstanding achievements of a faculty member in teaching, research and service to IITGN. Prof Shanmuganathan Raman and Prof Pratik Mutha have been appointed to the Chairs respectively for a period of three years. The Institute will also rename the '300 Auditorium' as the 'Jibaben Patel Memorial Auditorium' in honour of Dr Patel's mother. Dr Jagdish Patel is a retired radiologist physician. He was one of the first radiologists to pursue a fellowship in the emerging field of Diagnostic Ultrasound. Dr Patel is actively involved in supporting educational and healthcare endeavours in India and the US.



## RAMA RAO CHAIR AT IITGN



**Shri N R Narayana Murthy**, co-founder of Infosys has established the Rama Rao Chair at IITGN. This faculty chair will be set up in honour of

**Shri N Rama Rao**, late father of Shri N R Narayana Murthy. The chair is open to faculty members in the disciplines of Computer Science and Engineering, Electrical Engineering, Mathematics and Physics at IITGN. Shri N Rama Rao (1913-1974) spent most of his career as a high school teacher of physics, mathematics and English in Karnataka. Throughout his career, he demonstrated excellence in everything he did. He inspired his students and children to aim high in life. Mr Narayana Murthy has been instrumental in shaping the Indian IT sector and the global outsourcing model. He is also a recipient of the Thomas Jefferson medal, James C Morgan Global Humanitarian Award, Padma Shri and Padma Vibhushan.

## PROJECT ON HISTORY OF MATHEMATICS IN INDIA



IITGN has launched a major project on the 'History of Mathematics in India' (HoMI) with support of a major gift by **Mr Kris Gopalakrishnan**, co-founder and former CEO of Infosys. As a part of the project, IITGN will develop programmes, support research

scholars, conferences, publications, and so on, to broaden global awareness and understanding of the wide-ranging and seminal Indian contributions to number systems, geometry, algebra, trigonometry, and algorithmic methods. Mr Kris Gopalakrishnan was elected president of the Confederation of Indian Industries in 2013-2014 and served as one of the co-chairs of the World Economic Forum in Davos in January 2014. He was awarded the Padma Bhushan in 2011. As a first step towards the project, the institute organized an Advisory Council meeting on December 20, 2019, with 17 eminent scholars from India and abroad.

## ERACH AND MEHROO MEHTA MERIT SCHOLARSHIPS



**Mr Ruyintan (Ron) E Mehta** has set up several scholarships in honour of his departed parents **Shri Erach Mehta and Smt Mehroo Mehta**. The scholarships are open to the BTech students admitted at IIT Gandhinagar in AY 2019-20, AY 2020-21 and AY 2021-

22. The scholarship amount is Rs 2 lakh per student annually for a period of four years (subject to satisfactory academic progress every year), making the total amount of scholarship to Rs 8 lakh per student. Mr Ruyintan Mehta has been a serial entrepreneur in the plastics industry. He did BTech from IIT Bombay in 1970 and master's degree in Chemical Engineering from the University of Connecticut in 1972. Mr Mehta is passionate about giving back to the society and is an active supporter of Clean Drinking Water Plants (CDWP) in remote, impoverished villages in India.

## INDIRA FOUNDATION LEADERSHIP DEVELOPMENT INITIATIVE

**Mr Avi Nash**, a US-Based well-wisher of IITGN, has generously donated a major gift towards supporting a 3-year pilot project on 'Leadership Development Initiative' at IITGN, which is named as 'Indira Foundation Leadership Development Initiative'. Mr Avi Nash, President and Trustee of USA-based Indira Foundation, has more than 40 years of experience in the chemical industry, corporate finance and investing. He currently runs an investment management firm. Earlier, Mr Avi Nash was a Partner of Goldman Sachs & Co. where he helped lead the firm's Global Chemical Industry effort, playing an instrumental role in numerous mergers, acquisitions and initial public offerings. He holds an MBA from Northwestern University, and MS from Syracuse University, and a BTech in Chemical Engineering from IIT Bombay, which named him a distinguished alum.

## SANSKRIT CHAIR



**Dr Ushakant Thakkar** (Dr Kant Tucker) has set up the **Irma and Ushakant Thakkar Chair in Sanskrit Studies** at IITGN through the Dharma Civilization Foundation, to teach courses on Sanskrit language and literature.

The Chair will also support in inviting eminent scholars of Sanskrit to the Institute as visiting professors or scholar-in-residence for lectures, seminars and other scholarly endeavors. **Dr Ushakant Thakkar** is a Los Angeles area based Nephrologist and a philanthropist. He is Chairman of Dharma Civilization Foundation, a non-profit public charity based in Los Angeles, California. He also served on the faculty of UCLA, in the department of medicine. Dr Thakkar is a recipient of the "Spirit Award" in 2009, from the National Kidney Foundation, USA.

## VIKRAM SARABHAI CHAIR

Gujarat Council on Science and Technology (GUJCOST) has established Vikram Sarabhai Chair at IITGN to promote Interdisciplinary Research and Innovation in emerging areas of Science & Technology. The Chair will encourage and support various academic and research activities.

## SEEMA JAIN AND N K JAIN SCHOLARSHIPS



**Prof Sudhir K Jain** has set up two scholarships of Rs 1 lakh each, per year; one in honour of his late sister **Smt Seema Jain** and another in memory of his late father

**Shri N K Jain**. The scholarships are open to all the BTech students of IITGN with a minimum CPI of 6.5. The scholarship amount of Rs 1 lakh per scholarship is awarded to one student every year to support internships (international or domestic), special projects and opportunities, financial needs, etc.

## PROFESSOR NITISH THAKOR SCHOLARSHIP



**The Professor Nitish Thakor Scholarship** was instituted in the year 2019 and is open to all the BTech students. The scholarship amount is Rs 1 lakh per student per year and is awarded to one BTech student every year in order to support internships (international or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible.

**Prof Nitish Thakor** is currently a Provost's Chair Professor in the Department of Electrical and Computer Engineering at the National University of Singapore with a joint appointment to The Department of Bioengineering and the Department of Medicine. He has also been appointed Director of the University Level Neuro engineering research centre SINAPSE (Singapore Institute for Neurotechnology: Advancing through Partnership of Scientists and Engineering). Prof Thakor has been a Professor of Biomedical Engineering at the Johns Hopkins University since 1994 and has also co-founded four companies.

## BHAI SURESH MOHAN MITTAL SCHOLARSHIP AND BHAIR KRISHNA MOHAN MITTAL SCHOLARSHIP



These scholarships have been instituted by **Mr Sudhir M Mittal** in memory of his brothers, Mr Suresh Mohan Mittal and Mr Krishna Chandra Mittal, and are open to all BTech students at IITGN. Two scholarships of Rs 1 lakh each are provided every year to support internships (international

or domestic), special projects and opportunities, financial needs, etc. BTech students with a minimum CPI of 6.5 are eligible. Preference will be given to needy students. Mr Sudhir M Mittal is currently the Managing Director Sukriti Pvt Ltd, Ghaziabad. He did his BTech in Chemical Engineering from IIT Kanpur in 1970. He worked with Union Carbide for ten years. He switched from job to his own enterprise and set up a special wire manufacturing unit Sukriti Vidyut Udyog making silver and nickel-plated copper wires. Presently, more than 60% of the produce is exported to Europe, USA and the Far East. He actively pursues village and primary education. He is on the advisory committee of SIDBI Centre for Entrepreneurship Development at IIT Kanpur, and has frequently interacted with the IIT students as a mentor, who want to start their own venture.

## MATCHING GRANT FOR ALUMNI SCHOLARSHIP

**Mr Parimal Karani**, an Ahmedabad based businessman, contributed towards matching grant for alumni scholarships at the Institute. This scholarship grant will be combined with alumni donors' scholarship grants to support needy and deserving students of the Institute. It will also encourage young alumni to become donors at an early stage of their career. Mr Karani holds a BTech in Civil Engineering from IIT Bombay (1975 batch).

## DAYA SHANKER AND SHAKUNTALA SCHOLARSHIP



**Mr Akash Keshav Singh**, a BTech alumnus of 2015 batch, has instituted **Daya Shanker and Shakuntala**

**Scholarship** in honour of his parents. The scholarship is open to all BTech students and offers Rs 1 lakh to one BTech student every year to support internships, special projects and opportunities, financial needs, etc. Akash is currently associated with Arista Networks, Pune as a Business Development Executive. While at IITGN, he was the General Secretary of the Student Council and led Nyasa, a social outreach programme of IITGN for education of underprivileged kids.

## SHRI ONKARPRASAD TANDON SCHOLARSHIP



**Mr Akhilesh Gotmare**, a BTech alumnus of 2016 batch, has set up **Shri Onkarprasad Tandon Scholarship** in honour of his late maternal grandfather. The scholarship of Rs 1 lakh per

student per year is open to all BTech students and is awarded to one BTech student every year to support internships, special projects and opportunities, financial needs etc. After completing his BTech, Akhilesh pursued his Masters in Computer Science at École Polytechnique Fédérale de Lausanne (EPFL) in Switzerland. He is currently a Machine Learning Researcher with Salesforce Research in Singapore.

# DONORS LIST

NAME	CATEGORY	CITY
<b>RS 1 CRORE - RS 4,99,99,999</b>		
Dharma Civilization Foundation	Well-wisher	Los Angeles, USA
Jibaben Patel Foundation	Well-wisher	California, USA
Maker Bhavan Foundation	Well-wisher	Washington DC, USA
N R Narayana Murthy	Well-wisher	Bengaluru
Kiran & Pallavi Patel	Well-wisher	Tampa, Florida, USA
Gujarat Council on Science and Technology	Well-wisher	Gandhinagar

## RS 25,00,000 - RS 99,99,999

Navin and Pratima Doshi	Well-wisher	Los Angeles, USA
Indira Foundation	Well-wisher	New Jersey, USA
Senapathy Gopalakrishnan	Well-wisher	Bengaluru
Tata Motors	Well-wisher	Mumbai

## RS 5,00,000 - RS 24,99,999

Akash Keshav Singh	BTech/ME/2015	Kushinagar
Desai Foundation	Well-wisher	Bedford, USA
Wheels India Niswarth Foundation	Well-wisher	USA
Milacron India Pvt Ltd	Well-wisher	Ahmedabad
Nutanix Technologies India Pvt Ltd	Well-wisher	Bengaluru
Rugjintan Mehta	Well-wisher	New Jersey, USA
Sudhir Mittal	Well-wisher	Ghaziabad
Haresh Shah	Well-wisher	USA
Radix Electro Systems Pvt Ltd	Well-wisher	Mumbai
Sumanben Charitable Trust	Well-wisher	Mumbai
R A Venkitachalam	Well-wisher	Gandhinagar

## RS 1,00,000 - RS 4,99,999

Luv Gupta	BTech/CL/2012	San Francisco, USA
Anchit Gaurav	BTech/ME/2012	Navi Mumbai
Avinash Tumkur	BTech/ME/2014	USA
Akshay Randad	BTech/ME/2015	USA
Sai Chowdary Gullapally	BTech/EE/2016	Boston, USA
Sudhir K Jain	Faculty	Gandhinagar
D P Roy	Faculty	Gandhinagar
Chandrakant Desai	Well-wisher	Tucson, USA
Omega Elevators	Well-wisher	Ahmedabad
Atlas Foundation	Well-wisher	Ahmedabad
Ramesh Gaonkar	Well-wisher	New York, USA
Sant Das Gupta	Well-wisher	Virginia, USA
Raj Mashruwala	Well-wisher	Palo Alto, USA
Rounak Mehta	Well-wisher	San Francisco, USA
Kumar Ritesh Ranjan	Well-wisher	Bengaluru
G V Rao	Well-wisher	Hyderabad
Raj Shah	Well-wisher	California, USA
Nitish Thakor	Well-wisher	Clarksville, USA
Yuva Unstoppable	Well-wisher	Ahmedabad

## RS 25,000 - RS 99,999

Adit Bhardwaj	BTech/EE/2014	USA
Akhilesh Deepak Gotmare	BTech/EE/2016	Nagpur
Neeraj Kumar	PhD/HSS/2014	Gandhinagar
Manish Jain	Faculty	Gandhinagar
Raghvan K	Faculty	Gandhinagar
Harish P M	Faculty	Gandhinagar
S P Mehrotra	Faculty	Gandhinagar
Neeldhara Misra	Faculty	Gandhinagar
R Sharan	Faculty	Gandhinagar
Malathi Lakshmi Kumarian	Well-wisher	New Delhi
Gaurav Sant	Well-wisher	Los Angeles, USA

## RS 5,000 - RS 24,999

Yogesh Goyal	BTech/CL/2012	USA
Kundan Suguru	BTech/EE/2012	Hyderabad
Rahul Kawadkar	BTech/EE/2012	Nagpur
Sushmitha Yalla	BTech/EE/2012	Washington, USA
Tanmay Hiralal Balwa	BTech/ME/2012	Bengaluru
Chetas Joshi	BTech/EE/2013	San Francisco, USA
Rajat Jain	BTech/ME/2013	Jaipur

NAME	CATEGORY	CITY
Mohak Patel	BTech/ME/2013	USA
Shyamal Kishore	BTech/ME/2013	Kingston, USA
Pranav Bagaria	BTech/CL/2014	USA
Sri Harsha Nuthalapati	BTech/CL/2014	USA
Smit Alkesh Shah	BTech/CL/2014	USA
Shashank Tyagi	BTech/EE/2014	USA
Rakesh Pargi	BTech/ME/2014	Rajasthan
Nihar Kotak	BTech/ME/2014	Troy, Michigan, USA
Dhwanil Shukla	BTech/ME/2014	Jaipur
Shaurya Seth	BTech/CL/2015	USA
Mihika Nitin Shah	BTech/CL/2015	Mumbai
Nandan Vora	BTech/CL/2015	USA
Tushti Shah	BTech/CL/2015	USA
Rohan Patidar	BTech/EE/2015	Neemuch
Rounak Mehta	BTech/ME/2015	San Francisco, USA
Aashrith Saraswathibhatla	BTech/ME/2015	USA
Ankit Pandole	BTech/CL/2016	Bengaluru
Chinmay Ajnadkar	BTech/EE/2016	USA
Rakesh Ranjan	BTech/ME/2016	Bihar
Jithin Prabha	BTech/ME/2016	USA
Nirmal J Nair	BTech/ME/2016	Kerala
Manu Chaudhary	BTech/CE/2017	Rajasthan
Prerna Singh	BTech/CE/2017	Atlanta, USA
Suman Kumari	BTech/CL/2017	USA
Aatman Chandresh Vora	BTech/EE/2017	Mumbai
Ankit Agarwal	BTech/ME/2017	Delhi
Bhargav Bipinbhai Chauhan	BTech/ME/2017	Rajkot
Ahamed Naji Shaham	BTech/ME/2018	Kerala
Ankita Joshi	BTech/MSE/2018	Ann Arbor, USA
Kartik Mandlekar	BTech/CE/2019	Chennai
Avinash Singh Soda	BTech/CE/2019	Gandhinagar
Harsh Mukesh Madhyam	BTech/CL/2019	Mumbai
Saksham Singal	BTech/ME/2019	Gandhinagar
Ujjval Ashokkumar Pamnani	MSc/CG/2015	Ahmedabad
Kinley Mehra	MSc/CG/2015	Torrington, USA
Shobhit Kakaria	MSc/CG/2018	Agra
Nidal Raj Bhuria	MTech/CE/2013	Jammu & Kashmir
Arun Gopalakrishnan Nair	MTech/EE/2014	Kerala
Hritwick Banerjee	MTech/EE/2014	Stuttgart
Swasti Medha	MTech/CL/2016	Dhanbad
Kritika Dixit	MTech/CL/2016	Kanpur
Sanjay Kumar	MTech/ME/2016	Vastrapur
Ishita Doshi	MTech/CS/2019	Gandhinagar
Neeraj Dhull	PGDIIT/EE/2017	Haryana
Alpana Thorat	PhD/CL/2016	West Lafayette, Indiana
Pooja Susan Thomas	PhD/HSS/2016	Ahmedabad
Siddharth Vijay Kulkarni	PhD/CL/2017	Mumbai
Vikram Ashok Karde	PhD/CL/2017	Maharashtra
Awaneesh Upadhyay	PhD/CL/2018	USA
Chandrakumar Appayee	Faculty	Gandhinagar
Atul Bhargav	Faculty	Gandhinagar
Mohan Joshi C	Faculty	Gandhinagar
Arup Lal Chakraborty	Faculty	Gandhinagar
Vinod Chandra	Faculty	Gandhinagar
Nishaant Choksi	Faculty	Gandhinagar
Sameer V Dalvi	Faculty	Gandhinagar
Anirban Dasgupta	Faculty	Gandhinagar
Atul Dixit	Faculty	Gandhinagar
Nithin V George	Faculty	Gandhinagar
Mohan C Joshi	Faculty	Gandhinagar
Jooyoung Kim	Faculty	Gandhinagar
Sharmistha Majumdar	Faculty	Gandhinagar
Superb Mishra	Faculty	Gandhinagar
Nihar Ranjan Mohapatra	Faculty	Gandhinagar
Vinod Narayanan	Faculty	Gandhinagar
R R Puri	Faculty	Gandhinagar
Ajanta Sachan	Faculty	Gandhinagar
Sudhanshu Sharma	Faculty	Gandhinagar
Karla Patricia Mercado Shekhar	Faculty	Gandhinagar
Rishi N Singh	Faculty	Gandhinagar



NAME	CATEGORY	CITY
Meera Mary Sunny	Faculty	Gandhinagar
Jagmohan Tyagi	Faculty	Gandhinagar
Akshaa Vatswani	Faculty	Gandhinagar
T S Kumbar	Librarian	Gandhinagar
Divyngani Natvarbhai Chaudhari	Staff	Gandhinagar
Jayakumar Nandagopal	Staff	Gandhinagar
K Srinivasa Murthy	Staff	Gandhinagar
L P Srivastava	Staff	Gandhinagar
Meena Joshi	Staff	Gandhinagar
Pijush Majumdar	Staff	Ahmedabad
Santosh Raut	Staff	Gandhinagar
Sunita Menon	Staff	Gandhinagar
Amit Goel	Well-wisher	Panchkula
Rajesh Gandhi	Well-wisher	Mumbai
Minesh Kinkhabwala	Well-wisher	New Jersey, USA
Ram Misra	Well-wisher	Montville, USA
Aditya Pathak	Well-wisher	USA
Balkrishna B Soneji	Well-wisher	Ahmedabad
Chandra Srivastava	Well-wisher	New Jersey, USA

### UPTO RS 4,999

Abhishek Umrao	BTech/CL/2012	Uttar Pradesh
Kanchan Patel	BTech/CL/2012	Bengaluru
Puneethpaniyadi	BTech/CL/2012	Karnataka
Sahil Garg	BTech/CL/2012	USA
Shaikh Siddhikh Hussain	BTech/EE/2012	Telangana
Nitesh Gupta	BTech/EE/2012	Faridabad
Kajori	BTech/EE/2012	Guwahati
Perit Terway	BTech/EE/2012	USA
Kaustubh Kapure	BTech/ME/2012	Maharashtra
Abhik Patel	BTech/ME/2012	Surat
Darshita Jain	BTech/ME/2012	Gandhinagar
Ajay Mohan	BTech/ME/2012	Thiruvananthapuram
Swati Verma	BTech/ME/2012	Anand
Puneeth Chakravarthula	BTech/ME/2012	USA
Ajinkya Kulkarni	BTech/ME/2012	Nashik
Nikhil Haridas	BTech/ME/2012	Thrissur
Divya Bansal	BTech/CL/2013	Rajasthan
Garima Raghuwanshi	BTech/CL/2013	Madhya Pradesh
Sanjay Kumar Meena	BTech/CL/2013	Madhya Pradesh
Adit Gupta	BTech/CL/2013	Navi Mumbai
Rahul Pancholi	BTech/CL/2013	Rajasthan
Nagender Singh	BTech/CL/2013	Meerut
Arth Patel	BTech/CL/2013	Ahmedabad
Shrankhla Narya	BTech/CL/2013	USA
Shruti Jain	BTech/CL/2013	Boise, Idaho, USA
Susmitha P Kotu	BTech/CL/2013	USA
Pritish Jain	BTech/EE/2013	Chennai
Abhilash Chowdary Bobbur	BTech/EE/2013	Hyderabad
Mohit Malu	BTech/EE/2013	Telangana
Suraj Sonker	BTech/EE/2013	Uttar Pradesh
Ekta Prashnani	BTech/EE/2013	Santa Barbara, USA
Shashank Naphade	BTech/EE/2013	San Francisco, USA
Vipul Goyal	BTech/EE/2013	USA
Dhruv Chokshi	BTech/EE/2013	Mumbai
Bhavin Chauhan	BTech/ME/2013	Gujarat
Ravi Agarwal	BTech/ME/2013	Rajasthan
Harikrishnan CB	BTech/ME/2013	Mumbai
Ajinkya Dahale	BTech/ME/2013	USA
Yash Shah	BTech/ME/2013	San Francisco, USA
Prashant Patel	BTech/ME/2013	Jaipur
Sanjay Saroj	BTech/CL/2014	Navi Mumbai
Hoossein Safdari	BTech/EE/2014	Indore
Rajesh Kumar Jangid	BTech/EE/2014	Rajasthan
Yash Kotak	BTech/EE/2014	Bengaluru
Sandesh Sanjay Achari	BTech/EE/2014	Pune
Sushrut Pramod Meshram	BTech/EE/2014	Nagpur
Sanjay Meena	BTech/EE/2014	Rajasthan
Sunil Nair	BTech/EE/2014	USA
Dharm Ratna Baudh	BTech/EE/2014	Lucknow
Amit Sahu	BTech/ME/2014	Hoshangabad
Poonam Chand Meena	BTech/ME/2014	Chittaurgarh
Mangesh Gangarde	BTech/ME/2014	Ahmednagar
Saurabh Garg	BTech/ME/2014	Haryana

NAME	CATEGORY	CITY
Ajay Chandubhai Vora	BTech/ME/2014	Gujarat
Navneet Meena	BTech/ME/2014	Karauli
Shubham Bhargav	BTech/ME/2014	USA
Shubhangi Shamsundar Bansude	BTech/ME/2014	Osmanabad
Rahul Khandait	BTech/CL/2015	Maharashtra
Chetan Patil	BTech/CL/2015	Maharashtra
Dhruv Pancholi	BTech/CL/2015	Surat
Sukriti Gakhar	BTech/CL/2015	Davis, California, USA
Abhishek Singh	BTech/EE/2015	Unnao
Mukesh Singh Rawat	BTech/EE/2015	Rajkot
Abhishek Soni	BTech/EE/2015	Bihar
Parth Sane	BTech/EE/2015	Mumbai
Manoj Kumar	BTech/EE/2015	Rajasthan
Shisode Sushilkumar Rajendra	BTech/EE/2015	Maharashtra
Dave Ujash Rameshwar	BTech/EE/2015	Ahmedabad
Himanshu Yadav	BTech/EE/2015	Haryana
Preet Devang Shah	BTech/EE/2015	Mumbai
Eepsit Tiwari	BTech/ME/2015	Gandhinagar
Sachchit Kalyan Vekaria	BTech/ME/2015	Bengaluru
Agush Choudhary	BTech/ME/2015	Indore
Shreyans Nahar	BTech/ME/2015	Maharashtra
Abhay C A	BTech/ME/2015	Kerala
Vivek Prakash	BTech/ME/2015	Jamshedpur
Ronak Khandelwal	BTech/ME/2015	Indore
Ajay Devedwal	BTech/ME/2015	Delhi
Anshul Gupta	BTech/ME/2015	Agra
Aryan	BTech/ME/2015	Bengaluru
Soham Ravindra Harshe	BTech/ME/2015	Maharashtra
Vivek Maida	BTech/CL/2016	Rajasthan
Sunil Sahra	BTech/CL/2016	Mumbai
Kunal Ramkishun Chaudhary	BTech/CL/2016	Mumbai
Prashant Shekhar	BTech/CL/2016	Chennai
Yashodeep Chavhan	BTech/CL/2016	Maharashtra
Palak Sadani	BTech/CL/2016	New Delhi
Nishit Shetty	BTech/CL/2016	USA
Lavdeep Kaur	BTech/CL/2016	Rajasthan
Manjot Singh	BTech/CL/2016	Bengaluru
Chitranshu Kumar	BTech/EE/2016	Etawah
Ajinkya Tupkar Jain	BTech/EE/2016	Indore
Abhishek Ranjan	BTech/EE/2016	Jharkhand
Alok Singh	BTech/EE/2016	Allahabad
Dipen Somani	BTech/EE/2016	Himatnagar
Naman Singh	BTech/EE/2016	Rajasthan
Deygam Avinash	BTech/EE/2016	Andhra Pradesh
Medaramatla Sidhartha Reddy	BTech/EE/2016	Bengaluru
Gaurav Gupta	BTech/EE/2016	Mumbai
Rajesh Kumar Meena	BTech/EE/2016	Rajasthan
Shubham Pachori	BTech/EE/2016	Bhopal
Yash Sanjay Mehta	BTech/EE/2016	Houston, USA
Ashish Kumar Gupta	BTech/EE/2016	Ahmedabad
Kushal Salecha	BTech/EE/2016	Bengaluru
Raj Shekhar	BTech/EE/2016	Allahabad
Veerabadra Lokesh Paturu	BTech/EE/2016	Andhra Pradesh
Shashank Nigam	BTech/ME/2016	Guna
Yash Pratap Singh	BTech/ME/2016	Agra
Hira Lal	BTech/ME/2016	Jalore
Karan Palaskar	BTech/ME/2016	Aurangabad
Mihir Milind Bhalerao	BTech/ME/2016	Pune
Om Vijay Margaj	BTech/ME/2016	Aurangabad
Parag Jayant Chitnis	BTech/ME/2016	Aurangabad
Pranshu Saini	BTech/ME/2016	Mandi
Rahul Kumar Pandey	BTech/ME/2016	Mumbai
Sai Ravi Teja KVN	BTech/ME/2016	Guntur
Samarth Sanjiv Vajjanapurkar	BTech/ME/2016	Surat
Gaurav Sharma	BTech/ME/2016	Gandhinagar
Mayank Jain	BTech/CE/2017	Shivpuri
Shailendra Kumar	BTech/CE/2017	Rajasthan
Akash Goud Sakkari	BTech/CE/2017	Telangana
Rishabh Jain	BTech/CE/2017	Narwana
Dharmendra Kumar	BTech/CE/2017	Bihar
Sourabh Soni	BTech/CL/2017	Bikaner
Harsh Khandelwal	BTech/CL/2017	Ahmedabad
Kushagra Bhargava	BTech/CL/2017	Rajasthan

NAME	CATEGORY	CITY	NAME	CATEGORY	CITY
Ashray Amarnath Adappa	BTech/CL/2017	Goa	Amit Bhongade	BTech/EE/2018	Madhya Pradesh
Kesani Kalyani	BTech/CL/2017	Telangana	Sanket Rajesh Duthade	BTech/EE/2018	Maharashtra
Rajat Kumar Gupta	BTech/CL/2017	Uttar Pradesh	Himanshu Goswami	BTech/EE/2018	Rajasthan
Sargam Jain	BTech/CL/2017	Jalore	Anmol Gaur	BTech/EE/2018	Beawar
Rushabh Pravin Desadla	BTech/CL/2017	Pune	Vikas Kumar Meena	BTech/EE/2018	Rajasthan
Suman Kumar Singh	BTech/CL/2017	Bihar	Himanshu Pal	BTech/EE/2018	Uttar Pradesh
Devanshu Manoj Jain	BTech/CL/2017	Vadodara	Chinmay Shirpurkar	BTech/EE/2018	Florida, USA
Akshay Kumar Verma	BTech/CL/2017	Nashik	Vasudev Gohil	BTech/EE/2018	USA
Dewansh Rastogi	BTech/CL/2017	Amethi	Aditya Goel	BTech/EE/2018	Vadodara
Priyanka	BTech/CL/2017	New Delhi	Ayushman Tripathi	BTech/EE/2018	New Delhi
Priyanka Bansal	BTech/CL/2017	New Delhi	Kapil Sharma	BTech/ME/2018	Gurugram
Purushottam Kumar	BTech/CL/2017	Bihar	Vismay Dilipkumar Vakharia	BTech/ME/2018	Jamnagar
Ramniwas	BTech/CL/2017	Panipat	Pinank Kishorbhai Patel	BTech/ME/2018	Ahmedabad
Krishna Sai Vootla	BTech/EE/2017	Kadapa	Solleti Goutham	BTech/ME/2018	Andhra Pradesh
Rushi Nilesh Jariwala	BTech/EE/2017	Mumbai	Vinod Ramakrishnan	BTech/ME/2018	La Jolla, California, USA
Lokesh Singh	BTech/EE/2017	Rajasthan	Venu Gopal Agarwal	BTech/ME/2018	Uttarakhand
Chenchala Sai Ramana Reddy	BTech/EE/2017	Telangana	Yash Bohre	BTech/ME/2018	Gopalganj
Kshitij Singh	BTech/EE/2017	Uttar Pradesh	Darshil Chauhan	BTech/ME/2018	USA
Goel Pratham Rajkumar Saroj	BTech/EE/2017	Mumbai	Prasanna Sanjay Raut	BTech/ME/2018	USA
Manav Raj	BTech/EE/2017	Bihar	Udit Surendra Relan	BTech/ME/2018	USA
Pabbathi Akhil Kumar	BTech/EE/2017	Telangana	Modi Harsh Jashvantbhai	BTech/ME/2018	Mehsana
Namana Naga Sindhu	BTech/EE/2017	Andhra Pradesh	Singampalli Sai Rohit	BTech/ME/2018	Andhra Pradesh
Dinu Tomar	BTech/EE/2017	Vadodara	Trivedi Jaldhir Sanjay	BTech/ME/2018	Vadodara
Shashank Mehra	BTech/EE/2017	Rajasthan	Deepak Dhariwal	BTech/MSE/2018	Rajasthan
Sakshi Yadav	BTech/EE/2017	Rajasthan	Aditya Kumar Gupta	BTech/MSE/2018	Bihar
Shah Aditya Suresh	BTech/EE/2017	Mumbai	Bhupendra Kumar	BTech/MSE/2018	Rajasthan
Puja Kumari	BTech/EE/2017	Bihar	Kotamsetti Ravi Teja	BTech/MSE/2018	Andhra Pradesh
Niharika	BTech/EE/2017	Bihar	Zainab Patel	BTech/MSE/2018	Seattle, USA
Rajendra Singh	BTech/EE/2017	Rajasthan	Aishwary Omkar	BTech/CE/2019	Madhya Pradesh
Vipin Prajapati	BTech/EE/2017	Rajasthan	Ankit Ghanghas	BTech/CE/2019	Haryana
Vyas Samir	BTech/EE/2017	Rajkot	Anshul Yadav	BTech/CE/2019	Jaipur
K Lokeshwar Naik	BTech/EE/2017	Chennai	Anurag Dheban	BTech/CE/2019	Rajasthan
Ekta Umesh Samani	BTech/EE/2017	Kolhapur	Chaudhari Divya Jeevraj	BTech/CE/2019	Aurangabad
Aditya Ganesh	BTech/EE/2017	Navi Mumbai	Choudhary Saurabh Sunil	BTech/CE/2019	Maharashtra
Aravind Damacharla	BTech/EE/2017	Andra Pradesh	Honey Kumar Singla	BTech/CE/2019	Bathinda
Rishab Anand	BTech/EE/2017	Gandhinagar	Maya Kumari	BTech/CE/2019	Jaipur
Praveen Pandey	BTech/ME/2017	Deoria	Naman Jain	BTech/CE/2019	Rajasthan
Rohit Nanavati	BTech/ME/2017	Surat	Nikesh Panwar	BTech/CE/2019	Rajasthan
Anurag Agrawal	BTech/ME/2017	Uttar Pradesh	Pushpak Kailas Baviskar	BTech/CE/2019	Maharashtra
Sayyed Salman	BTech/ME/2017	Madhya Pradesh	Pushpender Kumar Kuntal	BTech/CE/2019	Uttar pradesh
Devendra Meena	BTech/ME/2017	Rajasthan	Rahul Kumar Saini	BTech/CE/2019	Rajasthan
Shubham Patle	BTech/ME/2017	Madhya Pradesh	Rohit Kumar	BTech/CE/2019	Nawada
Vaibhav Gupta	BTech/ME/2017	Uttar Pradesh	Sachin Kumar Meena	BTech/CE/2019	Jaipur
Sharad Kumar Tiwari	BTech/ME/2017	Madhya Pradesh	Sai Kiran Bojja	BTech/CE/2019	Visakhapatnam
Suryakumar	BTech/ME/2017	Maharashtra	Sareem Sandeep	BTech/CE/2019	Asansol
Ankit Mittal	BTech/ME/2017	Rajasthan	Satya Prakash	BTech/CE/2019	Nalanda
Bhagat Rajan Balister	BTech/ME/2017	Pune	Siddhant Gulechha	BTech/CE/2019	Rajasthan
Amber Kothari	BTech/ME/2017	Nashik	Sushant Kumar	BTech/CE/2019	Jamalpur
Anusha Gupta	BTech/CE/2018	Raipur	Tarun Sharma	BTech/CE/2019	Indore
Dinesh Anil Borse	BTech/CE/2018	Aurangabad	Vishal Kumar Sinha	BTech/CE/2019	Jharkhand
Abhay Varshney	BTech/CE/2018	Uttar pradesh	Gopal Singh	BTech/CE/2019	Rajasthan
Devanand	BTech/CE/2018	Bihar	Pulkit Singhal	BTech/CE/2019	Rajasthan
Ram Pranav Agasthya Purhit Chavaly	BTech/CE/2018	Mumbai	Khushdeep Singh	BTech/CE/2019	Patiala
Yashwanth R Kumar	BTech/CE/2018	Telangana	Puneet Swami	BTech/CE/2019	USA
Ajay Singh Shekhawat	BTech/CE/2018	Jodhpur	Kushal Agrawal	BTech/CE/2019	Indore
Kamlesh Choudhary	BTech/CE/2018	Rajasthan	Lavalesh Kumar Bajpayee	BTech/CE/2019	Gandhinagar
Prakrut Kansara	BTech/CE/2018	South Carolina, USA	Aditi Sharma	BTech/CL/2019	Chennai
Anmol Kishore Raina	BTech/CE/2018	Jammu	Akash Pallath	BTech/CL/2019	Philadelphia, USA
Homit Singh Pal	BTech/CE/2018	New Delhi	Ankit Singh	BTech/CL/2019	Mumbai
Pranav Kumar Gupta	BTech/CE/2018	Rajasthan	Anusha Kamath M	BTech/CL/2019	Bengaluru
Mukul Tyagi	BTech/CL/2018	Noorpur	Gautam Deepti Sanjeevkumar	BTech/CL/2019	Ahmedabad
Mayuresh Hiren More	BTech/CL/2018	Palghar	Kavish Kumar	BTech/CL/2019	Ahmedabad
Apurva Potturu	BTech/CL/2018	Andhra Pradesh	Navpreet Singh	BTech/CL/2019	Ludhiana
Bhaskar Jyoti Saikia	BTech/CL/2018	Assam	Nayak Kanakkumar	BTech/CL/2019	Banaskantha
Himanshu Jaswant Singh Chauhan	BTech/CL/2018	Maharashtra	Prateek Verma	BTech/CL/2019	Bengaluru
Parash Aggarwal	BTech/CL/2018	Rajasthan	Priyanka	BTech/CL/2019	Gandhinagar
Setti Satya Sai Venkata Ravi Teja	BTech/CL/2018	Andhra Pradesh	Priyanshu Ranjan Gupta	BTech/CL/2019	Mumbai
Ayush Mathur	BTech/CL/2018	Rajasthan	Raveena	BTech/CL/2019	Rajasthan
Badri Vishal Meena	BTech/CL/2018	Kushinagar	Shah Atmin Shitalbhai	BTech/CL/2019	Ahmedabad
Mridul Pareek	BTech/CL/2018	Rajasthan	Shiv Kumar	BTech/CL/2019	Gandhinagar
Roy Nikhil Aditya	BTech/CL/2018	Mumbai	Siddharth Sheshadri K	BTech/CL/2019	Chennai
Ashim Raj Konwar	BTech/EE/2018	New Delhi	Tanikella Sri Savya	BTech/CL/2019	Akkayyapalem
Yashovardhan	BTech/EE/2018	Mumbai	Yashasvi Modi	BTech/CL/2019	Gandhinagar

NAME	CATEGORY	CITY
Ankur Yadav	BTech/CL/2019	Khargone
Rajat Goel	BTech/CL/2019	Noida
Parth Patel	BTech/CL/2019	Ghodasar
Ankur Singh	BTech/CL/2019	Ranchi
Puroshotam Garg	BTech/CL/2019	Rajasthan
Suresh Kumar	BTech/CL/2019	Haryana
Vijendra Maurya	BTech/CL/2019	Gandhinagar
Aditi Singh	BTech/EE/2019	Durgapur
Aditya Anand	BTech/EE/2019	Uttar Pradesh
Ajay	BTech/EE/2019	Mumbai
Anand Yadav	BTech/EE/2019	Uttar pradesh
Ansh Joshi	BTech/EE/2019	Indore
Anusha Rajendra Malani	BTech/EE/2019	Mumbai
Aparna N Tumkur	BTech/EE/2019	Mumbai
Arik Pamnani	BTech/EE/2019	Lucknow
Battu Deepak	BTech/EE/2019	Hyderabad
Chauhan Anand Yashvantbhai	BTech/EE/2019	Ahmedabad
Hardeep	BTech/EE/2019	Haryana
Jagdish Choudhary	BTech/EE/2019	Rajasthan
Koda Dinesh Kumar	BTech/EE/2019	Andhra Pradesh
L Madhulika	BTech/EE/2019	Hyderabad
Mandlem Manikanta	BTech/EE/2019	Hyderabad
Samarth Kathal	BTech/EE/2019	Madhya Pradesh
Shah Harshil Kalpeshkumar	BTech/EE/2019	Ahmedabad
Shipra Mohan	BTech/EE/2019	Varanasi
Shivdutt Sharma	BTech/EE/2019	Haryana
Swathi S G	BTech/EE/2019	Andhra Pradesh
Tejas Nimeshchandra Mehta	BTech/EE/2019	Mumbai
Veeramallu Giridhar Sai	BTech/EE/2019	Andhra Pradesh
Navin Kumar	BTech/EE/2019	Bihar
Ritesh Kumar	BTech/EE/2019	Mumbai
Arshdeep Singh Brar	BTech/ME/2019	Sri Ganganagar
Ayaz Lakhani	BTech/ME/2019	Vadodara
Badve Prathamesh Mahesh	BTech/ME/2019	Maharashtra
Bhattad Varun Rajkumar	BTech/ME/2019	Akola
Dsouza Alrick Cyril	BTech/ME/2019	Thane
Jagmohan	BTech/ME/2019	Gurgaon
Lahane Yogesh Ratnakar	BTech/ME/2019	Nagpur
Mihir Hitendra Salot	BTech/ME/2019	Bharuch
Naveen M	BTech/ME/2019	Chennai
Rahul Bharti	BTech/ME/2019	Mehsana
Rahul Kumar	BTech/ME/2019	Uttar pradesh
Rahul Meena	BTech/ME/2019	Rajasthan
Rishabh Bhattacharya	BTech/ME/2019	Vadodara
Rushali Atul Prakash Saxena	BTech/ME/2019	Thane
Saeed Aamer	BTech/ME/2019	Hyderabad
Sandeep Kumar Yadav	BTech/ME/2019	Uttar pradesh
Santhosh S	BTech/ME/2019	Chennai
Saurav Nagar	BTech/ME/2019	Indore
Shashi Mohan Singh	BTech/ME/2019	Uttar Pradesh
Shikhar Rajput	BTech/ME/2019	Madhya Pradesh
Tushar Pareek	BTech/ME/2019	Ajmer
Vaibhav Mittal	BTech/ME/2019	Raipur
Vikalp Lanjewar	BTech/ME/2019	Bhopal
Rajat Ranjan	BTech/ME/2019	Gandhinagar
Sonar Chinmay Narendra	BTech/ME/2019	Maharashtra
Yash Patel	BTech/ME/2019	Chennai
Aagam Rajeev Shah	BTech/MSE/2019	Maharashtra
Abhiroop Mishra	BTech/MSE/2019	Bhopal
Ayush Gupta	BTech/MSE/2019	Kanpur
Dudhat Kunal Hansraj	BTech/MSE/2019	Ahmedabad
Gyan Chand Maurya	BTech/MSE/2019	Rajasthan
Sisara Pratikkumar Dhirubhai	BTech/MSE/2019	Surat
Tulasi Narendra Das Tripurana	BTech/MSE/2019	Andhra Pradesh
Aman Kamlesh Singh	BTech/MSE/2019	West Bengal
Jammu Tarun Kumar	BTech/MSE/2019	West Bengal
Priyadarshi Priyang Dineshbhai	BTech/MSE/2019	Ahmedabad
Gameti Nirav	BTech/CL/2020	Gandhinagar
Ratna B Bharti	MA/HSS/2016	Telangana
Aakrati Vinod Gupta	MA/HSS/2016	Ahmedabad
Arun Krishna	MA/HSS/2016	Thrissur
Rajan Varghese	MA/HSS/2016	Kerala
Tushar Meshram	MA/HSS/2016	Bengaluru
Oza Bhargav Hiren	MA/HSS/2016	Rajkot

NAME	CATEGORY	CITY
Mujeebu Rahman	MA/HSS/2017	Kerela
Khobragade Prateek Pawankumar	MA/HSS/2017	Pune
Pushpakraj S S	MA/HSS/2017	Vadodara
Dutta Ritik	MA/HSS/2017	Vadodara
Ayush Singh	MA/HSS/2017	Vadodara
Rohit Revi	MA/HSS/2017	USA
Aastha Soni	MA/HSS/2018	Chhattisgarh
Paragnee S	MA/HSS/2018	Delhi
Swara Diptesh Joshi	MA/HSS/2018	Ahmedabad
Arundhathy B	MA/HSS/2018	Kerala
Ajin K Thomas	MA/HSS/2019	Kerala
Anupam Sharma	MA/HSS/2019	Assam
Anuracti Sharma	MA/HSS/2019	Mumbai
Anushka Mukherjee	MA/HSS/2019	Kolkata
Heisnam Olivia Devi	MA/HSS/2019	Manipur
Janaki R Nair	MA/HSS/2019	Kollam
Kadeeja Nourah B H	MA/HSS/2019	Calicut
Medha Deshpande	MA/HSS/2019	Bengaluru
Omi Kumari	MA/HSS/2019	Jharkhand
Pankaj Tiwari	MA/HSS/2019	Balrampur
Ramesh N	MA/HSS/2019	Chennai
S S Isaiamudhu	MA/HSS/2019	Madurai
Sakshi Sunil Soni	MA/HSS/2019	Ahmedabad
Shreya Sen	MA/HSS/2019	Kolkata
Suhair K K	MA/HSS/2019	Kerala
Suyash Dhanvir Pasi	MA/HSS/2019	Ahmedabad
Tanvi Jain	MA/HSS/2019	Haryana
Verma Piyusha Ramashanker	MA/HSS/2019	Vadodara
Tanmay Jain	MA/HSS/2019	Haryana
Bhanoth Vishnu Sai	MA/HSS/2019	Vadodara
Utkarsh Nanda	MA/HSS/2019	Gandhinagar
Prankush Agarwal	MA/HSS/2019	Gandhinagar
Vishesh Roy	MA/HSS/2019	Meerut
Tella Selva Sowmya Rani	MA/HSS/2019	Hyderabad
Anas Ali	MA/HSS/2019	Jhansi
Kaushik	MA/HSS/2019	Vadodara
Revanth Ratna Kireeti Karri	MA/HSS/2019	Vadodara
Dhruv Bukinkere	MA/HSS/2019	Haryana
Arya P Adityan	MA/HSS/2019	Kerala
Dalia N	MA/HSS/2019	Gandhinagar
Aditya Singh	MSc/CG/2015	Bengaluru
Sampada Chandrashekhar Gharpure	MSc/CG/2015	Pune
Goldy Yadav	MSc/CG/2015	New Delhi
Palash Jana	MSc/CH/2015	Medinipur
Khyati Relhan	MSc/CH/2015	New Delhi
Amarijyoti Das Mahapatra	MSc/CH/2015	Kushinagar
Ekta	MSc/MA/2015	Haryana
Shivam Dhama	MSc/MA/2015	Meerut
Vipul V Nair	MSc/CG/2016	Kerala
Devu Mahesan	MSc/CG/2016	Kerala
Rakhi	MSc/CG/2016	Jharkhand
Midhula Chandran	MSc/CG/2016	USA
Jagini Kishore Kumar	MSc/CG/2016	Telangana
Karthikeyan Palaniswamy	MSc/CG/2016	Gandhinagar
Kanchan	MSc/CH/2016	Delhi
Payal Arora	MSc/CH/2016	Rewari
Amit Pahel	MSc/CH/2016	Jhajjar
Kartik Kumar	MSc/MA/2016	Saharanpur, UP
Nitesh Kumar	MSc/MA/2016	Haryana
Vipin Kumar	MSc/MA/2016	Ghaziabad
Aarti Bansal	MSc/MA/2016	Harayana
Pritam Nanda	MSc/PH/2016	West Bengal
Harish Madhok	MSc/PH/2016	Jaipur
Nisha	MSc/PH/2016	Gandhinagar
Bharatesh Rayappa Shiraguppi	MSc/CG/2017	Belgaum
Sohom Bandyopadhyay	MSc/CG/2017	Hooghly, WB
Grace Hadkip	MSc/CG/2017	Guwahati
Himanshu Kumar Singh	MSc/CH/2017	Uttar Pradesh
Mohammad Hassan	MSc/CH/2017	Uttar Pradesh
Jyotsna Saini	MSc/CH/2017	Haryana
Sachin	MSc/CH/2017	Harayana
Vamakshi Yadav	MSc/CH/2017	USA
Ayushi Tyagi	MSc/CH/2017	Gurgaon



NAME	CATEGORY	CITY	NAME	CATEGORY	CITY
Babita	MSc/MA/2017	Haryana	Garima	MSc/CH/2019	Guna
Priyanka Rana	MSc/MA/2017	Delhi	Jyoti	MSc/CH/2019	Rewari
Vikash Patel	MSc/MA/2017	Uttar Pradesh	Kriti Kapil	MSc/CH/2019	Lucknow
Balu Ram	MSc/MA/2017	Rajasthan	Priyanka	MSc/CH/2019	Gandhinagar
Parveen Kumar	MSc/MA/2017	Noida	Rudra Prasad	MSc/CH/2019	Uttar Pradesh
Bharat Lal Meena	MSc/MA/2017	Rajasthan	Shriya Arora	MSc/CH/2019	Meerut
Leema Saikia	MSc/PH/2017	Dibrugadh, Assam	Simpi Verma	MSc/CH/2019	Uttar Pradesh
Anirban Mandal	MSc/PH/2017	West Bengal	Tanya Hans	MSc/CH/2019	Haryana
Rahulkumar Kishorbhai Shastri	MSc/PH/2017	Valsad	Tarun Kumar	MSc/CH/2019	Haryana
Harvinder Singh	MSc/PH/2017	Haryana	Lhingneichong Touthang	MSc/CH/2019	Gandhinagar
Saravanan B	MSc/CG/2018	Karnataka	Nikhil Sharma	MSc/CH/2019	Ahmedabad
Baby Ziliya	MSc/CG/2018	Kerala	Parab Amogh Vishram	MSc/MA/2019	Mumbai
Pavithra Ashok Kumar	MSc/CG/2018	Bengaluru	Aditi Sethia	MSc/MA/2019	Rajasthan
Vinaya E H	MSc/CG/2018	Thrissur	Anuradha Sharma	MSc/MA/2019	Rajasthan
Sachin Giri	MSc/CH/2018	New delhi	Ashish Shukla	MSc/MA/2019	Madhya Pradesh
Govind Kumar Sharma	MSc/CH/2018	New delhi	Ayush Agrawal	MSc/MA/2019	Kamalganj
Surya Pratap Singh	MSc/CH/2018	Bulandshahr, UP	Dasharath Meena	MSc/MA/2019	Rajasthan
Sarla Yadav	MSc/CH/2018	Haryana	Gajera Sagarkumar Bharatbhai	MSc/MA/2019	Surat
Komal Bajaj	MSc/CH/2018	Haryana	Harmeet Kumar Garg	MSc/MA/2019	Rajasthan
Rajvir Singh	MSc/CH/2018	Haryana	Lata Yadav	MSc/MA/2019	Kanpur
Rakesh	MSc/CH/2018	Haryana	Meghali	MSc/MA/2019	Punjab
Geetanjali	MSc/CH/2018	Ahmedabad	Mohammad Aqib	MSc/MA/2019	Hamirpur
Megha Bajaj	MSc/CH/2018	New delhi	Pawan Jakhar	MSc/MA/2019	Rajasthan
Sachin Dev	MSc/CH/2018	Haryana	Pulkit	MSc/MA/2019	Uttar pradesh
Naveen Tak	MSc/CH/2018	Rajasthan	Ravikant Bairwa	MSc/MA/2019	Rajasthan
Sajal Kumar	MSc/MA/2018	Orai	Satyanarayan Pruseth	MSc/MA/2019	Jharkhand
Deepika Parmar	MSc/MA/2018	Farrukhabad	Shadab Ali	MSc/MA/2019	Uttar pradesh
Parul Punia	MSc/MA/2018	New Delhi	Shashi Chourasiya	MSc/MA/2019	Farrukhabad
Harshitha C	MSc/MA/2018	Bengaluru	Shobha Mangal	MSc/MA/2019	Rajasthan
Monu Moun	MSc/MA/2018	Haryana	Shrikant Shekhar	MSc/MA/2019	Shaml
Sangeeta Chhabarwal	MSc/MA/2018	Rajasthan	Suresh Choudhary	MSc/MA/2019	Jaipur
Khushi Ram Meena	MSc/MA/2018	Jaipur	Surjeet Singh Choudhary	MSc/MA/2019	Rajasthan
Rahul Hudda	MSc/MA/2018	Haryana	Tanisha	MSc/MA/2019	Haryana
Arvind Kumar Nath	MSc/MA/2018	Kota	Deepak	MSc/MA/2019	Narwana
Archit Agarwal	MSc/MA/2018	Farrukhabad	Jyotsana Gadhwal	MSc/MA/2019	Rajasthan
Samiksha Satish Mahajan	MSc/MA/2018	Maharashtra	Sukhwant Singh	MSc/MA/2019	Gandhinagar
Deepak Singh	MSc/MA/2018	Hapur	Taru Taniya	MSc/MA/2019	Gandhinagar
Rahul Kumar Bansal	MSc/MA/2018	Rajasthan	Arvind Kumar	MSc/PH/2019	Uttar pradesh
Sigaram Gurjar	MSc/MA/2018	Rajasthan	Goutam M	MSc/PH/2019	Karnataka
Rohit Srivastava	MSc/MA/2018	Uttar Pradesh	Kamal Kant Chandra	MSc/PH/2019	Uttar pradesh
Tikam Chand Soygal	MSc/MA/2018	Rajasthan	Kapil Dev	MSc/PH/2019	Haryana
Aritra Kumar Bhaduri	MSc/MA/2018	Hooghly	Karishma Gupta	MSc/PH/2019	Haryana
Vinod Kumar	MSc/MA/2018	Palwal	Rajesh Biswas	MSc/PH/2019	West Bengal
Anoop Singh	MSc/PH/2018	Kannauj, UP	Richa Dobal	MSc/PH/2019	Uttarakhand
Samten Bhutia	MSc/PH/2018	Sikkim	Samardhi	MSc/PH/2019	Haryana
Sanu Kumar Gangwar	MSc/PH/2018	Bareilly, UP	Sonu Yadav	MSc/PH/2019	Haryana
Shivam Awasthi	MSc/PH/2018	Kanpur	Sukanta Mukherjee	MSc/PH/2019	Birbhum
Akash Arya	MSc/PH/2018	Uttar Pradesh	Uday Singh	MSc/PH/2019	Uttar pradesh
Daphisha Mary Nonghuloo	MSc/PH/2018	Shillong	Sachin Kumar	MSc/PH/2019	Gandhinagar
Rajesh Maurya	MSc/PH/2018	Gandhinagar	Pankaj Borah	MSc/PH/2019	Rajasthan
Shubham Garg	MSc/PH/2018	Gandhinagar	Abdul Ghaffar	MSc/PH/2019	Uttar Pradesh
Aarushi Nilen Shah	MSc/CG/2019	Mumbai	Abhishek Kumar	MSc/PH/2019	Gandhinagar
Azba Yasin Shaikh	MSc/CG/2019	Bilimora	Ashish Joseph	MSc/PH/2019	Noida
Meghesh Sonwani	MSc/CG/2019	Raipur	Mohit Kumar Dubey	MSc/PH/2019	Gandhinagar
Dhwani Parimal Sadaphal	MSc/CG/2019	New Delhi	Rajes Ghosh	MSc/PH/2019	Gandhinagar
Harry Antony	MSc/CG/2019	Kerala	Ankit	MSc/PH/2019	Haryana
Joel V Joseph	MSc/CG/2019	New Delhi	Hemant Bapurao Gite	MTech/CL/2013	Mumbai
Kamyaban Hazarika	MSc/CG/2019	Assam	Satyajit Mukherjee	MTech/CL/2013	Hooghly
Lakshman Chakrav Nallan Chakravarthula	MSc/CG/2019	Telangana	Pavni Digant Pandya	MTech/CE/2014	Ahmedabad
Lipsa Sahoo	MSc/CG/2019	Odisha	Upendra Kumar Shukla	MTech/CL/2014	Uttar Pradesh
Luke Nihal Dasari	MSc/CG/2019	Andhra Pradesh	Aparna Menon	MTech/CL/2014	Hyderabad
Manisha Biswas	MSc/CG/2019	Byrasandra	Laya Das	MTech/EE/2014	Bhubaneswar
Meghana Gautam	MSc/CG/2019	Mumbai	Arun Nair	MTech/EE/2014	USA
Prankur Saxena	MSc/CG/2019	Bhopal	Ritesh Jain	MTech/EE/2014	USA
Prashant Lawhatre	MSc/CG/2019	Maharashtra	Manish Pillai	MTech/ME/2014	Kerela
Saawani Niranjan Rajadhyaksha	MSc/CG/2019	Mumbai	Smitha S	MTech/CE/2015	Palakkad
Saba Nasir Pathan	MSc/CG/2019	Mumbai	Kaustubh Jayant Udas	MTech/CE/2015	Pune
Sanika Gupta	MSc/CG/2019	Uttar pradesh	Amar Mandhyan	MTech/CE/2015	Vadodara
Sreekanth C	MSc/CG/2019	Kerala	Gunda Harini	MTech/CL/2015	Andhra Pradesh
Abhishek Saini	MSc/CH/2019	Rajasthan	Preeti Rathi	MTech/CL/2015	Ujjain
Ajay Kumar	MSc/CH/2019	Jharkhand	Bhoir Mandar Suresh Smita	MTech/EE/2015	Maharashtra
Dhanraj Kumawat	MSc/CH/2019	Rajasthan	Taruna Yadav	MTech/EE/2015	USA
Divyansh Prakash	MSc/CH/2019	Allahabad	Pragya Nandan Banjare	MTech/MSE/2015	Nashik
			Pavan Kushwah	MTech/CE/2016	Gwalior

NAME	CATEGORY	CITY
Nikita Rankawat	MTech/CE/2016	Jodhpur
Keerthi Priya Kasturi	MTech/CE/2016	Hyderabad
Sudhakar Kumawat	MTech/CE/2016	Hyderabad
Ravi Verma	MTech/CE/2016	Madhya Pradesh
Ankita Verma	MTech/CL/2016	Chhatisgarh
Mohd Umair Iqbal	MTech/CL/2016	Jammu & Kashmir
Ekta Sharma	MTech/CL/2016	Jaipur
Jaivik Kartik Mankad	MTech/CL/2016	Vodadodara
Amruta Bharat Chatte	MTech/CL/2016	Parbhani
Dheeraj Tyagi	MTech/CL/2016	Meerut
Rahul Patsariya	MTech/CL/2016	Jhansi
Omkar Abhay Pujari	MTech/EE/2016	Maharashtra
Bhoomika Sonane	MTech/EE/2016	Ujjain
Samba Sivaiah Puchalapalli	MTech/EE/2016	Nellore
Nikhil Cherian Kurian	MTech/EE/2016	Kerala
Sunny Verma	MTech/EE/2016	Bilaspur
Rohit Kumar Dang	MTech/EE/2016	New Delhi
Mohit Garg	MTech/ME/2016	Chandigarh
Rajanikant Atul Ghate	MTech/ME/2016	Pune
Abhishek Joshi	MTech/ME/2016	Deharadun
Sagarkumar Khunt	MTech/ME/2016	Deharadun
Gurnani Sagarkumar Vijaykumar	MTech/ME/2016	Surat
Tibin M Thomas	MTech/ME/2016	Kerela
Utsav Mineshbhai Shah	MTech/ME/2016	Ahmedabad
Satya Shrivastav	MTech/ME/2016	Bahadurgarh
Vishnu Kumar Gupta	MTech/ME/2016	Rewari
Rupanjali Gurprasad Prasad	MTech/ME/2016	Ahemdabad
Sawadiawala Chirag Yogeshkumar	MTech/ME/2016	Udhna
Umang Bhupatrai Desai	MTech/MSE/2016	Surat
Amit Kumar Singh	MTech/MSE/2016	Jharkhand
Aditya Anjan Sarkar	MTech/MSE/2016	Pune
Mohan Krishna Kolli	MTech/CE/2017	Andhra Pradesh
Harshit Nema	MTech/CE/2017	Jabalpur, MP
Rojan Mathew	MTech/CE/2017	Kerala
Pariveeksha Joshi	MTech/CE/2017	Indore
Beena Kumari	MTech/CE/2017	Gandhinagar
Bhawna Panjwani	MTech/CL/2017	Chhattisgarh
Sompura Jay Nilesbhai	MTech/EE/2017	Jamnagar
Amarkumar Ayodhyasingh Kushwaha	MTech/EE/2017	Vadodara
Anurag Soni	MTech/EE/2017	Tikamgarh
Shah Hemal Gautamkumar	MTech/EE/2017	Ahmedabad
Neha Kumari	MTech/EE/2017	Patna
Aditya Narendrabhai Vora	MTech/EE/2017	Ahmadabad
Akhil Patnaik	MTech/ME/2017	Chennai
Suryasatyasanjeevi Nakka	MTech/ME/2017	Andhra Pradesh
Baishali Panda	MTech/ME/2017	Bhubaneshwar
Ritam Chatterjee	MTech/ME/2017	Panaji, Goa
Sharad Joshi	MTech/ME/2017	Gandhinagar
Rachit Chhaya	MTech/ME/2017	Gandhinagar
Brijesh Kumar	MTech/ME/2017	Varanasi
Ankita Sinha	MTech/ME/2017	Bihar
Pratik Tulsiram Chimane	MTech/ME/2017	Maharashtra
Sitesh Kumar	MTech/BE/2018	Begusarai, Bihar
Preetika	MTech/BE/2018	New Delhi
Aditi Singhal	MTech/BE/2018	Deoli
Aishwarya Vijayakumar	MTech/BE/2018	Bengaluru
Gaurav Panthi	MTech/BE/2018	Gandhinagar
Rimpy Khokhar	MTech/CE/2018	Rajasthan
Rakesh Meghwal	MTech/CE/2018	Rajasthan
Sujit Vasant Matale	MTech/CE/2018	Pune
Akshay Suresh Rao Nandurkar	MTech/CE/2018	Gandhinagar
Ashutosh Sonpal	MTech/CE/2018	Vadodara
Goverdhan Singh	MTech/CL/2018	Kathua
Kusum Panwar	MTech/CL/2018	Ahmedabad
Sachin Verma	MTech/CL/2018	Bengaluru
Rohit Saraswat	MTech/CL/2018	Agra
Charu Oberoi	MTech/CL/2018	Kanpur
Sai Geetha Marapureddy	MTech/CL/2018	Jodhpur
Sujata Sinha	MTech/CS/2018	Agartala
Shiv Prakash	MTech/EE/2018	Raebareli

NAME	CATEGORY	CITY
Chandra Sekhar Ravuri	MTech/EE/2018	Bengaluru
Ishant Anand	MTech/EE/2018	Haryana
Biswajeet Rout	MTech/EE/2018	Jajpur
Harsha Vardhan Tetali	MTech/EE/2018	USA
Atul Sharma	MTech/ME/2018	Madhya Pradesh
Anashusen Rafikhusen Saiyad	MTech/ME/2018	Anand
Shubham Chouksey	MTech/ME/2018	Dhuma
Priyank Mehta	MTech/ME/2018	Rajasthan
Nikumar Jayantilal Mathur	MTech/ME/2018	Pune
Nevilkumar Mukeshbhai Panchal	MTech/ME/2018	Surat
Ravinder Kumar	MTech/ME/2018	Nadaun
Aditya Sakhare	MTech/ME/2018	Pune
Rana Pratap Singh	MTech/MSE/2018	Uttar Pradesh
Rishi Dhawan	MTech/MSE/2018	Faridabad
Param Punj Singh	MTech/MSE/2018	Jharkhand
Nitish Kumar	MTech/MSE/2018	Noida
Sooraj Ghanshyambhai Patel	MTech/MSE/2018	Patan
Ankit Dodla	MTech/BE/2019	Raipur
Ankita Maji	MTech/BE/2019	West Bengal
Ashmita Chander	MTech/BE/2019	A&N Islands
Kapilkumar Mehta	MTech/BE/2019	Karnataka
Meena K	MTech/BE/2019	Tamilnadu
Pabba Maruthi Kumar	MTech/BE/2019	Hyderabad
Priyanka Prakash Srivastava	MTech/BE/2019	Uttar pradesh
Rahul Gupta	MTech/BE/2019	Haryana
Shruti Adhikari	MTech/BE/2019	Dehradun
Siddhant Kumar	MTech/BE/2019	Vadodara
Vaishali C	MTech/BE/2019	Pondicherry
Vishakha	MTech/BE/2019	Allahabad
Apeksha Srivastava	MTech/BE/2019	Gandhinagar
Camellia Chakraborty	MTech/BE/2019	Gandhinagar
Kaushik Bhowmik	MTech/BE/2019	Bishalgarh
Aparna Shrivastava	MTech/CE/2019	Chhattisgarh
Bhagwana Ram	MTech/CE/2019	Rajasthan
Bhumika Sadhwani	MTech/CE/2019	Mughalsarai
Jatin Aren	MTech/CE/2019	Rajasthan
Rasikh Nazir	MTech/CE/2019	New delhi
Shah Deep Mahipalbhai	MTech/CE/2019	Ahmedabad
Kimti Manawa	MTech/CE/2019	Gandhinagar
Rahul Upadhyay	MTech/CE/2019	Mathura
Shailesh Garg	MTech/CE/2019	Gandhinagar
Aaqib Khan	MTech/CL/2019	Vapi
Avishek Kumar	MTech/CL/2019	Jamshedpur
Khushwant Fatnani	MTech/CL/2019	Raipur
Nidhi Pandey	MTech/CL/2019	Maharashtra
Parth Kumar Vachhani	MTech/CL/2019	Rajkot
Ravi Anand Singh	MTech/CL/2019	Patna
Utkarsh Yogesh Saxena	MTech/CL/2019	Mejsana
Vaibhav Trivedi	MTech/CL/2019	Farrukhabad
Ankur Mittal	MTech/CL/2019	Odisha
Sairam S	MTech/CL/2019	Chennai
Surbhi Prakash Khewle	MTech/CL/2019	Gandhinagar
Ashish Dwivedi	MTech/CS/2019	Noida
Chamanvir Kaur	MTech/CS/2019	Bengaluru
Piyush Rathi	MTech/CS/2019	Rajasthan
Priyanka Gautam	MTech/CS/2019	Ghaziabad
Shiv Kumar	MTech/CS/2019	Gandhinagar
Twinkle Panchal	MTech/CS/2019	Ahmadabad
Subisha V	MTech/CS/2019	Gandhinagar
Rahul Jain	MTech/CS/2019	Bengaluru
P R Vaudyanathan	MTech/EE/2019	Mumbai
Athira Haridas	MTech/EE/2019	CUSAT
Dahiwale Payal Vyankat	MTech/EE/2019	Nagpur
Prakhar Pradhan	MTech/EE/2019	Gwailor
Priyanka	MTech/EE/2019	Gandhinagar
S Preethi	MTech/EE/2019	Gandhinagar
Sarath Chandran G M	MTech/EE/2019	Salem
Shashikant Verma	MTech/EE/2019	Barabanki
Trisrota Deb	MTech/EE/2019	Tripura
Vineetha Bodempudi	MTech/EE/2019	Hyderabad
Yadukrishnan M	MTech/EE/2019	Kerala
Arun Singh Tomar	MTech/EE/2019	Satna

NAME	CATEGORY	CITY	NAME	CATEGORY	CITY
Shivam Tiwari	MTech/EE/2019	Vishnunagar	Tony Thomas	PhD/CG/2019	Kerala
Diptiranjana Paital	MTech/EE/2019	Gandhinagar	Prathap Reddy P	PhD/CH/2019	Gandhinagar
Sachinkumar Babubhai Suthar	MTech/EE/2019	Gandhinagar	Praseetha E K	PhD/CH/2019	Kerala
Abhik Chandra	MTech/ME/2019	Hyderabad	Sanat Chandra Maiti	PhD/CL/2019	Medinipur
Ankit Diwvedi	MTech/ME/2019	Reebareli	Saroj Kumar Das	PhD/CL/2019	Balasore, Odisha
Ankit Sharma	MTech/ME/2019	Vadodara	Apoorva Ojha	PhD/EE/2019	Ahmedabad
Arun Cherkkil	MTech/ME/2019	Indore	Bhavsar Punitkumar Kanubhai	PhD/EE/2019	Deesa
Dhanurdhar Ramswamy	MTech/ME/2019	Aizawl	Pardeep Kumar	PhD/EE/2019	Rajasthan
John Sherjy Syriac	MTech/ME/2019	Kerala	Rajendra Nagar	PhD/EE/2019	Rajasthan
Kishankumar Chauhan	MTech/ME/2019	Junagadh	Satyajit Mohapatra	PhD/EE/2019	Rajasthan
Nashit Jalal	MTech/ME/2019	Alambagh	Naveen Kumar Endla	PhD/EE/2019	Mumbai
Pinki	MTech/ME/2019	New delhi	Rahul Kumar Kaushal	PhD/ES/2019	Uttar pradesh
Piyush Agrawal	MTech/ME/2019	Gandhinagar	Sonam	PhD/ES/2019	Dhanbad
Pragya Mishra	MTech/ME/2019	Pune	Annie Rachel Royson	PhD/HSS/2019	Ahmedabad
Prasanna P Kulkarni	MTech/ME/2019	Gadag	Ranjana Mehta	PhD/MA/2019	Uttarakhand
Pratik Prajapati	MTech/ME/2019	Gandhinagar	Ankita Arora	PhD/MSE/2019	New Delhi
Sagardeep Bhakta	MTech/ME/2019	Minneapolis, USA	Singh Chetan Chandan	PhD/MSE/2019	Mumbai
Satbir Singh	MTech/ME/2019	Kangra	Mohammad Yousuf Jamal	PhD/PH/2019	Bhubaneswar
Tunk Rakesh	MTech/ME/2019	Gandhinagar	Udit Bhatia	Faculty	Gandhinagar
Akash Unnikrishnan	MTech/ME/2019	Gandhinagar	Arpan Bhattacharyya	Faculty	Gandhinagar
Ashu Gupta	MTech/ME/2019	Gandhinagar	Sanjay Singh Bora	Faculty	Gandhinagar
Bakshi Deep Ashwinbhai	MTech/ME/2019	Bengaluru	Arka Chattopadhyay	Faculty	Gandhinagar
Gurav Shubhankar Subhash	MTech/ME/2019	Maharashtra	Sriram K Gundimeda	Faculty	Gandhinagar
Abhishek Raghav	MTech/MSE/2019	Rajasthan	Sharmita Lahiri	Faculty	Gandhinagar
Arushi Dev	MTech/MSE/2019	Uttar Pradesh	Leslee Lazar	Faculty	Gandhinagar
Ashish Yadav	MTech/MSE/2019	Uttar Pradesh	Virupakshi Soppina	Faculty	Gandhinagar
Ashutosh Jena	MTech/MSE/2019	Odisha	Jaichander Swaminathan	Faculty	Gandhinagar
Dhritiman Dey	MTech/MSE/2019	Odisha	Deepak Agnihotri	Staff	Ahmedabad
Litton Bhandari	MTech/MSE/2019	Uttarakhand	Raju Beerasent	Staff	Gandhinagar
Mittireddi Ravi Teja	MTech/MSE/2019	Srikakulam	Ankita Bhandari	Staff	Gandhinagar
Pravalika Butreddy	MTech/MSE/2019	Hyderabad	Shivangi Vasudev Bhatt	Staff	Gandhinagar
Saurabh Sharma	MTech/MSE/2019	Gurugram	Tej Bahadur Gurung	Staff	Gandhinagar
Sudeshna Dhar	MTech/MSE/2019	Odisha	Hani Mukeshbhai Khamar	Staff	Gandhinagar
Anurag Krishnakadar Gumaste	MTech/MSE/2019	Sangli	Jay Mehta	Staff	Gandhinagar
Chandan Kumar Sahoo	MTech/MSE/2019	Gandhinagar	Komal Tarunkumar Sangtani	Staff	Gandhinagar
Prathamesh Upadhyay	MTech/CSE/2020	Gandhinagar	Viral Shah	Staff	Gandhinagar
Kailash Prasad	PGDIIT/CE/2019	Gandhinagar	Tejas Shrikrishna	Staff	Gandhinagar
ANUKRITIKA RAJ	PGDIIT/CE/2019	Patna	Gaurav Shukla	Staff	Gandhinagar
Naveen Puri	PGDIIT/CE/2019	Gandhinagar	Arpit Kaushal	Student	Gandhinagar
Gowthama K K	PGDIIT/CE/2019	Gandhinagar	Apoorva S R	Student	Gandhinagar
Shruti SudhaShruti S Nair	PGDIIT/CE/2019	Gandhinagar	Kamlesh Sawadekar	Student	Gandhinagar
Siddharth Kumar	PGDIIT/CE/2019	Gandhinagar	Abhavya Chandra	Student	Gandhinagar
Patel Zeel Bharatkumar	PGDIIT/CE/2019	Idar	Suvil Mahagaonkar	Student	Gandhinagar
Swarup Jana	PGDIIT/CE/2019	Patna	Amazon	Well-wisher	USA
Swati Satish Joshi	PGDIIT/CE/2019	Ahmedabad	Principal Sanganer College	Well-wisher	Sanganer
Vruddhi Jani	PGDIIT/CE/2019	Gandhinagar	American Online Giving Foundation, Inc	Well-wisher	USA
Sakshi Sanjay Jagtap	PGDIIT/CE/2019	Jalna	Lav Kumar Jaiswal	Well-wisher	Bilaspur
Chetan Kishore	PGDIIT/CE/2019	Indore	Asha Jha	Well-wisher	Madhubani
Rohitashva Kumar Singh	PGDIIT/CE/2019	Gandhinagar	Anirban Majumdar	Well-wisher	India
Siddhi Surawar	PGDIIT/CE/2019	Navi mumbai	Sunil Bhai Manjeri	Well-wisher	Ahmedabad
Sk Hossen Ali	PGDIIT/CE/2019	Gandhinagar	Nadeem	Well-wisher	Navi Mumbai
Rithik Maligi	PGDIIT/CE/2019	Hyderabad	Karshan Pareek	Well-wisher	Rajasthan
Noyonika Das	PGDIIT/CE/2019	Gandhinagar	Puneet	Well-wisher	Delhi
Nanthini A	PGDIIT/CE/2019	Navi mumbai	Teja Ranga	Well-wisher	India
Gaurav Jogi	PGDIIT/CE/2019	Gandhinagar	Y Krishna Rao	Well-wisher	USA
Tanaya Mukati	PGDIIT/CE/2019	Gandhinagar	Sandeep	Well-wisher	Noida
Nikhil Srivastava	PGDIIT/CL/2019	Delhi	Harish Shivashimpar	Well-wisher	Hubli
Sachin Kumar	PGDIIT/EE/2019	Gandhinagar	Vijendra Singh	Well-wisher	India
Bhaskar Shukla	PGDIIT/ME/2019	Bhopal	Mayank Sisodiya	Well-wisher	Dhampur
Uday Kumar	PGDIIT/MSE/2019	Gandhinagar	V Srinivasan	Well-wisher	India
Gayathri Purushothaman	PhD/BE/2014	Gandhinagar	Vikas	Well-wisher	India
Chandrasekaran S	PhD/EE/2015	Tamilnadu	Sushil Yadav	Well-wisher	India
Devdutt Tripathi	PhD/CH/2016	Gandhinagar	Yan Yan	Well-wisher	USA
Nirali Patel	PhD/CH/2016	Gandhinagar			
J Ram Prabhakar	PhD/EE/2016	Tamil Nadu			
Kuldeep Suthar	PhD/PH/2017	Rajasthan			
Ram Baran Verma	PhD/MA/2018	Uttar Pradesh			
Debayan Bhattacharya	PhD/CE/2019	Kolkata			
Harsh Lovekumar Shah	PhD/CE/2019	Ahmedabad			
Jadhav Prajakta Ramesh	PhD/CE/2019	Raigad			
Patnayakuni Ravi Prakash	PhD/CE/2019	Gandhinagar			
Rodda Gopala Krishna	PhD/CE/2019	Nandyal			
Seethalakshmi P	PhD/CE/2019	Tamilnadu			



# ORGANISATION

# BOARD OF GOVERNORS

## CHAIRMAN

To be appointed. Currently all functions are being discharged by the Director

## MEMBERS

### PROF CHANDRIMA SHAHA

President  
Indian National Science Academy &  
Professor of Eminence and former Director  
National Institute of Immunology  
New Delhi

### PROF MYTHILY RAMASWAMY

Professor  
TIFR Centre for Applicable Mathematics  
Tata Institute of Fundamental Research  
Bengaluru

### PROF SHOBHANA NARASIMHAN

Dean, Academic Affairs  
Jawaharlal Nehru Centre for Advanced Scientific Research  
Bengaluru

### DR RAKESH SARWAL, IAS

Additional Secretary (Technical Education)  
Department of Higher Education  
Ministry of Human Resource Development  
Government of India, New Delhi

### SHRI ANIL MUKIM, IAS

Chief Secretary  
Government of Gujarat  
Gandhinagar

### SHRI PRAFULBHAI K PATEL

Administrator  
U T Administration of Daman and Diu  
Daman (U T)

### PROF SUDHIR K JAIN

Director  
Indian Institute of Technology Gandhinagar  
(From April 1, 2019 – June 30, 2019 &  
From September 11, 2019 – March 31, 2020)

### PROF AMIT PRASHANT

Officiating Director  
Indian Institute of Technology Gandhinagar  
(From July 1, 2019 to September 10, 2019)

### PROF PRANAB MOHAPATRA

Professor  
Indian Institute of Technology Gandhinagar

### PROF VIKRANT JAIN

Professor  
Indian Institute of Technology Gandhinagar  
(From July 18, 2019 to September 10, 2019)

## SECRETARY

### SHRI P K CHOPRA

Registrar  
Indian Institute of Technology Gandhinagar

# FINANCE COMMITTEE

## CHAIRMAN

To be appointed. Currently all functions are being discharged by the Director

## MEMBERS

### PROF SUDHIR K JAIN

Director

Indian Institute of Technology Gandhinagar

(From April 1, 2019 – June 30, 2019 &

From September 11, 2019 – March 31, 2020)

### PROF AMIT PRASHANT

Officiating Director

Indian Institute of Technology Gandhinagar

(From July 1, 2019 to September 10, 2019)

### DR RAKESH SARWAL, IAS

Additional Secretary (Technical Education)

Department of Higher Education

Ministry of Human Resource Development

Government of India, New Delhi

### SMT DARSHANA M DABRAL

Joint Secretary (Integrated Finance Bureau) and Financial Advisor

Ministry of Human Resource Development

Government of India, New Delhi

### SHRI BHADRESH MEHTA

Chartered Accountant

Ahmedabad

### PROF D P ROY

Professor-in-Charge, (General Administration)

Indian Institute of Technology Gandhinagar

(from April 1, 2019 – May 15, 2019)

### PROF PRATIK MUTHA

Dean, Academic Affairs

Indian Institute of Technology Gandhinagar

(from May 16, 2019 – March 31, 2020)

## SECRETARY

### SHRI P K CHOPRA

Registrar

Indian Institute of Technology Gandhinagar



# BUILDING AND WORKS COMMITTEE

## CHAIRMAN

### PROF SUDHIR K JAIN

Director

Indian Institute of Technology Gandhinagar

(From April 1, 2019 – June 30, 2019 &

From September 11, 2019 – March 31, 2020)

### PROF AMIT PRASHANT

Officiating Director

Indian Institute of Technology Gandhinagar

(From July 1, 2019 to September 10, 2019)

## MEMBERS

### PROF NEELKANTH CHHAYA

Former Dean

Faculty of Architecture

CEPT University

Ahmedabad

### SHRI M B BHALALA

Former Chief Engineer

Roads & Buildings Department

Government of Gujarat

Gandhinagar

### SHRI K S WAGH

Chief Advisor (Civil Infrastructure)

Indian Institute of Technology Bombay

### SHRI A K JAIN

Former Special Director General

Central Public Works Department

New Delhi

### SHRI L P SRIVASTAVA

Advisor (Works)

Indian Institute of Technology Gandhinagar

### PROF GAURAV SRIVASTAVA

Dean (Campus Development)

Indian Institute of Technology Gandhinagar

## SECRETARY

### SHRI P K CHOPRA

Registrar

Indian Institute of Technology Gandhinagar

# SENATE

(As on 31 March 2020)

## CHAIRMAN

**PROF SUDHIR K JAIN**

Director

## MEMBERS

Prof Ashwini Kumar  
 Prof D P Roy  
 Prof G K Sharma  
 Prof S P Mehrotra  
 Prof N Ramakrishnan  
 Prof R Sharan  
 Prof Jyoti Mukhopadhyay  
 Prof Mohan Joshi  
 Prof R R Puri  
 Prof R N Singh  
 Prof A Ramanathan  
 Prof C N Pandey  
 Prof Michel Danino  
 Prof Achal Mehra  
 Prof V D Sharma  
 Prof G V Rao  
 Prof Amit Prashant  
 Prof Pranab Kumar Mohapatra  
 Prof Vikrant Jain  
 Prof Chinmay Ghoroi  
 Prof Sameer Dalvi  
 Prof Jaison Manjaly  
 Prof Nihar Ranjan Mohapatra  
 Prof Anirban Dasgupta  
 Prof Neelkanth Chhaya  
 Prof Deepak Kunzru  
 Prof Namit Mahajan  
 Shri Anand Parekh  
 Shri Sunil Parekh  
 Prof Harish P M  
 Prof Pratik Mutha  
 Prof Gaurav Srivastava  
 Prof Sharmistha Majumdar  
 Prof Sharad Gupta  
 Prof Vimal Mishra  
 Prof Manish Kumar (CE)  
 Prof Saumyakanti Khatua  
 Prof Bhaskar Datta  
 Prof Pratyush Dayal  
 Prof Kabeer Jasuja  
 Prof Krishna Prasad Miyapuram  
 Prof Uttama Lahiri  
 Prof Neeldhara Misra  
 Prof Naran Pindoriya  
 Prof Nithin V George  
 Prof Sanjay Bora  
 Prof Mona Mehta  
 Prof Ambika Aiyadurai  
 Prof Atul Dixit  
 Prof Aksha Vatwani  
 Prof Dilip Srinivas Sundaram  
 Prof Madhu Vadali

Prof Superb Misra  
 Prof Abhijit Mishra  
 Prof Sudipta Sarkar  
 Prof Krishna Kanti Dey

## PERMANENT INVITEE

Dr T S Kumbar

## STUDENT INVITEES

Lakhan Agrawal (General Secretary,  
 Student Council)  
 Anushika Singh  
 Vyom Mudgal  
 Adarsh Thakur

## SECRETARY

**SHRI P K CHOPRA**

Registrar

**NOTE:** Prof Amit Prashant was the Officiating Director and Chairman of the Senate during the period from July 1, 2019 to September 10, 2019.

## STANDING COMMITTEES OF THE SENATE

### SENATE ACADEMIC PERFORMANCE EVALUATION COMMITTEE (SAPEC)

Prof Abhijit Mishra, Convener  
 Prof Pratik Mutha (Dean, Academic Affairs)  
 Prof Kabeer Jasuja  
 Prof Krishna Kanti Dey  
 Prof Bhaskar Datta  
 Prof Joyce Mekie  
 Prof Ambika Aiyadurai  
 Prof Nitin Khanna  
 Prof S Rajendran  
 Prof Raghavan Ranganathan

### SENATE ACADEMIC PROGRAMMES COMMITTEE (SAPC)

Prof Pratik Mutha, Chairman, (Dean, Academic Affairs)  
 Prof Kabeer Jasuja  
 Prof Krishna Kanti Dey  
 Prof Pranab Mohapatra  
 Prof Vikrant Jain  
 Prof Jaison A Manjaly  
 Prof Sharmistha Majumdar  
 Prof Pratyush Dayal

Prof Saumyakanti Khatua  
 Prof Krishna Prasad Miyapuram  
 Prof Anirban Dasgupta  
 Prof Naran Pindoriya  
 Prof Superb Misra  
 Prof Atul Dixit  
 Prof Dilip S Sundaram  
 Prof Sudipta Sarkar  
 Animesh Rastogi (Student Nominee)  
 Shantanu Jana (Student Nominee)

### SENATE SCHOLARSHIPS AND PRIZES COMMITTEE (SSPC)

Prof Harish P M, Chairman, (Dean, Student Affairs)  
 Prof Madhu Vadali  
 Prof Manish Kumar (CE)  
 Prof Chetan Pahlajani

### SENATE STUDENT AFFAIRS COMMITTEE (SSAC)

Prof Harish P M, Chairman, (Dean, Student Affairs)  
 Prof Nithin V George  
 Prof Angus McBlane  
 Prof Madhu Vadali  
 Prof Sharmistha Majumdar  
 Prof Arnab Dutta  
 Lakhan Agrawal (General Secretary, Student Council)  
 Shreyas Sreeram (Student Nominee)  
 Aishna Agarwal (Student Nominee)

### SENATE LIBRARY COMMITTEE (SLC)

Prof Michel Danino, Chairman  
 Dr T S Kumbar  
 Prof Shanmuganathan Raman  
 Prof Sudipta Sarkar  
 Prof Manish Jain  
 Ms Saswati Roy  
 Dave Hari Manish (Student Nominee)  
 Kumar Ayush Paramhans (Student Nominee)

# ACADEMIC OFFICIALS

Prof Sudhir K Jain

Director

(From April 1, 2019 – June 30, 2019 &

From September 11, 2019 – March 31, 2020)

Prof Amit Prashant

Officiating Director

(July 1, 2019 – September 10, 2019)

Prof Pratik Mutha

Dean, Academic Affairs

Prof Kabeer Jasuja

Associate Dean, Undergraduate Studies

Prof Krishna Kanti Dey

Associate Dean, Postgraduate Studies

Prof Harish P M

Dean, Student Affairs

Prof Madhu Vadali

Associate Dean, Students Affairs

Prof Abhay Raj Singh Gautam

Head, Career Development Services (and also  
Coordinator, Placement)

Prof Shanmuganathan Raman

Coordinator, Internship

Prof Mithun Radhakrishna\*

Coordinator, Higher Education & Industry Visits  
(\* April 1, 2019 – August 31, 2019)

Prof Himanshu Shekhar

Coordinator, Future Faculty Program and  
Higher Education  
(wef September 1, 2019)

Prof Bhaskar Datta

Head, Student Counselling Services

Prof Joyce Mekie

Associate Head, Student Counselling Services

Prof Gopinadhan Kalon

Advisor, Sports

Prof Baradhwaj Coleppa

Advisor, Gymnasium

Prof Atul Dixit

Advisor, Cultural Activities

Prof S Rajendran

Advisor, Technical Activities

Prof Umashankar Singh

Coordinator, Student Integration

Prof Udit Bhatia

Coordinator, Communication and Life Skills Program

Prof Gopinathan Kalon

Coordinator, Earn-While-You-Learn

Prof Arnab Dutta\* / Prof Raghavan Ranganathan#

Warden, Student Welfare

(\*April 1, 2019 – December 18, 2019)

(# wef December 19, 2019)

Prof Sivapriya Kirubakaran

Warden, Hostel Facilities

Prof Chetan Pahlajani

Coordinator, Explorers & Gram Fellowships

Prof G K Sharma

Professor-in-Charge, Faculty Affairs

Prof Nithin V George

Associate Dean, Faculty Relations

Prof Dilip Sundaram\* / Prof Prasanna Venkatesh B#

Associate Dean, Faculty Recruitment

(\*April 1, 2019 – July 31, 2019) (#wef August 1, 2019)

Prof S P Mehrotra

Professor-in-Charge, External Relations

Dr Ravikumar Bhaskaran

Honorary Advisor, External Relations

Prof Neeldhara Misra

Associate Dean, External Communication

Mr Nirmal Jha

Advisor, Industry Partnership

Prof Achal Mehra

Team Leader - Overseas Partnerships

Prof D P Roy

Professor-in-Charge, General Administration

Prof Gaurav Srivastava

Dean, Campus Development

Prof Ravi Sastri Ayyagari\* / Prof Chinmay Ghoroi#

Associate Dean, Campus Management

(\*from April 1, 2019 – September 30, 2019)

(#wef October 1, 2019)

Prof Jaison A Manjaly

Coordinator, Information Systems and Technology Facility  
(ISTF)

Prof Nipun Batra\* / Prof Mayank Singh#

Co-coordinator, Information Systems and  
Technology Facility (ISTF)

(\*April 1, 2019 – January 20, 2020)

(#wef January 21, 2020)

Prof Pratyush Dayal

Coordinator, Institute Management System

Prof Jaichander Swaminathan

IMS Liaison



Prof Amit Prashant  
Dean, Research and Development

Prof Atul Bhargav\*  
Associate Dean, External Projects  
Coordinator, Continuing Education Programmes  
(\*April 1, 2019 – March 1, 2020)

Prof Umashankar Singh  
Coordinator, Continuing Education Programmes  
(wef March 2, 2020)

Prof Pranab Kumar Mohapatra  
Head, Engineering Disciplines and Chief Vigilance Officer

Prof Jaison A Manjaly  
Head, Humanities and Social Sciences

Prof Vikrant Jain  
Head, Natural Sciences

## DISCIPLINE COORDINATORS

Prof Sharmistha Majumdar  
Biological Engineering

Prof Pratyush Dayal  
Chemical Engineering

Prof Sairam S M\* / Prof Saumyakanti Khatua#  
Chemistry  
(\*upto September 29, 2019) (#wef September 30, 2019)

Prof Pranab K Mohapatra  
Civil Engineering

Prof Krishna Prasad Miyapuram  
Cognitive Science

Prof Bireswar Das\* / Prof Anirban Dasgupta#  
Computer Science and Engineering  
(\*upto September 29, 2019) (#wef September 30, 2019)

Prof Nihar Ranjan Mohapatra\* / Prof Naran Pindoriya#  
Electrical Engineering  
(\*upto September 29, 2019) (#wef September 30, 2019)

Prof Jaison Manjaly  
Humanities and Social Sciences

Prof Superb Misra  
Materials Engineering

Prof Atul Dixit  
Mathematics

Prof Uddipta Ghosh\* / Prof Dilip S Sundaram#  
Mechanical Engineering  
(\*upto September 29, 2019) (#wef September 30, 2019)

Prof Sudipta Sarkar  
Physics

Prof Vikrant Jain  
Earth Sciences

## CENTRES COORDINATORS

### CENTRE FOR ARCHAEOLOGICAL SCIENCES

Coordinator: Prof Michel Danino  
Co-coordinator: Prof S P Mehrotra

### CENTRE FOR BIOMEDICAL ENGINEERING

Coordinator: Prof Uttama Lahiri  
Co-coordinator: Prof Sivapriya Kirubakaran\* /  
Prof Karla P Mercado-Shekhar#  
(\*upto September 30, 2019)  
(#wef October 1, 2019)

### CENTRE FOR CREATIVE LEARNING

Coordinator: Prof Manish Jain  
Co-coordinators: Prof Neeldhara Mishra (wef October 1, 2019)

### CENTRE FOR COGNITIVE AND BRAIN SCIENCES

Coordinator: Prof Krishna Prasad Miyapuram  
Co-coordinator: Prof Pratik Mutha\* / Prof Meera Mary Sunny#  
(\*upto September 30, 2019)  
(#wef October 1, 2019)

### DESIGN AND INNOVATION CENTRE

Coordinator: Prof Vineet Vashista  
Co-coordinator: Prof Nithin George\* / Prof Lezlee Lazar#  
(\*upto September 30, 2019)  
(#wef October 1, 2019)

### DR KIRAN C PATEL CENTRE FOR SUSTAINABLE DEVELOPMENT

Coordinator: Prof Achal Mehra  
Co-coordinator: Prof Jaichander Swaminathan

### CENTRE FOR SAFETY ENGINEERING

Coordinator: Prof Chinmay Ghoroi  
Co-coordinator: Prof Gaurav Srivastava

## STUDENT LEADERSHIP

The following students were declared elected as office bearers for the academic year 2019-20:

General Secretary & Interim Convener, Student Senate	: Lakhan Agrawal
Welfare Secretary	: Kshitij Sendre
Academic Secretary	: Animesh Rastogi
Technical Secretary	: Pankaj Vatwani
Cultural Secretary	: Mukul Lawas
Sports Secretary	: Rahul Yadav
Professional Development Council (PDC) Secretary	: Smeet Vora
Industry Relations & Projects (IR&P) Secretary	: Kavan Joshi

# FACULTY

DISCIPLINE	DESIGNATION	PHD/LAST DEGREE	SPECIALISATION
<b>ARCHAEOLOGICAL SCIENCES</b>			
Sharada V Channarayapatna	Assistant Professor	Deccan College, 2014; University of Ferrara, 2018	Archaeozoology and taphonomy and bioarchaeology
Michel Danino	Visiting Professor	École Supérieure d'Électricité (Gif-sur-Yvette, France), 1977	Archaeology, history and culture of ancient India
Alok Kumar Kanungo	Assistant Research Professor	Deccan College, 2003	History and origin of glass
<b>BIOLOGICAL ENGINEERING</b>			
Dhiraj Devidas Bhatia	Assistant Professor	Tata Institute of Fundamental Research, 2013	DNA nanotechnology and chemical biology
Latha Chelvakumar*	Visiting Professor	Veterinarian, US Equivalent D V M (University of Peradeniya)	Quality assurance and regulatory compliance in pharmaceutical and medical device industries
Sharad Gupta	Associate Professor	University of Pittsburgh, 2009	Protein misfolding in Alzheimer's and Huntington's diseases
Sharmistha Majumdar	Assistant Professor	Cornell University, 2006	Genomic and proteomic analysis of transposases and transposase homologs
Karla Patricia Mercado-Shekhar	Assistant Professor	University of Rochester, 2015	Tissue elasticity imaging and ultrasound techniques
Pratik Mutha	Associate Professor	Pennsylvania State University, 2009	Sensorimotor control and learning
Umashankar Singh	Assistant Professor	Uppsala University, 2006	Cytoprotection
Virupakshi Soppina	Assistant Professor	Gulbarga University, 2006	Kinesins and intracellular transport
Vijay Thiruvengatam	Assistant Research Professor	Jiwaji University, 2009	Small molecules x-ray crystallography
<b>CHEMICAL ENGINEERING</b>			
Sameer V Dalvi	Professor	IIT Bombay, 2007	Supercritical fluid processing
Pratyush Dayal	Assistant Professor	University of Akron, 2007	Self-oscillating polymer gels
Chinmay Ghorai	Professor	IIT Bombay, 2007	Particle engineering and powder processing
Kabeer Jasuja	Associate Professor	Kansas State University, 2011	Synthesis of two-dimensional nanomaterials
Nitin U Padhiyar	Assistant Professor	IIT Bombay, 2008	Process optimization and control
Mithun Radhakrishna	Assistant Professor	Columbia University, 2014	Study of soft matter systems through theory and molecular simulations
Kaustubh S Rane	Assistant Professor	University at Buffalo, 2014	Thermodynamics and statistical mechanics of the interfacial systems
Babji Srinivasan	Assistant Professor	Texas Tech University, 2011	Design, control and monitoring of complex systems with human-in-the-Loop
Prachi Thareja	Associate Professor	University of Pittsburgh, 2008	In-situ rheology of crystallizing fatty acid pastes
<b>CHEMISTRY</b>			
Chandrakumar Appayee	Associate Professor	IISc Bangalore 2008	Asymmetric catalysis
Sudipta Basu	Associate Professor	Max-Planck Institute for Molecular Physiology, 2006	Chemical biology of mitochondria and endoplasmic reticulum
Bhaskar Datta	Associate Professor (Jointly with Bio. Engg.)	Carnegie Mellon University, 2004	Nucleic acid based chemical biology
Arnab Dutta	Assistant Professor (Currently away on lien)	Arizona State University, 2012	Bio-inorganic chemistry
Sriram V Gundimeda	Associate Professor	IIT Bombay, 2001	Bio-organic chemistry
Iti Gupta	Associate Professor	IIT Bombay, 2005	Macrocyclic receptors and expanded porphyrinoids
Saumyakanti Khatua	Associate Professor	Rice University, 2011	Plasmonics
Sivapriya Kirubakaran	Associate Professor	IISc Bangalore, 2007	Drug discovery and cancer chemical biology
Sairam Swaroop Mallajosyula	Assistant Professor	JNCASR, Bangalore, 2009	Carbohydrate-protein interactions

\* For part of the year

DISCIPLINE	DESIGNATION	PHD/LAST DEGREE	SPECIALISATION
Sudhansu Sharma	Assistant Professor	IISc Bangalore, 2009	Materials, electrochemistry
<b>CIVIL ENGINEERING</b>			
Dhiman Basu	Associate Professor	State University of New York at Buffalo, 2012	Rotational seismology, complex structures
Udit Bhatia	Assistant Professor	Northeastern University, 2018	Critical infrastructure resilience and network science
Svetlana Brzev*	Visiting Professor	IIT Roorkee, 1994	Earthquake risk mitigation in developing countries
Sarvesh Chandra*	Visiting Professor	IIT Kanpur, 1980	Analysis of Beams and Plates on Nonlinear Subgrades
Sudhir K Jain	Director & Professor	California Institute of Technology, 1983	Earthquake engineering, structural dynamics
Ashwini Kumar	Visiting Professor	University of Waterloo, 1974	Stability and large deformation of structures
Manish Kumar	Assistant Professor	State University of New York at Buffalo, 2015	Performance-based earthquake engineering
Vimal Mishra	Associate Professor (Jointly with Earth Sciences)	Purdue University, 2010	Surface water hydrology
Pranab Kumar Mohapatra	Professor	IIT Kanpur, 1999	Hydraulics and water resources engineering
C N Pandey	Visiting Professor (Jointly with Earth Sciences)	North Gujarat University, 2011	Forestry, wildlife, environment
Amit Prashant	Professor	University of Tennessee, 2004	Constitutive modeling for granular materials
G V Rao	Visiting Professor	IISc Bangalore, 1973	Geotechnical testing and evaluation
Ajanta Sachan	Associate Professor	University of Tennessee, 2005	Material characterization
Gaurav Srivastava	Associate Professor	University of Minnesota, 2011	Uncertainty quantification
<b>COMPUTER SCIENCE AND ENGINEERING</b>			
Manu Awasthi*	Assistant Professor	University of Utah, 2011	Computer architecture, operating systems, memory and storage hierarchies
Nipun Batra	Assistant Professor	IIIT Delhi, 2017	Sensor networks, machine learning and computational sustainability
Bireswar Das	Associate Professor	Institute of Mathematical Sciences, Chennai, 2010	Computational complexity theory and algorithms
Anirban Dasgupta	Professor	Cornell University, 2005	Algorithms for large scale data
Manoj D Gupta	Assistant Professor	IIT Delhi, 2013	Dynamic graph algorithms
Neeldhara Misra	Assistant Professor	Institute of Mathematical Sciences, Chennai, 2012	Design and analysis of algorithms
Mayank Singh	Assistant Professor	IIT Kharagpur, 2019	Text mining natural language processing and machine learning
<b>CREATIVE LEARNING</b>			
Manish Jain	Associate Teaching Professor	IIT Kanpur, 1993 (BTech)	3D geometry, polyhedra, geodesics, machines and mechanisms, and recreational math
<b>DESIGN</b>			
Manasi A Kanetkar	Assistant Teaching Professor	IIT Bombay, 2006 (MDes)	Pedagogy in design education and semiotics and design
<b>EARTH SCIENCES</b>			
Sanjay Singh Bora	Assistant Professor	University of Potsdam, 2016	Spectral analysis of source, path and site effects
Vikrant Jain	Professor	IIT Kanpur, 2001	Earth surface processes
Manish Kumar	Assistant Professor	The University of Tokyo, 2009	Pathways of contamination in freshwater system
R N Singh	Visiting Professor	Banaras Hindu University, 1969	Modeling of near-surface geophysical and environmental processes



DISCIPLINE	DESIGNATION	PHD/LAST DEGREE	SPECIALISATION
Pradeep Srivastava	Adjunct Professor	Peoples' Friendship University, Moscow, 1983	Theoretical mechanics & control systems
<b>ELECTRICAL ENGINEERING</b>			
Arup Lal Chakraborty	Associate Professor	University of Strathclyde, 2010	Tunable diode laser spectroscopy for gas parameter measurement
Nithin V George	Associate Professor	IIT Bhubaneswar, 2012	Active noise control, adaptive signal processing
Ravi S Hedge	Assistant Professor	University of Michigan, Ann Arbor, 2008	Optical properties of nanostructures
Ragavan K	Associate Professor	IISc Bangalore, 2006	Transformer diagnostics
Nitin Khanna	Assistant Professor	Purdue University, 2009	Multimedia security - sensor forensics
Uttama Lahiri	Associate Professor	Vanderbilt University, 2011	Virtual reality based human computer interaction used in affective computing
Joycee Mekie	Assistant Professor	IIT Bombay, 2009	VLSI design
Nihar Ranjan Mohapatra	Professor	IIT Bombay, 2003	Semiconductor devices and technology
Rajendra Nagar*	Assistant Research Professor	IIT Gandhinagar, 2019	Computer vision, computer graphics and 3D shape analysis
Naran M Pindoriya	Associate Professor	IIT Kanpur, 2009	Restructuring power systems - technical and economical issues
S Rajendran	Associate Teaching Professor	IIT Madras, 1988 (MTech)	High speed packaging machines-VFFS and HFFS technologies
Shanmuganathan Raman	Associate Professor (Jointly with CSE)	IIT Bombay, 2011	Computational photography
R Sharan*	Visiting Professor	University of Waterloo, 1968	Technological progress and human values
Himanshu Shekhar	Assistant Professor	University of Rochester, 2014	Therapeutic ultrasound and nonlinear imaging
<b>HUMANITIES AND SOCIAL SCIENCES</b>			
Mohd Mubashshir Ahsan	Lecturer	Jawaharlal Nehru University, 2016	Arabic and Islamic studies in India
Ambika Aiyadurai	Assistant Professor	National University of Singapore, 2015	Anthropology of nature conservation and the role of local communities
Arka Chattopadhyay	Assistant Professor	Western Sydney University, 2016	20th century literature: Modernism and postmodernism, modern theatre, European avant garde fiction
Tina Chaudouet*	French Language Trainee Teacher	University of Franche-Comte-Besancon, France	
Nishaant Choksi	Assistant Professor	University of Michigan, Ann Arbor, 2014	Semiotics; linguistic ethnography; script and writing systems
Jooyung Kim	Assistant Teaching Professor	University of Delaware, 2018	Linguistics syntax and semantics
Sharmita Lahiri	Assistant Professor	University of Houston, 2008	Postcolonial literature and composition
Leslee Lazar	Assistant Teaching Professor	National Brain Research Centre, India, 2013	Neuroscience of design, science communication, cultural cognition, behavioral change
Vandana Luximon*	French Language Trainee Teacher	Aix Marseille University	
Jaison A Manjaly	Professor	IIT Kharagpur, 2008	Experience, consciousness, rationality
Angus McBlane	Visiting Assistant Professor	Cardiff University, 2014	Cultural theory, embodiment, environmental humanities
Achal Mehra	Visiting Professor	Southern Illinois University, Carbondale, 1985	Online media, media management, investigative reporting, media law, media ethics
Mona G Mehta	Assistant Professor	University of Chicago, 2010	Democracy, ethnic conflict, civil society, nationalism and identity politics in India
Krishna Prasad Miyapuram	Associate Professor (Jointly with CSE)	University of Cambridge, 2008	Brain imaging (fMRI) and cognitive science
Vivek Venkitaraman Narayan	Assistant Professor	Stanford University, 2019	Performance studies and dalit studies
A Ramanathan	Visiting Professor	Bombay University, 1981	Managerial economics, cost benefit analysis, applied econometrics and monetary economics

\* For part of the year

DISCIPLINE	DESIGNATION	PHD/LAST DEGREE	SPECIALISATION
Anapurna Rath	Assistant Professor	IIT Bombay, 2010	South-Asian literature, critical theories, Bakhtin studies, creative writing
Tannistha Samantha	Assistant Professor	University of Maryland, 2012	Social demography, aging in developing countries
Madhumita Sengupta	Assistant Professor	University of Calcutta, 2009	Colonial India and the socio - political history of Assam
Mana A Shah	Lecturer	Gujarat University, 2012 (MA)	Sanskrit and Prakrit grammar, Jain kavya and Stotra literature, manuscriptology
Atul Singh*	Visiting Professor	The Wharton School, University of Pennsylvania, 2010	Global economy, World affairs, Geopolitics, political systems and sustainability
Malavika A Subramanyam	Assistant Professor	Harvard University, 2009	Socioeconomic context and neighbourhoods on nutrition and diabetes
Meera Mary Sunny	Associate Professor	University of Warwick, 2011	Visual attention, attention capture

## MATERIALS ENGINEERING

Amit Arora	Assistant Professor	The Pennsylvania State University, 2011	Friction stir welding, heat transfer and visco-plastic flow
Abhay Raj Singh Gautam	Assistant Professor	University of Virginia, 2009	Interface structure and dynamics
Pradipta Ghosh	Assistant Professor	IISc Bangalore, 2014	Synthesis of nanocrystalline metals alloys and composites, microstructure characterization of nanocrystalline materials
S P Mehrotra	Visiting Professor	IIT Kanpur, 1973	Mineral processing and process metallurgy
Abhijit Mishra	Associate Professor	University of Illinois, Urbana-Champaign, 2010	X-Ray diffraction, membrane properties
Superb Kumar Misra	Assistant Professor (Jointly with Mechanical Engg.)	Imperial College London, 2007	Biomaterials and tissue engineering
Jyoti Mukhopadhyay	Visiting Professor	IIT Bombay, 1982	Structure – property correlation
Emila Panda	Associate Professor	Max Planck Institute, Germany, 2009	Investigations of thin films and nanostructured materials
Raghavan Ranganathan	Assistant Professor	Rensselaer Polytechnic Institute, 2016	Atomistic/Molecular simulations of structure-property relations and Dynamics of soft matter
Sriharitha Rowthu	Assistant Professor	École Polytechnique Fédérale de Lausanne, 2016	Wetting and dewetting phenomena

## MATHEMATICS

Sanjaykumar Amrutiya	Assistant Professor	Harish-Chandra Research Institute, Allahabad, 2012	Tannakian group schemes, moduli spaces, vector bundles
Paresh Date*	Visiting Professor	University of Cambridge, 2001	Theory and applications of filtering in nonlinear dynamical systems and dynamic stochastic models in quantitative finance
Atul Abhay Dixit	Assistant Professor	University of Illinois at Urbana-Champaign, 2012	Analytic number theory
Mohan Joshi	Visiting Professor	Purdue University, 1973	Nonlinear analysis
N Ladhawala	Adjunct Professor	Purdue University, 1976	Harmonic analysis
Chetan D Pahlajani	Assistant Professor	University of Illinois, Urbana-Champaign, 2007	Probability theory and stochastic processes
Arnab Saha	Assistant Professor	University of New Mexico, 2012	Arithmetic jet spaces
Bipul Saurabh	Assistant Professor	Indian Statistical Institute, Delhi, 2016	Operator algebras, Noncommutative geometry and Quantum groups
Indranath Sengupta	Associate Professor	IISc Bangalore, 2001	Commutative algebra, algebraic geometry
V D Sharma	Visiting Professor	Banaras Hindu University, 1972	Quasilinear systems of partial differential equations
Rengarajan Srinivasan*	Visiting Professor	Carleton University, 1988	Applied probability, stochastic models, queueing networks Monte Carlo simulations
Jagmohan Tyagi	Associate Professor	IIT Kanpur, 2008	Ordinary differential equations, elliptic partial differential equations

DISCIPLINE	DESIGNATION	PHD/LAST DEGREE	SPECIALISATION
Akshaa Vatwani	Assistant Professor	Queen's University, 2016	Analytic number theory, sieve methods and algebraic number theory
<b>MECHANICAL ENGINEERING</b>			
Ravi Sastri Ayyagari	Assistant Professor	Illinois Institute of Technology, 2013	Solid mechanics, constitutive modeling, computational mechanics
Atul Bhargav	Associate Professor	University of Maryland, College Park, 2010	Fuel cell systems design and simulation
Uddipta Ghosh	Assistant Professor	IIT Kharagpur, 2016	Low-reynolds number hydrodynamics, with special focus on electrokinetics of complex systems
K R Jayaprakash	Assistant Professor	University of Illinois at Urbana Champaign, 2013	Wave propagation in one and two-dimensional granular media
K Chelva Kumar*	Visiting Professor	Caltech, 1985	Healthcare finance and engineering mechanics
Vinod Narayanan	Associate Professor	JNCASR, Bangalore, 2006	Fluid mechanics
Harish J Palanthandalam-Madapusi	Associate Professor	University of Michigan, Ann Arbor, 2007	Systems and control theory, system identification (data-based modeling)
N Ramakrishnan	Visiting Professor	IIT Bombay, 1980	Manufacturing, automation and composite materials
Sarma L Rani*	Visiting Associate Professor	University of Illinois at Urbana-Champaign	Turbulent flows laden with disperse spherical and complex-shaped particles, combustion instability and acoustic analysis
D P Roy	Visiting Professor	Tech University Aachen, 1976	Fluid dynamics and fluid machinery
G K Sharma	Visiting Professor	Moscow Power Engineering Institute, 1974	Thermal engineering
Dilip S Sundaram	Assistant Professor	Georgia Institute of Technology, 2013	Thermofluid sciences, combustion, and energetic materials
Jaichander Swaminathan	Assistant Professor	Massachusetts Institute of Technology, 2017	Thermal sciences, water-energy systems, industrial reuse and recycling
Venkata Madhukanth Vadali	Assistant Professor (Jointly with EE)	University of Wisconsin, Madison, 2013	Dynamic systems, control systems, manufacturing, mechatronics, robotics
Vineet Vashista	Assistant Professor	Columbia University, 2015	Design and control of mechanical systems
<b>PHYSICS</b>			
Prasanna Venkatesh B	Assistant Professor	McMaster University, 2013	Theoretical research in quantum optics and nanophysics, ultracold atomic physics
Rupak Banerjee	Assistant Professor	University of Calcutta (Saha Institute of Nuclear Physics), 2012	Surface physics and materials science
Arpan Bhattacharyya	Assistant Professor	IISc Bangalore, 2015	Quantum entanglement in many-body systems
Vinod Chandra	Associate Professor	IIT Kanpur, 2009	Quark-gluon-plasma and relativistic heavy ion collisions
Baradhwaj Coleppa	Assistant Professor	Michigan State University, 2009	Beyond the standard model – model building and LHC, phenomenology of new states
Krishna Kanti Dey	Assistant Professor	IIT Guwahati, 2011	Active matter, colloidal dynamics, nanotechnology
Gopinadhan Kalon	Assistant Professor	IIT Delhi, 2008	Graphene based nanofluidics/desalination techniques
R R Puri	Visiting Professor	Bombay University, 1981	Theoretical quantum optics, quantum mechanics, random matrix theory of quantum chaos
Sudipta Sarkar	Associate Professor	University of Pune, IUCAA, 2009	General relativity and black hole thermodynamics
Anand Sengupta	Associate Professor	IUCAA Pune, 2005	Detection of gravitational waves, aspects of CMB data analysis

\* For part of the year



## DISTINGUISHED HONORARY PROFESSORS

NAME	AFFILIATION
Surendra Prasad	Former Director, IIT Delhi
S P Sukhatme	Professor Emeritus, Mechanical Engineering, IIT Bombay
Nitish Thakor	Professor, Biomedical Engineering, Johns Hopkins School of Medicine, USA

## SCHOLARS-IN-RESIDENCE

NAME	AFFILIATION
Maria Amante	Director, Information and Documentation Services, ISCTE-University Institute of Lisbon, Portugal
Frederick Coolidge	Professor, University of Colorado, USA
Mohammed Ganaoui	Professor at the Université de Lorraine, France
Nuno Guimaraes	Professor, ISCTE-University Institute of Lisbon, Portugal
Aditi Gupta	Learning and Research Librarian, Engineering & Science, University of Victoria, Canada
Rishi Gupta	Associate Professor, University of Victoria, Canada
Shahrazad Haddadan	Postdoctoral Researcher, Sapienza University of Rome, Italy
Shungo Kawanishi	Vice President (International Relations) and Director, Global Communication Center, Japan Advanced Institute of Science and Technology (JAIST), Japan
Alok Laddha	Associate Professor, Chennai Mathematical Institute
Kotona Motoyama	Senior Lecturer, Japan Advanced Institute of Science and Technology (JAIST), Japan
Rosa Maria Perez	Associate Professor, ISCTE, Lisbon, Portugal
Jyotika Ramaprasad	Professor, Journalism and Media Management, University of Miami, USA
Nareshkumar Samtani	Former Vice President, Garware-Wall Ropes Ltd
Andreas Schueler	Lecturer, École polytechnique fédérale de Lausanne, Switzerland
Anezka Sebek	Associate Professor, School of Art Media and Technology, Parsons School of Design, The New School, USA
Marcos Severo	Marketing Researcher and Professor, Federal University of Goiás, Brazil
R Sharan	Former Visiting Professor, IITGN
Amita Sinha	Former Professor, University of Illinois, USA
Vasco Trigo	Former Head of Communication and Multimedia Office, ISCTE-Instituto Universitário de Lisboa, Portugal

## GUEST PROFESSORS

NAME	AFFILIATION
A V Anilkumar	Professor, Vanderbilt School of Engineering, USA
V Ashok	Indian Foreign Service (Retd), Guest Professor-IITGN, Adjunct Professor-IITB, Guest Professor-NIAS Bangalore
Nikhil Balram	Head of Display, R&D, Google, USA
Ravi Banavar	Professor, Systems and Control Engineering, IIT Bombay
Harsh Bhargava	President, Bankworld Inc, USA
Achintya K Bhowmik	Chief Technology Officer & General Manager, Perceptual Computing Group, Intel Corporation, CA, USA
R S Bisht	Joint Director General (ret), Archaeological Survey of India, & Padma Shri Awardee, 2013
Rajendra Bordia	Professor and Chair of the Department, Materials Science and Engineering, Clemson University, USA
R P Chhabra	Professor, Department of Chemical Engineering, IIT Kanpur
Pravinray Gandhi	Director, Corporate Research, Underwriters Laboratories Inc, USA
Ramesh Gaonkar	Guest Professor, Electrical Engineering, IITGN
Walter Nils Hakala	Director, Asian Studies Program & Associate Professor, Department of English, University at Buffalo, USA
Rajen Jaswa	Guest Professor, Electrical Engineering, IITGN
Ashok Joshi	Professor, Department of Aerospace Engineering, IIT Bombay
Lilavati Krishnan	Professor (ret), HSS Department, IIT Kanpur
Jordan Litman	Associate Professor, University of Maine at Machias, USA
V N Prabhakar	Director (Excavations and Explorations), Archaeological Survey of India
Durgesh C Rai	Professor, Department of Civil Engineering, IIT Kanpur
T R Ramachandran	Visiting Professor, Nonferrous Materials Technology Development Centre, Hyderabad
Mythily Ramaswamy	Professor, Centre for Applicable Mathematics, Tata Institute of Fundamental Research, Bangalore
Pramod Rastogi	Guest Professor, École polytechnique fédérale de Lausanne, Switzerland
Srinivas Reddy	Scholar, translator and musician, Center for Contemporary South Asia, Brown University, USA
Dheeraj Sanghi	Director, Punjab Engineering College, Chandigarh
Shyam Sunder	James L Frank Professor of Accounting, Economics, and Finance, Yale School of Management, USA
Mahesh Tandon	Managing Director, Tandon Consultants Pvt Ltd, New Delhi
Chapin Thomas	Vice President, Corporate Research, Underwriters Laboratories Inc, USA
M Venkataraman	Vice President, Indian Chapter of International Geosynthetics Society

## NON-TEACHING STAFF AGAINST REGULAR POSITIONS

EMPLOYEE NAME	DESIGNATION		
Akshay	Junior Accountant	Switi R Parmar	Junior Assistant
M Armugam	Junior Laboratory Attendant	Shaileshkumar J Patani	Junior Assistant
Suganya Arumugam	Junior Technical Superintendent	Akash Mahendra Kumar Patel	Junior Superintendent
Viral J Asjola*	Senior Library Information Assistant	Arika Patel	Senior Accountant
Babloo	Junior Laboratory Attendant	Bhikhabhai R Patel	Junior Laboratory Attendant
Vinod Kumar Singh Baghel	Supeintending Engineer	Darshan C Patel	Assistant
Palak R Bagiya	Junior Laboratory Assistant	Harshad Patel	Junior Account Officer
Sudeep Narayan Banerjee	System Analyst	Jignesh S. Patel	Laboratory Assistant
Suvakanta Barik	Junior Technical Superintendent	Kamini Patel	Assistant
Raju Beerasant	Junior Laboratory Assistant	Sachin Maganlal Patel	Senior System Analyst
Timir Yakunj Berawala	Junior Assistant	Sanjay T Patel	Junior Laboratory Assistant
Ram Babu Bhagat	Deputy Registrar	Sanket Patel	Junior Technical Superintendent
Rahulendra Bhaskar	Junior Technical Superintendent	Twinkle Patel	Junior Account Officer
Nirav Madanbhai Bhatt	Junior Laboratory Assistant	Darshak H Pathak*	Junior Accountant
Shri Krishan Birhman	Assistant Registrar	Jitendra Pukhraj Pawar	Junior Accountant
Tushar H Brahmbhatt	Laboratory Attendant	Jayesh Prajapati	Junior Laboratory Attendant
Biresh Chaubey	Assistant Registrar	Prajapati Ramanand L	Junior Laboratory Assistant
Divyangi N Chaudhari	Junior Laboratory Assistant	Narendra J Rabadiya	Junior Assistant
Pannaben Chaudhari	Assistant Library Information Officer	Vaibhavi Raulji	Junior Assistant
G C Chaudhary*	Superintending Engineer	Santosh Raut	Superintendent
Rohit Chaudhary	Technical Superintendent	Ishan Raval	Junior Laboratory Assistant
Krupesh Chauhan	Junior Accountant	Pranav Rohit	Assisant Registrar
Pratikkumar K Chavda	Junior Laboratory Assistant	Pavitra Kumar Rout	Junior Accountant
Prem Kumar Chopra	Registrar	Saswati Roy	Assistant Registrar
Tapas Kumar Das	Senior Library Information Assistant	Shibaram Sahoo	Junior Laboratory Attendant
Dinesh B Desai	Junior Laboratory Attendant	Komal Sangtani	Assistant
Varaprasad Dhanikela	Junior Laboratory Assistant	Jigar Shah*	Junior Account Officer
Bhavna V Dharani	Junior Accountant	Sujit Kumar Shah	Assistant
Supin Gopi	Junior Technical Superintendent	Viral Y Shah	Superintendent
Hemant Kumar Gupta	Junior Assistant	Deepak Sharma	Junior Laboratory Assistant
Memo Gupta*	Junior Account Officer	H K Sharma	Deputy Registrar
Tej Bahadur Gurung	Assistant	Mukesh Sharma	Staff Nurse
Laxmi P Hirani	Laboratory Assistant	Gaurav Shukla	Superintendent
Yogesh Dattatraya Jade	Junior Superintendent	Nitin Shukla	Technical Superintendent
N Jayakumar	Assistant Engineer	Gaurav Kumar Singh	Junior Assistant
Meena Joshi	Assisant Registrar	Harish Singh	Junior Assistant
Vishnu Deth J J	Assistant Engineer	Mrugesh R Solanki	Junior Superintendent
Jithesh V K	Superintendent	Tenils Solanki	Superintendent
Payal Kabariya	Junior Assistant	Nilesh Soni	Junior Engineer
Dharmeshkumar V Kapadiya	Laboratory Attendant	Ravi Subhash Soni	Assistant Engineer
Hani M Khamar	Junior Assistant	Hiral Suchak	Junior Accountant
T S Kumbar	Librarian	Raviraj V Sukhadiya	Junior Laboratory Assistant
Dipakkumar K Lalpura	Junior Assistant	Nisha Tahiliani	Junior Accountant
Pijush Majumdar	Assisant Registrar	Sachin S Tawde	Technical Superintendent
Prashant G Makwana	Junior Assistant	Prabhuji Thakor	Junior Laboratory Attendant
Saumya Malavia	Junior Assistant	Supresh Thaleshari	Laboratory Attendant
Vijay Meena	Junior Accountant	Sunny Thomas*	Junior Laboratory Assistant
Jay Mehta	Junior Accountant	Sujit Una*	Junior Superintendent
Parth R Mehta	Junior Assistant	Rajendra Vaishnav	Junior Account Officer
Shreejit Menon	Superintendent	Lakshmipriya G Valappil	Junior Accountant
Laxmi Kant Mishra	Assistant Engineer	Pigushbhai P Vankar	Assistant
Rupali S Mohite	Junior Assistant	Anjanaba R Zala	Junior Accountant
Navdiwala Ankur K	Laboratory Assistant	Devendrasinh D Zala	Driver
Pradipbhai K Ninama	Junior Laboratory Attendant		
Dharmendra S Panchal	Junior Engineer		
Ashish Kumar Pandey	Junior Laboratory Attendant		
Sanjeev Kumar Pandey	Accounts Officer		
Pragnesh Parekh	Technical Superintendent		
Dinesh H Parmar	Physical Training Instructor		

\* For part of the year

## PHD SCHOLARS

NAME OF THE STUDENT	DISCIPLINE	NAME OF SUPERVISOR
Arjun Arya	Biological Engineering	Bhaskar Datta
Pallavi Chilka	Biological Engineering	Bhaskar Datta
Nakshi Nayan Desai	Biological Engineering	Bhaskar Datta
Rajeshkumar Karasanbhai Hadiya	Biological Engineering	Bhaskar Datta
Sanjay Kumar	Biological Engineering	Bhaskar Datta
Chinmayee Shukla	Biological Engineering	Bhaskar Datta
Vinod Morya	Biological Engineering	Chinmay Ghoroi
Chaithra Mayya	Biological Engineering	Dhiraj Devidas Bhatia
Anjali Rajwar	Biological Engineering	Dhiraj Devidas Bhatia
Udisha Singh	Biological Engineering	Dhiraj Devidas Bhatia
Deepshikha Ghosh	Biological Engineering	Mithun Radhakrishna
Abhijeet Ojha	Biological Engineering	Prachi Thareja
Poonam Pandey	Biological Engineering	Sairam Swaroop Mallajosyula
Indumathi S	Biological Engineering	Sameer V Dalvi
Krishna Gautam Bhavsar	Biological Engineering	Sharad Gupta
Joshna Dharmendrabhai Gadhave	Biological Engineering	Sharad Gupta
Pravin Hivare	Biological Engineering	Sharad Gupta
Krittika Ralhan	Biological Engineering	Sharad Gupta
Sumedha Shah	Biological Engineering	Sharad Gupta
Sapna Ranjeetsingh Bisht	Biological Engineering	Sharmistha Majumdar
Thakkar Krishna Kishor Geeta	Biological Engineering	Sharmistha Majumdar
Sanghavi Hiral Manojkumar	Biological Engineering	Sharmistha Majumdar
Richa Rashmi	Biological Engineering	Sharmistha Majumdar
Vasudha Sharma	Biological Engineering	Sharmistha Majumdar
Gitanjali Swarup	Biological Engineering	Sharmistha Majumdar
Rashmi Bhakuni	Biological Engineering	Sivapriya Kirubakaran
Bhoir Siddhant Pandurang	Biological Engineering	Sivapriya Kirubakaran
Bhanu Priya	Biological Engineering	Sivapriya Kirubakaran
Tarushyam Mukherjee	Biological Engineering	Sriram Kanvah Gundimeda
Swaroop Chakraborty	Biological Engineering	Superb Misra
Subhamoy Datta	Biological Engineering	Umashankar Singh
Patel Manthan Maheshbhai	Biological Engineering	Umashankar Singh
Divyeshkumar Amrutbhai Patel	Biological Engineering	Umashankar Singh
Nalini Natarajan	Biological Engineering	Vijay Thiruvengatam
Gayathri P	Biological Engineering	Vijay Thiruvengatam
Nishaben Patel	Biological Engineering	Virupakshi Soppina
Shubham Sharma	Biological Engineering	Virupakshi Soppina
Dipeshwari Janardhan Shewale	Biological Engineering	Virupakshi Soppina
Mohammed Aatif Shahab	Chemical Engineering	Babji Srinivasan
Deepa Dixit	Chemical Engineering	Chinmay Ghoroi
Akshant Govind Kumawat	Chemical Engineering	Chinmay Ghoroi
Aniket Ratnaparkhi	Chemical Engineering	Chinmay Ghoroi
Sophia Varghese	Chemical Engineering	Chinmay Ghoroi
Neetu Varun	Chemical Engineering	Chinmay Ghoroi
Satadru Chakraborty	Chemical Engineering	Kabeer Jasuja
Bhagyashri Gaykwad	Chemical Engineering	Kabeer Jasuja
Gunda Harini	Chemical Engineering	Kabeer Jasuja
Asha Liza James	Chemical Engineering	Kabeer Jasuja
Anshul Rasyotra	Chemical Engineering	Kabeer Jasuja
Sonali Gore	Chemical Engineering	Kaustubh Sunil Rane
Pothukuchi Naga Venkata Rajesh Pavan	Chemical Engineering	Mithun Radhakrishna
Nitin Kumar Singh	Chemical Engineering	Mithun Radhakrishna
Shital Arunbhai Amin	Chemical Engineering	Nitin U Padhiyar
Mohd Umair Iqbal	Chemical Engineering	Nitin U Padhiyar
Mankad Jaivik Kartik	Chemical Engineering	Nitin U Padhiyar
Patil Parag Shankar	Chemical Engineering	Nitin U Padhiyar
Marappu Sai Reddy Geetha	Chemical Engineering	Prachi Thareja
Saket Kumar	Chemical Engineering	Prachi Thareja
Panchami Patel	Chemical Engineering	Prachi Thareja
Vighnesh Prasad	Chemical Engineering	Prachi Thareja
Ashima Choudhury	Chemical Engineering	Pratyush Dayal
Jaya Prasanna Kumar D	Chemical Engineering	Pratyush Dayal
Priyanka Kameswari Mani Nemani	Chemical Engineering	Pratyush Dayal
Rajput Vandana	Chemical Engineering	Pratyush Dayal
S R Apoorva	Chemical Engineering	Sameer V Dalvi
Aditya Teja K V V N S K Guduru	Chemical Engineering	Sameer V Dalvi
Aaqib Haroon Khan	Chemical Engineering	Sameer V Dalvi
Komal Pandey	Chemical Engineering	Sameer V Dalvi
Rupanjali Gurprasad Prasad	Chemical Engineering	Sameer V Dalvi
Anju Tyagi	Chemistry	Abhijit Mishra
Afsar Ali	Chemistry	Arnab Dutta
Srewashi Das	Chemistry	Arnab Dutta
Dependu Dolui	Chemistry	Arnab Dutta
Santanu Ghorai	Chemistry	Arnab Dutta



NAME OF THE STUDENT	DISCIPLINE	NAME OF SUPERVISOR
Shikha Khandelwal	Chemistry	Arnab Dutta
Ab Qayoom Mir	Chemistry	Arnab Dutta
Rinku Choubey	Chemistry	Bhaskar Datta
Amarjyoti Das Mahapatra	Chemistry	Bhaskar Datta
Venkata Mani Padmaja Duppalapudi	Chemistry	Chandrakumar Appayee
Rohtash Kumar	Chemistry	Chandrakumar Appayee
Mahesh Kutwal	Chemistry	Chandrakumar Appayee
Sarkale Abhijeet Madhukar	Chemistry	Chandrakumar Appayee
Vidyasagar Maurya	Chemistry	Chandrakumar Appayee
Anu Anu	Chemistry	Iti Gupta
Neha Manav	Chemistry	Iti Gupta
Vijayalakshmi Pandey	Chemistry	Iti Gupta
Pranav Umesh Bhagwat	Chemistry	Sairam Swaroop Mallajosyula
Jaydeepsinh Pravinsinh Chavda	Chemistry	Sairam Swaroop Mallajosyula
Hemanth H	Chemistry	Sairam Swaroop Mallajosyula
Chythra J N	Chemistry	Sairam Swaroop Mallajosyula
Lata Rani	Chemistry	Sairam Swaroop Mallajosyula
Snehanjali Behera	Chemistry	Saumyakanti Khatua
Ashish Kar	Chemistry	Saumyakanti Khatua
Diptiranjana Paital	Chemistry	Saumyakanti Khatua
Varsha Thambi	Chemistry	Saumyakanti Khatua
Shaik Althaf	Chemistry	Sivapriya Kirubakaran
Haritha D	Chemistry	Sivapriya Kirubakaran
Johnson Delna J K George	Chemistry	Sivapriya Kirubakaran
Javeena	Chemistry	Sivapriya Kirubakaran
Srimadhavi R	Chemistry	Sivapriya Kirubakaran
Rahul Bandopant Dahiwadkar	Chemistry	Sriram Kanvah Gundimeda
Deepmala	Chemistry	Sriram Kanvah Gundimeda
Palash Jana	Chemistry	Sriram Kanvah Gundimeda
Katla Jagdish Kumar	Chemistry	Sriram Kanvah Gundimeda
Kum Beena Kumari	Chemistry	Sriram Kanvah Gundimeda
Anuj Bisht	Chemistry	Sudhanshu Sharma
Shikha Dhakar	Chemistry	Sudhanshu Sharma
Bhanu Pratap Singh Gangwar	Chemistry	Sudhanshu Sharma
Ravi Shankar Mishra	Chemistry	Sudhanshu Sharma
Divya Vyas	Chemistry	Sudhanshu Sharma
Pradeep Yadav	Chemistry	Sudhanshu Sharma
Aman Bajpai	Chemistry	Sudipta Basu
Jaypalsing Mangalsing Ingle	Chemistry	Sudipta Basu
Deekshi Angira	Chemistry	Vijay Thiruvengadam
Brijesh Kumar Agarwal	Civil Engineering	Ajanta Sachan
Raviraj Nigambhai Dave	Civil Engineering	Ajanta Sachan
Majid Hussain	Civil Engineering	Ajanta Sachan
Naman Prantal Kantesaria	Civil Engineering	Ajanta Sachan
Nanditha J S	Civil Engineering	Ajanta Sachan
Aparna Shrivastava	Civil Engineering	Ajanta Sachan
Sujay Vipulbhai Teli	Civil Engineering	Ajanta Sachan
Falak Vats	Civil Engineering	Ajanta Sachan
Kolli Mohan Krishna	Civil Engineering	Amit Prashant
Sukrit Sharma	Civil Engineering	Amit Prashant
Bala Harsha Srusti	Civil Engineering	Amit Prashant
Pavan Yadav	Civil Engineering	Amit Prashant
Prabhakar	Civil Engineering	Amit Prashant
Narsiram Gurjar	Civil Engineering	Dhiman Basu
Abhi Mittal	Civil Engineering	Dhiman Basu
Aniket B Panchal	Civil Engineering	Dhiman Basu
Ravi Kanth Sriwastav	Civil Engineering	Dhiman Basu
Nakrani Dharmit Ashwin	Civil Engineering	Gaurav Srivastava
Nasar Ahmad Khan	Civil Engineering	Gaurav Srivastava
Vikash Kumar Singh	Civil Engineering	Gaurav Srivastava
Dravesh Yadav	Civil Engineering	Gaurav Srivastava
Saboo Anirudh Satishkumar	Civil Engineering	Manish Kumar (CE)
Mohmad Aslam Sheikh	Civil Engineering	Manish Kumar (CE)
Shashank Shekhar	Civil Engineering	Manish Kumar (CE)
Yash Duggad	Civil Engineering	Manish Kumar (ES)
Ashwin Singh	Civil Engineering	Manish Kumar (ES)
Kaling Taki	Civil Engineering	Manish Kumar (ES)
Chandrashekhar Bhagat	Civil Engineering	Pranab Kumar Mohapatra
Rajkumari Kaurav	Civil Engineering	Pranab Kumar Mohapatra
Prabhat Kumar	Civil Engineering	Pranab Kumar Mohapatra
Abhishek Kumar Pandey	Civil Engineering	Pranab Kumar Mohapatra
Bidhan Kumar Sahu	Civil Engineering	Pranab Kumar Mohapatra
Wahidullah Hakim Sfai	Civil Engineering	Pranab Kumar Mohapatra
Divya Dhaval Upadhyay	Civil Engineering	Pranab Kumar Mohapatra
Miss Pooja Pawar	Civil Engineering	Sanjay Singh Bora
Pravin Vasudev Bhasme	Civil Engineering	Udit Bhatia

NAME OF THE STUDENT	DISCIPLINE	NAME OF SUPERVISOR
Angana Borah	Civil Engineering	Udit Bhatia
Rasikh Nazir	Civil Engineering	Udit Bhatia
Saran Aadhar	Civil Engineering	Vimal Mishra
Swarup Dangar	Civil Engineering	Vimal Mishra
Rahul Kumar	Civil Engineering	Vimal Mishra
Rajesh Singh	Civil Engineering	Vimal Mishra
Amar Deep Tiwari	Civil Engineering	Vimal Mishra
Pranjali Kulkarni	Cognitive Science	Angus McBlane
Haby Koshy Mathew	Cognitive Science	Jaison A Manjaly
Kinley Mehra	Cognitive Science	Jaison A Manjaly
Veli Milind Mehta	Cognitive Science	Jaison A Manjaly
Abhishek Sahai	Cognitive Science	Jaison A Manjaly
Mehta Krishnesh Shantilal	Cognitive Science	Jaison A Manjaly
Aditya Singh	Cognitive Science	Jaison A Manjaly
Shruti Goyal	Cognitive Science	Krishna Prasad Miyapuram
Anvita Gopal	Cognitive Science	Malavika Subramanyam
Nithin George	Cognitive Science	Meera Mary Sunny
Kishore Jagini	Cognitive Science	Meera Mary Sunny
Sohhom Bandyopadhyay	Cognitive Science	Nithin V George
Gaurav Panthi	Cognitive Science	Pratik Kiran Mutha
Dhwani Parimal Sadaphal	Cognitive Science	Pratik Kiran Mutha
Goldy Yadav	Cognitive Science	Pratik Kiran Mutha
Pradeep Raj K B	Cognitive Science	Uttama Lahiri
Vishav Jyoti	Cognitive Science	Uttama Lahiri
Pragya Verma	Cognitive Science	Uttama Lahiri
Rachit Chhaya	Computer Science and Engineering	Anirban Dasgupta
Dipan Dey	Computer Science and Engineering	Anirban Dasgupta
Jayesh Vallabhbhai Malaviya	Computer Science and Engineering	Anirban Dasgupta
Shriraj Pramod Sawant	Computer Science and Engineering	Anirban Dasgupta
Supratim Shit	Computer Science and Engineering	Anirban Dasgupta
Ananya Shrivastava	Computer Science and Engineering	Anirban Dasgupta
Choudhari Jayesh Tulsidas	Computer Science and Engineering	Anirban Dasgupta
Anant Bihar Kumar	Computer Science and Engineering	Bireswar Das
Shiv Dutt Sharma	Computer Science and Engineering	Bireswar Das
Dhara Rameshbhai Thakkar	Computer Science and Engineering	Bireswar Das
Tom Issac	Computer Science and Engineering	Joycee M Mekie
Pankaj Pandey	Computer Science and Engineering	Krishna Prasad Miyapuram
Akash Pareek	Computer Science and Engineering	Manoj Gupta
Shruti Singh	Computer Science and Engineering	Mayank Singh
Harshil Mittal	Computer Science and Engineering	Neeldhara Misra
Aditi Sethia	Computer Science and Engineering	Neeldhara Misra
Rishiraj Adhikary	Computer Science and Engineering	Nipun Batra
Zeel Bharatkumar Patel	Computer Science and Engineering	Nipun Batra
Sudhakar Kumawat	Computer Science and Engineering	Shanmuganathan Raman
Indra Deep Mastan	Computer Science and Engineering	Shanmuganathan Raman
Vivek Kumar Bind	Earth Sciences	Sanjay Singh Bora
Shekhar Sharan Goyal	Earth Sciences	Sanjay Singh Bora
Anukritika Raj	Earth Sciences	Sanjay Singh Bora
Shikha Sharma	Earth Sciences	Sanjay Singh Bora
Pritha Chakravarti	Earth Sciences	Vikrant Jain
Shantamoy Guha	Earth Sciences	Vikrant Jain
Nikita Karnatak	Earth Sciences	Vikrant Jain
Ravi Kant Prasad	Earth Sciences	Vikrant Jain
Ramendra Sahoo	Earth Sciences	Vikrant Jain
Akarsh A	Earth Sciences	Vimal Mishra
Anukesh K A	Earth Sciences	Vimal Mishra
Shanti Shwarup Mahto	Earth Sciences	Vimal Mishra
Piue Ghosh	Electrical Engineering	Arup Lal Chakraborty
Chandan Kumar Jha	Electrical Engineering	Arup Lal Chakraborty
Prashant Jha	Electrical Engineering	Arup Lal Chakraborty
Anirban Roy	Electrical Engineering	Arup Lal Chakraborty
Zarin A S	Electrical Engineering	Arup Lal Chakraborty
Rahul Madbhavi	Electrical Engineering	Babji Srinivasan
Kadam Sujay Dilip	Electrical Engineering	Harish Palanthandalam Madapusi
Pramod Bharti	Electrical Engineering	Joycee M Mekie
Chandan Kumar Jha	Electrical Engineering	Joycee M Mekie
Kailash Prasad	Electrical Engineering	Joycee M Mekie
Neelam Surana	Electrical Engineering	Joycee M Mekie
Sneha Nitin Ved	Electrical Engineering	Joycee M Mekie
Rishabh Abhinav	Electrical Engineering	Naran Pindoriya
Bhattar Poornachandratejasvi Laxman	Electrical Engineering	Naran Pindoriya
Bala Sai Kiran Patnam	Electrical Engineering	Naran Pindoriya
Batchu Raja Sekhar	Electrical Engineering	Naran Pindoriya
Sachinkumar Babubhai Suthar	Electrical Engineering	Naran Pindoriya
Abhishek Tiwari	Electrical Engineering	Naran Pindoriya
Shruti De	Electrical Engineering	Nihar Ranjan Mohapatra

NAME OF THE STUDENT	DISCIPLINE	NAME OF SUPERVISOR
Ganeriwala Mohit Dineshkumar	Electrical Engineering	Nihar Ranjan Mohapatra
Payel Ghosh	Electrical Engineering	Nihar Ranjan Mohapatra
Munukutla L N Srinivas Karthik	Electrical Engineering	Nihar Ranjan Mohapatra
Ramandeep Kaur	Electrical Engineering	Nihar Ranjan Mohapatra
Kumari Neeraj Kaushal	Electrical Engineering	Nihar Ranjan Mohapatra
Nishant Kumar	Electrical Engineering	Nihar Ranjan Mohapatra
Seema Kumari	Electrical Engineering	Nihar Ranjan Mohapatra
Satyajit Mohapatra	Electrical Engineering	Nihar Ranjan Mohapatra
Rutu Amit Patel	Electrical Engineering	Nihar Ranjan Mohapatra
Monika Pokharia	Electrical Engineering	Nihar Ranjan Mohapatra
Aishwarya Singh	Electrical Engineering	Nihar Ranjan Mohapatra
Bhoir Mandar Suresh Smita	Electrical Engineering	Nihar Ranjan Mohapatra
Sankha Subhra Bhattacharjee	Electrical Engineering	Nithin V George
Dwaipayan Ray	Electrical Engineering	Nithin V George
Shekhar Kumar Yadav	Electrical Engineering	Nithin V George
Sharad Joshi	Electrical Engineering	Nitin Khanna
Atal Tewari	Electrical Engineering	Nitin Khanna
Vishwas Vinodkumar Trivedi	Electrical Engineering	Nitin Khanna
Vinay Verma	Electrical Engineering	Nitin Khanna
Balaganesh B	Electrical Engineering	Ragavan K
Swasti Rani Chakrabarty	Electrical Engineering	Ragavan K
V Naveen Deepak	Electrical Engineering	Ragavan K
Upadhyay Parth Tarun	Electrical Engineering	Ragavan K
Manju Bhashini V	Electrical Engineering	Ragavan K
Soumyashree Soumyaprasanna Panda	Electrical Engineering	Ravi Hegde
Devdutt Tripathi	Electrical Engineering	Ravi Hegde
Hardik Shyam Vyas	Electrical Engineering	Ravi Hegde
Aalok Gangopadhyay	Electrical Engineering	Shanmuganathan Raman
Gagan Kanojia	Electrical Engineering	Shanmuganathan Raman
Diptiben Patel	Electrical Engineering	Shanmuganathan Raman
Adyasha Dash	Electrical Engineering	Uttama Lahiri
Solanki Dhaval	Electrical Engineering	Uttama Lahiri
Priya Pallavi	Electrical Engineering	Uttama Lahiri
Rane Dharma Parashuram	Electrical Engineering	Uttama Lahiri
Shashi Ranjan	Electrical Engineering	Uttama Lahiri
Thanglienmang Haokip	Humanities and Social Sciences	Ambika Aiyadurai
Ayushi Rai	Humanities and Social Sciences	Ambika Aiyadurai
Vijay Ramkaran Tripathi	Humanities and Social Sciences	Amit Prashant
Aparna Nampoothiri	Humanities and Social Sciences	Angus McBlane
Swati Satish Joshi	Humanities and Social Sciences	Arka Chattopadhyay
Prashant Mishra	Humanities and Social Sciences	Arka Chattopadhyay
Shivani Sharma	Humanities and Social Sciences	Arnapurna Rath
Udita Banerjee	Humanities and Social Sciences	Jaison A Manjaly
Sohini Gayen	Humanities and Social Sciences	Jaison A Manjaly
Manoj Singh Rana	Humanities and Social Sciences	Jaison A Manjaly
Nagireddy Neelakanteswar Reddy	Humanities and Social Sciences	Jaison A Manjaly
Maithili Tagare	Humanities and Social Sciences	Jaison A Manjaly
Nilesh Vilas Thube	Humanities and Social Sciences	Jaison A Manjaly
Parul Tiwari	Humanities and Social Sciences	Jaison A Manjaly
Jahnu Bharadwaj	Humanities and Social Sciences	Madhumita Sengupta
Jagriti Jagriti	Humanities and Social Sciences	Madhumita Sengupta
Shreya Sen	Humanities and Social Sciences	Madhumita Sengupta
Susanna G	Humanities and Social Sciences	Malavika Subramanyam
Mukta Gundi	Humanities and Social Sciences	Malavika Subramanyam
Ankita Rameshkumar Shah	Humanities and Social Sciences	Malavika Subramanyam
Anupam Sharma	Humanities and Social Sciences	Malavika Subramanyam
Ankita Nair	Humanities and Social Sciences	Michel Danino
Dyotana Banerjee	Humanities and Social Sciences	Mona Mehta
Jerene George	Humanities and Social Sciences	Mona Mehta
Janaki R Nair	Humanities and Social Sciences	Mona Mehta
Ingole Prashant Ramprasad	Humanities and Social Sciences	Mona Mehta
Bhavna Harchandani	Humanities and Social Sciences	Nishaant Choksi
Deepika Kumari Meena	Humanities and Social Sciences	Nishaant Choksi
Vysakh R	Humanities and Social Sciences	Nishaant Choksi
Camellia Biswas	Humanities and Social Sciences	Sharada Visweswara Channarayapatna
Anusmita Devi	Humanities and Social Sciences	Tannistha Samanta
Ashwin Tripathi	Humanities and Social Sciences	Tannistha Samanta
Nimisha John	Humanities and Social Sciences	Vivek Venkitaraman Narayan
Rakesh Behera	Materials Science and Engineering	Abhay Raj Gautam
Ranjit Kumar Dehury	Materials Science and Engineering	Abhay Raj Gautam
Nilabh Dish	Materials Science and Engineering	Abhay Raj Gautam
Sasmita Majhi	Materials Science and Engineering	Abhijit Mishra
Pramina Kumari Awadh Bihari Pandey	Materials Science and Engineering	Abhijit Mishra
Deepakkumar Ganpat Prajapati	Materials Science and Engineering	Abhijit Mishra
Poonam Ratrey	Materials Science and Engineering	Abhijit Mishra
Mahesh V P	Materials Science and Engineering	Amit Arora



NAME OF THE STUDENT	DISCIPLINE	NAME OF SUPERVISOR
Sheetal Rameshchandra Pandya	Materials Science and Engineering	Amit Arora
Amit Kumar Singh	Materials Science and Engineering	Amit Arora
Narendra Bandaru	Materials Science and Engineering	Emila Panda
Krishna Manwani	Materials Science and Engineering	Emila Panda
Ravi Teja Mittireddi	Materials Science and Engineering	Emila Panda
Tvarit Ashokbhai Patel	Materials Science and Engineering	Emila Panda
Rachee	Materials Science and Engineering	Emila Panda
Shivam Shukla	Materials Science and Engineering	Emila Panda
Param Punj Singh	Materials Science and Engineering	Raghavan Ranganathan
Ajay Mohan	Materials Science and Engineering	Sudhanshu Sharma
Prateek Goyal	Materials Science and Engineering	Superb Misra
Bharti Malvi	Materials Science and Engineering	Superb Misra
Archini Paruthi	Materials Science and Engineering	Superb Misra
Simranjit Singh	Materials Science and Engineering	Superb Misra
Aditiben Dineshbhai Savalia	Mathematics	Akshaa Watwani
Shivajee	Mathematics	Akshaa Watwani
Sudip Pandit	Mathematics	Arnab Saha
Rajat Gupta	Mathematics	Atul Dixit
Rahul Kumar	Mathematics	Atul Dixit
Shibam Dhama	Mathematics	Chetan Devkishin Pahlajani
Somnath Ashok Gandai	Mathematics	Chetan Devkishin Pahlajani
Saraswati Girish Nanoti	Mathematics	Chetan Devkishin Pahlajani
Ekta Punia	Mathematics	Chetan Devkishin Pahlajani
Om Prakash	Mathematics	Indranath Sengupta
Kamalesh Saha	Mathematics	Indranath Sengupta
Pranjal Srivastava	Mathematics	Indranath Sengupta
Dharmendra Kumar	Mathematics	Jagmohan Tyagi
Priyank Kumar	Mathematics	Jagmohan Tyagi
Ayush Jaiswal	Mathematics	Sanjay Amrutiya
Rajat Mishra	Mechanical Engineering	Amit Arora
Zeeshan Ahmed	Mechanical Engineering	Atul Bhargav
Sarode Ajinkya Ashok	Mechanical Engineering	Atul Bhargav
Renika Baruah	Mechanical Engineering	Atul Bhargav
Ravinder Kumar Daroch	Mechanical Engineering	Atul Bhargav
Rishabh Mathur	Mechanical Engineering	Atul Bhargav
Vivek Kumar Singh	Mechanical Engineering	Atul Bhargav
Ankita Sinha	Mechanical Engineering	Atul Bhargav
Sk Hossen Ali	Mechanical Engineering	Dilip Srinivas Sundaram
Rajdeep Singh Devra	Mechanical Engineering	Dilip Srinivas Sundaram
Md Modassir Firdaus	Mechanical Engineering	Dilip Srinivas Sundaram
Prasanna P Kulkarni	Mechanical Engineering	Dilip Srinivas Sundaram
Jyotishraj Thoudam	Mechanical Engineering	Dilip Srinivas Sundaram
Ranjita Dash	Mechanical Engineering	Harish Palanthandalam Madapusi
Shail Jadav	Mechanical Engineering	Harish Palanthandalam Madapusi
Aishwarya Rao	Mechanical Engineering	Harish Palanthandalam Madapusi
Mrugesh Joshi	Mechanical Engineering	Jaichander Swaminathan
Chirag Gopalbhai Patel	Mechanical Engineering	Jaichander Swaminathan
Diptangshu Paul	Mechanical Engineering	Jayaprakash K R
Rohit Gupta	Mechanical Engineering	Madhu Vadali
Adarsh Kumar	Mechanical Engineering	Pratik Kiran Mutha
Inzamam Ahmad	Mechanical Engineering	Uddipta Ghosh
Malay Hiteshkumar Vyas	Mechanical Engineering	Uddipta Ghosh
Pratik Prajapati	Mechanical Engineering	Vineet Vashista
NSS Sanjeevi	Mechanical Engineering	Vineet Vashista
Yogesh Singh	Mechanical Engineering	Vineet Vashista
Ravi Kant	Mechanical Engineering	Vinod Narayanan
Prasanth P Nair	Mechanical Engineering	Vinod Narayanan
Ananthu J P	Mechanical Engineering	Vinod Narayanan
Akash Unnikrishnan	Mechanical Engineering	Vinod Narayanan
Lalit Pathak	Physics	Anand Sengupta
Amit Reza	Physics	Anand Sengupta
Soumen Roy	Physics	Anand Sengupta
Abhishek Chowdhuri	Physics	Arpan Bhattacharyya
Kousik Loho	Physics	Baradhwaj Panayancheri Coleppa
Agnivo Sarkar	Physics	Baradhwaj Panayancheri Coleppa
Biswabhusan Dhal	Physics	Gopinadhan Kalon
Suvigya Kaushik	Physics	Gopinadhan Kalon
Lalita Saini	Physics	Gopinadhan Kalon
Ashish Kumar Shukla	Physics	Krishna Kanti Dey
Chakresh Singh	Physics	Krishna Kanti Dey
Richa Tripathi	Physics	Krishna Prasad Miyapuram
Rahul Shastri	Physics	Prasanna Venkatesh Balasubramanian
Nisha Hirallal	Physics	Rupak Banerjee
Utsav	Physics	Rupak Banerjee
Fairoos C	Physics	Sudipta Sarkar
Rik Chakraborty	Physics	Sudipta Sarkar

NAME OF THE STUDENT	DISCIPLINE	NAME OF SUPERVISOR
Rajes Ghosh	Physics	Sudipta Sarkar
Arnab Maiti	Physics	Sudipta Sarkar
Akash Kumar Mishra	Physics	Sudipta Sarkar
Manoj Singh	Physics	Sudipta Sarkar
Gowthama K K	Physics	Vinod Chandra
Manu Kurian	Physics	Vinod Chandra

## PHD SCHOLARS UNDER IITGN-PRL MoU

NAME OF THE STUDENT	DISCIPLINE
Shivani Baliyan	Earth Sciences
Nisha Bharti	Earth Sciences
Swagatika Chakra	Earth Sciences
Harish	Earth Sciences
Partha Sarathi Jena	Earth Sciences
Sanjit Kumar Jena	Earth Sciences
Milan Kumar	Earth Sciences
Harsh Oza	Earth Sciences
Amit Pandey	Earth Sciences
Deepak Kumar Rai	Earth Sciences
Harsh Raj	Earth Sciences
Alka Rani	Earth Sciences
Km Ajayeta Rath	Earth Sciences
Jibanjyoti Routray	Earth Sciences
Deepika Sahoo	Earth Sciences
Siddhartha Sarkar	Earth Sciences
Himanshu Saxena	Earth Sciences
Naman Deep Singh	Earth Sciences
Yash Srivastava	Earth Sciences
Aman Abhishek	Physics
Satyam Agarwal	Physics
Sana Ahmed	Physics
Richa Arya	Physics
Ashish	Physics
Rukmani Bai	Physics
Soumik Bandyopadhyay	Physics
Anshika Bansal	Physics
Kimi Khungree Basumatary	Physics
Naval Kishor Bhadari	Physics
Akansha Bhardwaj	Physics
Pranav Bhardwaj	Physics
Bharti	Physics
Ayan Biswas	Physics
Kamlesh Bora	Physics
Sandipan Borthakur	Physics
Kaustav Chakraborty	Physics
Birendra Chhotaray	Physics
Bharathiganesh D	Physics
Bijoy Dalal	Physics
Rituparna Das	Physics
Sushant Dutta	Physics
Aarthy E	Physics
Deepak Gaur	Physics
Anupam Ghosh	Physics
Shivangi Gupta	Physics
Chauhan Bhavesh Jaikumar	Physics
Nijil Lal C K	Physics
Aravind K	Physics
Abhijit Kayal	Physics
Akanksha Khandelwal	Physics
Prashant Kumar	Physics
Abhay Kumar	Physics
Ankit Kumar	Physics
Deepak Kumar	Physics

NAME OF THE STUDENT	DISCIPLINE
Hridesh Kumar	Physics
Tanmay Kumar	Physics
Vipin Kumar	Physics
Sunil Kumar	Physics
Neeraj Kumari	Physics
Subhith Kumar P M	Physics
Devaprasad M	Physics
Subir Mandal	Physics
Yogesh Kumar Maurya	Physics
Arvind Mishra	Physics
Sarika Mishra	Physics
Dayanand Mishra	Physics
Ramanuj Mitra	Physics
Gourav Mitra	Physics
Biswajit Mondal	Physics
Shanwlee Sow Mondal	Physics
Vardaan Mongia	Physics
Vishnudath K N	Physics
Pravin Kumar Natwariya	Physics
Sushree Sangeeta Nayak	Physics
Neha	Physics
Madhusudan P	Physics
Supriya Pan	Physics
Santunu Kumar Panda	Physics
Neha Panwar	Physics
Priyank Parashari	Physics
Monika Devi Parmar	Physics
Binal Patel	Physics
Satyajit Patil	Physics
Archita Rai	Physics
Vineet Rawat	Physics
Rishitosh	Physics
Sandeep Rout	Physics
Arijit Roy	Physics
Mithun Neelakandan P S	Physics
Hrushikesh Sable	Physics
Sovan Saha	Physics
Suraj Sahu	Physics
Ranadeep Sarkar	Physics
Saumya Jyoti Sarkar	Physics
Varun Sharma	Physics
Anju Rani Sharma	Physics
Tanya Sharma	Physics
Sudipta Show	Physics
Saurabh Kumar Shukla	Physics
Balbeer Singh	Physics
Surendra Vikram Singh	Physics
Vishal Singh	Physics
Sandeep Singh	Physics
Meghna Soni	Physics
Vikas Soni	Physics
Kumar Rithvik Sreekantham	Physics
Nidhi Tripathi	Physics
Kshitiz Upadhyay	Physics
Namita Uppal	Physics
Shefali Uttam	Physics
Yogesh	Physics

# MTECH STUDENTS

NAME OF THE STUDENT	DISCIPLINE	FACULTY ADVISOR
<b>2019 BATCH</b>		
Aakriti Bansal	Biological Engineering	Sharad Gupta
Kahkashan Bansal	Biological Engineering	Sharad Gupta
Chandrama Ghosh	Biological Engineering	Sharad Gupta
Tanusree Halder	Biological Engineering	Sharad Gupta
Ashadul Haque	Biological Engineering	Sharad Gupta
Sukesh Kashyap	Biological Engineering	Sharad Gupta
Bodhidipra Mukherjee	Biological Engineering	Sharad Gupta
Chandan Nandi	Biological Engineering	Sharad Gupta
Shiny Pandit	Biological Engineering	Sharad Gupta
Adarsh Patel	Biological Engineering	Sharad Gupta
Axita Patel	Biological Engineering	Sharad Gupta
Tamalika Paul	Biological Engineering	Sharad Gupta
Jayishnu Roy	Biological Engineering	Sharad Gupta
Akshaya S	Biological Engineering	Sharad Gupta
Ananya Sharma	Biological Engineering	Sharad Gupta
Pankhuri Sinha	Biological Engineering	Sharad Gupta
Pankaj Yadav	Biological Engineering	Sharad Gupta
Chaitra Borkar	Chemical Engineering	Nitin U Padhiyar
Meketaye Endeshaw	Chemical Engineering	Nitin U Padhiyar
Arvind Gupta	Chemical Engineering	Nitin U Padhiyar
Vruddhi Babulal Jani	Chemical Engineering	Nitin U Padhiyar
Amit Mishra	Chemical Engineering	Nitin U Padhiyar
Saketharam N	Chemical Engineering	Nitin U Padhiyar
Niraliben Patel	Chemical Engineering	Nitin U Padhiyar
Bhowmick Patidar	Chemical Engineering	Nitin U Padhiyar
Gourav Shukla	Chemical Engineering	Nitin U Padhiyar
Rachana Singhal	Chemical Engineering	Nitin U Padhiyar
Kandarp Sojitra	Chemical Engineering	Nitin U Padhiyar
Mayank Srivastava	Chemical Engineering	Nitin U Padhiyar
Vijay Kumar Bandla	Civil Engineering	Ajanta Sachan
Pranav Chandrakar	Civil Engineering	Ajanta Sachan
Sudhanshu Dixit	Civil Engineering	Ajanta Sachan
Zarnain Fayaz	Civil Engineering	Ajanta Sachan
Spandhana M Haridas	Civil Engineering	Ajanta Sachan
Dilkhush Janwa	Civil Engineering	Ajanta Sachan
Akash Kale	Civil Engineering	Ajanta Sachan
Sujata Kulkarni	Civil Engineering	Ajanta Sachan
Shiva Kumar	Civil Engineering	Ajanta Sachan
Dip Mehta	Civil Engineering	Ajanta Sachan
Aiswarya Menon	Civil Engineering	Ajanta Sachan
Jayalaxmi Ngasepam	Civil Engineering	Ajanta Sachan
Deeptija Pandey	Civil Engineering	Ajanta Sachan
Abhishek Pandole	Civil Engineering	Ajanta Sachan
Somnath Paul	Civil Engineering	Ajanta Sachan
Ved Prakash	Civil Engineering	Ajanta Sachan
Tarun Singh Rajput	Civil Engineering	Ajanta Sachan
Ashray Saxena	Civil Engineering	Ajanta Sachan
Drashti Chiragbhai Shah	Civil Engineering	Ajanta Sachan
Jahnvi Hiteshkumar Shah	Civil Engineering	Ajanta Sachan
Suchit Singh	Civil Engineering	Ajanta Sachan
Pavithra C T	Civil Engineering	Ajanta Sachan
Urmin Vegad	Civil Engineering	Ajanta Sachan
Jaideep Singh Bankoti	Computer Science and Engineering	Anirban Dasgupta
Shaik Mahaboob Jani Basha	Computer Science and Engineering	Anirban Dasgupta
Jatin Kumar	Computer Science and Engineering	Anirban Dasgupta
Jitendra Kumar	Computer Science and Engineering	Anirban Dasgupta
Jyoti Kumari	Computer Science and Engineering	Anirban Dasgupta
Vagadiya Jenilkumar Nareshbhai	Computer Science and Engineering	Anirban Dasgupta
Utpal Podder	Computer Science and Engineering	Anirban Dasgupta
Prajwal Kumar singh	Computer Science and Engineering	Anirban Dasgupta
Kiran Dhangar	Earth System Science	Manish Kumar (ES)
Arindom Gogoi	Earth System Science	Manish Kumar (ES)
Himanshu Hemant	Earth System Science	Manish Kumar (ES)
Nitin Jain	Earth System Science	Manish Kumar (ES)
Ankit Mishra	Earth System Science	Manish Kumar (ES)
Subhasis Mishra	Earth System Science	Manish Kumar (ES)
Anant Misra	Earth System Science	Manish Kumar (ES)
Debashis Nath	Earth System Science	Manish Kumar (ES)
Samrat Pathi	Earth System Science	Manish Kumar (ES)
Akshay Rajeev	Earth System Science	Manish Kumar (ES)
Pandurangi Aditya	Electrical Engineering	Himanshu Shekhar
Ayush Agarwal	Electrical Engineering	Himanshu Shekhar



NAME OF THE STUDENT	DISCIPLINE	FACULTY ADVISOR
Tushar Agarwal	Electrical Engineering	Himanshu Shekhar
Rahul Bardhan	Electrical Engineering	Himanshu Shekhar
Rajat Borkar	Electrical Engineering	Himanshu Shekhar
Virender Dan	Electrical Engineering	Himanshu Shekhar
Sachin Dandge	Electrical Engineering	Himanshu Shekhar
Roshni Dhanamudi	Electrical Engineering	Himanshu Shekhar
Pushpak Dhote	Electrical Engineering	Himanshu Shekhar
Abhilash Dubey	Electrical Engineering	Himanshu Shekhar
Karthik Gudiboina	Electrical Engineering	Himanshu Shekhar
Shrihari Gunjal	Electrical Engineering	Himanshu Shekhar
Syed Nafiz Hasan	Electrical Engineering	Himanshu Shekhar
Jainendra Jain	Electrical Engineering	Himanshu Shekhar
Sajal Jain	Electrical Engineering	Himanshu Shekhar
Kuldeep Jajoria	Electrical Engineering	Himanshu Shekhar
Prateek K	Electrical Engineering	Himanshu Shekhar
Ravins Katiyar	Electrical Engineering	Himanshu Shekhar
Purna Kukadiya	Electrical Engineering	Himanshu Shekhar
Anoop Kumar	Electrical Engineering	Himanshu Shekhar
Rajesh Kumar	Electrical Engineering	Himanshu Shekhar
Suraj Kumar	Electrical Engineering	Himanshu Shekhar
Devesh Kumar	Electrical Engineering	Himanshu Shekhar
Mayank Nautiyal	Electrical Engineering	Himanshu Shekhar
Rajlaxmi Pandey	Electrical Engineering	Himanshu Shekhar
Mallikarjun Pidagannavar	Electrical Engineering	Himanshu Shekhar
Naveen Puri	Electrical Engineering	Himanshu Shekhar
Prarabdh Raipurkar	Electrical Engineering	Himanshu Shekhar
Gajendra Rajput	Electrical Engineering	Himanshu Shekhar
Ailneni Rakshitha Rao	Electrical Engineering	Himanshu Shekhar
Henil Shah	Electrical Engineering	Himanshu Shekhar
Mansi Shah	Electrical Engineering	Himanshu Shekhar
Smit Shah	Electrical Engineering	Himanshu Shekhar
Pratik Sharma	Electrical Engineering	Himanshu Shekhar
Priyanka Vinodkumar Sharma	Electrical Engineering	Himanshu Shekhar
Abhishek Singh	Electrical Engineering	Himanshu Shekhar
Aparna Singh	Electrical Engineering	Himanshu Shekhar
Satish Singh	Electrical Engineering	Himanshu Shekhar
Vivek Singh	Electrical Engineering	Himanshu Shekhar
Shivani Singhal	Electrical Engineering	Himanshu Shekhar
Pravesh Srivastava	Electrical Engineering	Himanshu Shekhar
Boyapati Suresh	Electrical Engineering	Himanshu Shekhar
Harshul Tandan	Electrical Engineering	Himanshu Shekhar
Bachu Tej	Electrical Engineering	Himanshu Shekhar
Aabila Tharzeen	Electrical Engineering	Himanshu Shekhar
Vamsi Krishna Vasa	Electrical Engineering	Himanshu Shekhar
Siddhartha Verma	Electrical Engineering	Himanshu Shekhar
Anushka Yadav	Electrical Engineering	Himanshu Shekhar
Prathmesh Kiran Bhadane	Materials Science and Engineering	Emila Panda
Sameekshya Das	Materials Science and Engineering	Emila Panda
Som Dixit	Materials Science and Engineering	Emila Panda
Priya Suryakant Gadekar	Materials Science and Engineering	Emila Panda
Rohit Gahlot	Materials Science and Engineering	Emila Panda
Bhumika Longakshi	Materials Science and Engineering	Emila Panda
Vats Nitinkumar Shah	Materials Science and Engineering	Emila Panda
Ankita Shahi	Materials Science and Engineering	Emila Panda
Anurag Sharma	Materials Science and Engineering	Emila Panda
Akshay Kumar Soni	Materials Science and Engineering	Emila Panda
Aman Verma	Materials Science and Engineering	Emila Panda
Chirag Anilkumar	Mechanical Engineering	Dilip Srinivas Sundaram
Sagar Aryal	Mechanical Engineering	Dilip Srinivas Sundaram
Rahul Das	Mechanical Engineering	Dilip Srinivas Sundaram
Sarth Arpit Dubey	Mechanical Engineering	Dilip Srinivas Sundaram
Rahul Reddy Dudyala	Mechanical Engineering	Dilip Srinivas Sundaram
Anshul Gour	Mechanical Engineering	Dilip Srinivas Sundaram
Pooja Gupta	Mechanical Engineering	Dilip Srinivas Sundaram
Shubham Gupta	Mechanical Engineering	Dilip Srinivas Sundaram
Omkar Pratap Jadhav	Mechanical Engineering	Dilip Srinivas Sundaram
Chimnay Jategaonkar	Mechanical Engineering	Dilip Srinivas Sundaram
Paritosh Kavra	Mechanical Engineering	Dilip Srinivas Sundaram
Roshith Mittakolu	Mechanical Engineering	Dilip Srinivas Sundaram
Aditya Natu	Mechanical Engineering	Dilip Srinivas Sundaram
Omkar Dilip Paranjape	Mechanical Engineering	Dilip Srinivas Sundaram
Shivam Sahu	Mechanical Engineering	Dilip Srinivas Sundaram
Utkarsh Srivastava	Mechanical Engineering	Dilip Srinivas Sundaram
Vaibhavkumar Dhansukhbhai Tandel	Mechanical Engineering	Dilip Srinivas Sundaram
Shubham Verma	Mechanical Engineering	Dilip Srinivas Sundaram

NAME OF THE STUDENT	DISCIPLINE	THESIS SUPERVISORS
<b>2018 BATCH</b>		
Kuldeep Sharma	Biological Engineering	Bhaskar Datta
Debarpan Ghosh	Biological Engineering	Dhiraj Bhatia
Sumit Kharbanda	Biological Engineering	Dhiraj Bhatia
Rupsha Mukherjee	Biological Engineering	Kaustubh Rane
Somesh Shingane	Biological Engineering	Pratik Mutha
Chinmaya Panda	Biological Engineering	Sharad Gupta
Dibyadarsi Nepal	Biological Engineering	Sharmistha M
Pragati Saxena	Biological Engineering	Sivapriya Kirubakaran
Arthi Hariharan	Biological Engineering	Umashankar Singh
Hoime Banerjee	Biological Engineering	Vijay Thiruvengatam
Surabhi Sharma	Biological Engineering	Virupakshi Soppina
Aravintha Siva	Biological Engineering	Virupakshi Soppina
Md Nasre Alam	Chemical Engineering	Babji Srinivasan
Mahindra Choudhary	Chemical Engineering	Babji Srinivasan
Ahteshamul Haq	Chemical Engineering	Babji Srinivasan
Rishabh Patidar	Chemical Engineering	Kabeer Jasuja
Akash Varma	Chemical Engineering	Kabeer Jasuja
Samyabrata Chatterjee	Chemical Engineering	Mithun Radhakrishna
Md Zafar Ahmed	Chemical Engineering	Nitin U Padhiyar
Krushan Mukeshbhai Patel	Chemical Engineering	Prachi Thareja
Vishesh Sharma	Chemical Engineering	Pratyush Dayal
Rajat Zope	Chemical Engineering	Pratyush Dayal
Saurabh Deshmukh	Chemical Engineering	Sameer V Dalvi
Swarupkumar Surwase	Chemical Engineering	Sameer V Dalvi
Sheetal Gujrati	Civil Engineering	Ajanta Sachan
Tanaya Mukati	Civil Engineering	Ajanta Sachan
Shivesh Shandilaya	Civil Engineering	Ajanta Sachan
Adarsh Thakur	Civil Engineering	Ajanta Sachan
Satish Masoori	Civil Engineering	Amit Prashant
Lovkesh Shivani	Civil Engineering	Amit Prashant
Sahil Wani	Civil Engineering	Amit Prashant
Kartikya Bharadwaj	Civil Engineering	Dhiman Basu
Suvil Kashinath Mahagaonkar	Civil Engineering	Dhiman Basu
Avisina Charitej Reddy	Civil Engineering	Dhiman Basu
Rahul Nautanbhai Khatri	Civil Engineering	Gaurav Srivastava
Manu Mathur	Civil Engineering	Gaurav Srivastava
Renjini R	Civil Engineering	Gaurav Srivastava
Rohitashva Kumar Singh	Civil Engineering	Gaurav Srivastava
Ajay Chandran P V	Civil Engineering	Gaurav Srivastava
Vishal Ghanshyambhai Vaghela	Civil Engineering	Gaurav Srivastava
Ankush Jain	Civil Engineering	Manish Kumar (CE)
Mohammedsalim Drshahalam Khan	Civil Engineering	Manish Kumar (CE)
Parthesh Sunilbhai Oza	Civil Engineering	Manish Kumar (CE)
Surender Raj V	Civil Engineering	Manish Kumar (CE)
Bhargav Vaishnav	Civil Engineering	Manish Kumar (CE)
Nivedita Pradhan	Civil Engineering	Manish Kumar (ES)
Deepak Kumar	Civil Engineering	Pranab Mohapatra
Shalineer Bharat	Civil Engineering	Vimal Mishra
Kunal Bhardwaj	Civil Engineering	Vimal Mishra
Roop Choudhuri	Computer Science and Engineering	Anirban Dasgupta
Sreejith Srikrishnan	Computer Science and Engineering	Anirban Dasgupta
Dhananjay Sonawane	Computer Science and Engineering	Krishna Miyapuram
Kushpal Yadav	Computer Science and Engineering	Krishna Miyapuram
Krishan Kant Chugh	Computer Science and Engineering	Manoj Gupta
Neelay Upadhyaya	Computer Science and Engineering	Manoj Gupta
Sayak Chowdhury	Computer Science and Engineering	Mayank Singh
Soumita Kundu	Computer Science and Engineering	Mayank Singh
Vivek Srivastava	Computer Science and Engineering	Mayank Singh
Prathamesh Upadhyay	Computer Science and Engineering	Neeldhara Misra
Karan Kumar	Computer Science and Engineering	Nipun Batra
Souvik Roy	Computer Science and Engineering	Nipun Batra
Darshita Jain	Computer Science and Engineering	Shanmuganathan Raman
Chandan Kumar	Computer Science and Engineering	Shanmuganathan Raman
Alok Kumar Thakur	Earth System Science	Manish Kumar (ES)
Indra Tripathi	Earth System Science	Pranab Mohapatra
Juliana Rex	Earth System Science	Pranab Mohapatra
Anushka Vashistha	Earth System Science	Vikrant Jain
Deepesh Agarwal	Electrical Engineering	Babji Srinivasan
Diptesh Datta	Electrical Engineering	Joycee Mekie
Suurendra Maurya	Electrical Engineering	Joycee Mekie
Ankita Nandi	Electrical Engineering	Joycee Mekie
Jitesh Sah	Electrical Engineering	Joycee Mekie
Gyanendra K Tiwari	Electrical Engineering	Joycee Mekie
Ashish Kumar	Electrical Engineering	N Ramakrishnan

NAME OF THE STUDENT	DISCIPLINE	THESIS SUPERVISORS
Anandsingh Chauhan	Electrical Engineering	Naran M Pindoriya
Piyush Dewangan	Electrical Engineering	Nihar R Mohapatra
Shubham Jain	Electrical Engineering	Nihar R Mohapatra
Priyanjana Pal	Electrical Engineering	Nihar R Mohapatra
Shubham Patil	Electrical Engineering	Nihar R Mohapatra
Rakesh Kumar Pothal	Electrical Engineering	Nihar R Mohapatra
Krishna Kumar	Electrical Engineering	Nithin George
Sonu Kumar	Electrical Engineering	Nithin George
Deepanshu Singh	Electrical Engineering	Nithin George
Neha Bhadani	Electrical Engineering	Nitin Khanna
Vishal Prasad	Electrical Engineering	Nitin Khanna
Amit Bhongade	Electrical Engineering	Ragavan K
Kumar Bhanu Khandelwal	Electrical Engineering	Ragavan K
J Sujatha	Electrical Engineering	Ragavan K
Ankit Verma	Electrical Engineering	Ragavan K
Roshni Agrawal	Electrical Engineering	Rajendran S
Kaushal Dadsena	Electrical Engineering	Rajendran S
Biplob Nath	Electrical Engineering	Ravi Hegde
Shubham Garg	Electrical Engineering	Shanmuganathan Raman
Ashish Tiwari	Electrical Engineering	Shanmuganathan Raman
Ranga Teja Pidathala	Materials Science and Engineering	Abhay Raj Singh Gautam
Priya Tiwari	Materials Science and Engineering	Abhay Raj Singh Gautam
Pranav Trivedi	Materials Science and Engineering	Abhijit Mishra
Sudha Gautam	Materials Science and Engineering	Amit Arora
Gaurav Jogi	Materials Science and Engineering	Amit Arora
Akshay Srivastava	Materials Science and Engineering	Amit Arora
Nishkarsh Srivastava	Materials Science and Engineering	Amit Arora
Swagat Das	Materials Science and Engineering	Chinmay Ghoroi
Rohit Dahule	Materials Science and Engineering	Emila Panda
Charishma Gowripattapu	Materials Science and Engineering	Jyoti Mukhopadhyay
Gaurav Anilkumar Yadav	Materials Science and Engineering	Jyoti Mukhopadhyay
Sidharth Sarmah	Materials Science and Engineering	Ravi Sastri Ayyagari
Ankit Jaiswal	Materials Science and Engineering	Superb Misra
Saurabh Soni	Materials Science and Engineering	Superb Misra
Sai Ajay Challa	Mechanical Engineering	Atul Bhargav
Hemanth R	Mechanical Engineering	Atul Bhargav
Deepam Dubey	Mechanical Engineering	Dilip Sundaram
Ruchi Thosare	Mechanical Engineering	Dilip Sundaram
Karanbir Sidhu	Mechanical Engineering	Harish PM
Aqbal Ahmad	Mechanical Engineering	Jaichander Swaminathan
Anuj Varier	Mechanical Engineering	Jaichander Swaminathan
Swarup Jana	Mechanical Engineering	Jyoti Mukhopadhyay
Rama Balhara	Mechanical Engineering	Madhu Vadali
Utsavkumar Mistry	Mechanical Engineering	Madhu Vadali
Chandan Kumar	Mechanical Engineering	N Ramakrishanan
Dewansh Shrivastava	Mechanical Engineering	N Ramakrishanan
Dinesh Bauskar	Mechanical Engineering	Pranab Mohapatra
Rishabh Rakeshkumar Patel	Mechanical Engineering	Pranab Mohapatra
Utkarsh Sanjaybhai Upadhyay	Mechanical Engineering	Pranab Mohapatra
Devki Verma	Mechanical Engineering	Ravi Sastri Ayyagari
Sayali Jadhav	Mechanical Engineering	Uddipta Ghosh
Harvansh Dandelica	Mechanical Engineering	Vinod Narayanan

## 2017 BATCH

Gaurav Khandelwal	Civil Engineering	Amit Prashant
Rahul Singh	Earth System Science	Amit Prashant
Ayush Nema	Chemical Engineering	Babji Srinivasan
Kanchan Sharma	Chemical Engineering	Chinmay Ghoroi
Yash Goyal	Civil Engineering	Dhiman Basu
Mohit Lakhani	Civil Engineering	Dhiman Basu
Nikhil O	Civil Engineering	Gaurav Srivastava
Prajwal Patidar	Civil Engineering	Gaurav Srivastava
Perna Sarkar	Civil Engineering	Gaurav Srivastava
Ravi Shankar	Civil Engineering	Gaurav Srivastava
Arunav Choudhury	Mechanical Engineering	K R Jayaprakash
Sanjeev Kumar	Mechanical Engineering	K R Jayaprakash
Ajay Kumar Ucheniya	Electrical Engineering	Madhu Vadali
Himanshi Dewangan	Civil Engineering	Manish Kumar (CE)
Abhimanyu	Mechanical Engineering	Uddipta Ghosh

## 2016 BATCH

Saurabh Lanje	Mechanical Engineering	Vineet Vashista
---------------	------------------------	-----------------



## MSc STUDENTS

NAME OF THE STUDENT	DISCIPLINE
<b>2019 BATCH</b>	
Jyoti Chauhan	Chemistry
Hiren Jitendrabhai Dedaniya	Chemistry
Gagan Deep	Chemistry
Kunzang Dolkar	Chemistry
Ganesh Jabotra	Chemistry
Mrityunjay Kumar Jha	Chemistry
Ravi Kanwant	Chemistry
Alok Kumar	Chemistry
Mohit Kumar	Chemistry
Siddharth Kumar	Chemistry
Sanju Kumari	Chemistry
Varsha Kumari	Chemistry
Banwari Kumar Mandal	Chemistry
Manjeet	Chemistry
Ananya Rana	Chemistry
Ankita Sharma	Chemistry
Shivangi Sharma	Chemistry
Somya	Chemistry
Sudhir	Chemistry
Pradeep Kumar Yadav	Chemistry
Bukunmi Adewumi	Cognitive Science
Nashra Ahmad	Cognitive Science
Caren Felicia	Cognitive Science
Uthara Hari	Cognitive Science
Sanya Jain	Cognitive Science
Nikita Anil Kumar	Cognitive Science
Sriranjani Manivasagam	Cognitive Science
Kratika Mujmer	Cognitive Science
Rithwik Narayanan	Cognitive Science
Vikram Singh Negi	Cognitive Science
Anjana C P	Cognitive Science
Meenam Pious	Cognitive Science
Tharan S	Cognitive Science
Palak Sharma	Cognitive Science
Vaishnavi Sivaprasad	Cognitive Science
Nanthini A	Mathematics
Khusboo Agarwal	Mathematics
Goutam Barman	Mathematics
Krushna Sakya Bhavar	Mathematics
Milton Biswas	Mathematics
Hari Singh Dhayal	Mathematics
Abhijeet Dundappa Duggani	Mathematics
G Gomathy	Mathematics
Himanshu	Mathematics
Rudrendra Kashyap	Mathematics
Akshay Chandrakant Kharade	Mathematics
Akshya Kumar	Mathematics
Sanjay Kumar	Mathematics
Prajapati Rakesh Maganlal	Mathematics
Avi Nava Mukhopadhyay	Mathematics
Bhunesh Nagar	Mathematics
Mayank Nagar	Mathematics
Mohammad Naved	Mathematics
Priya	Mathematics
Tulsa Pujhari	Mathematics
Rasika Ramakrishna	Mathematics
Ankit Sharma	Mathematics
Raman Sharma	Mathematics
Sarthak Sharma	Mathematics
Shiva	Mathematics
Anju Singh	Mathematics
Chandni Rajeshkumar Thakkar	Mathematics
Bhaskar Verma	Mathematics
Mukesh Kumar Verma	Mathematics
Vijay Kumar Baliyan	Physics
Gagan Kumar Bhatt	Physics
Neelabha Chatterjee	Physics
Asha Chaudhary	Physics
Ravi Chopra	Physics

NAME OF THE STUDENT	DISCIPLINE
Neha Choudhary	Physics
Radhika Gandhi	Physics
Siddharth Gangwar	Physics
Siddharth S Kashyap	Physics
Akshat Khanna	Physics
Asha Kumari	Physics
Sunita Kumari	Physics
Nikhil Milind Londhe	Physics
Jayesthi Mali	Physics
Shubham Malik	Physics
Sheela Meena	Physics
Kaushal Meena	Physics
Chotoo Singh Mirasee	Physics
Shraddha Mohnani	Physics
Pankaj	Physics
Pratibha	Physics
Rashmi	Physics
Shubham Rastogi	Physics
Sanjoy Saha	Physics
Gajendra Kumar Saini	Physics
Nikita Sharma	Physics
Priyanshu Sharma	Physics
Akshay Padmakar Tandulje	Physics
Vinod	Physics
Vipin Yadav	Physics
Yogesh Kumar Yadav	Physics

## 2018 BATCH

Jaya Bharti	Chemistry
Manab Diasi	Chemistry
Abhinav Gautam	Chemistry
Kritika Jaiswal	Chemistry
Harsh Kumar	Chemistry
Pankaj Kumar	Chemistry
Shivam Kumar	Chemistry
Nilesh Mathur	Chemistry
Monika	Chemistry
Parul	Chemistry
Mansi Porwal	Chemistry
Priya	Chemistry
Shaiborlang Rapsang	Chemistry
Rimjhim	Chemistry
Anjali Sharma	Chemistry
Tannu	Chemistry
Tarun	Chemistry
Priyavrat Vashisth	Chemistry
Ojasvi Verma	Chemistry
Anadi Mehta	Cognitive Science
Anushka Oza	Cognitive Science
Divya Reji	Cognitive Science
Ekta Khemchandani	Cognitive Science
Esha Sharma	Cognitive Science
Ihsan K	Cognitive Science
Ishita Arun	Cognitive Science
Pooja R	Cognitive Science
Prashanti Ganesh	Cognitive Science
Rachelle Chandraan	Cognitive Science
Raunak Swarnkar	Cognitive Science
Ruhi Bhanap	Cognitive Science
Samruddhi Damle	Cognitive Science
Alka Baliyan	Mathematics
Ambhore Siddhi Balu	Mathematics
Kuntal Banerjee	Mathematics
Goutam Biswas	Mathematics
Surendra Choudhary	Mathematics
Yogesh Kumar Gupta	Mathematics
Md Kashif Jamal	Mathematics
Vikash Jangid	Mathematics
Aashima Kaushal	Mathematics
Vineet Kumar	Mathematics
Sneha Kumari	Mathematics
Tannu Kumari	Mathematics
Ravi Mahala	Mathematics
Lakhani Devanshi Rameshbhai	Mathematics

NAME OF THE STUDENT	DISCIPLINE
Joshi Bhavin Rasikbhai	Mathematics
Rakesh Kumar Rath	Mathematics
Rahul Rohilla	Mathematics
Kshama Sehra	Mathematics
Bhawani Shankar	Mathematics
Lokesh Sharma	Mathematics
Nikita Sharma	Mathematics
Vaibhava Srivastava	Mathematics
Suresh Suman	Mathematics
Deo Mihir Vilas	Mathematics
Surbhi Warkade	Mathematics
Ashish Ahlawat	Physics
Zayid Ahmed	Physics
Md Sahnawaz Alam	Physics
Vishal Badoliya	Physics
Ravi Shankar Bunkar	Physics
Rachana Choudhary	Physics
Debtroy Das	Physics
Vivek Dhaka	Physics
Diptesh Gayen	Physics
Nitish Goyal	Physics
Anil Kumar	Physics
Prashant Kumar	Physics
Nitin Kumari	Physics
Adesh Kushwaha	Physics
Neeraj Kumar Meena	Physics
Siyaram Mina	Physics
Nividha	Physics
Ayush Kant Ranga	Physics
Aparna Rathi	Physics
Sarvdeep Sangwan	Physics
Aritra Sen	Physics
Bharat Singh	Physics
Neha Singh	Physics
Saroj Yadav	Physics
Sneha Yadav	Physics

## 2017 BATCH

Greeshma Mohan	Cognitive Science
Shubham Kumar	Mathematics
Ravi Kumar	Physics
Kanshokmi Tuithung	Physics

## 2016 BATCH

Kamaraj P	Mathematics
-----------	-------------

## MA STUDENTS

NAME OF THE STUDENT	DISCIPLINE
<b>2019 BATCH</b>	
Kairavi Vatsal Acharya	Humanities and Social Sciences
Adyasha Behera	Humanities and Social Sciences
Chaitanya Anand Chalkh	Humanities and Social Sciences
Ashok Danavath	Humanities and Social Sciences
Joita Das	Humanities and Social Sciences
Ajay Devda	Humanities and Social Sciences
Bhargavi G	Humanities and Social Sciences
Mohd Javaid	Humanities and Social Sciences
Vithita Jha	Humanities and Social Sciences
Fasna K	Humanities and Social Sciences
Rashid K K	Humanities and Social Sciences
Gurpreet Kaur	Humanities and Social Sciences
Shruti Krishnan	Humanities and Social Sciences
Neha Kumar	Humanities and Social Sciences
Ekata Lahiri	Humanities and Social Sciences
Sanjukta Manna	Humanities and Social Sciences
Abhishek Matta	Humanities and Social Sciences
Shruti Mehta	Humanities and Social Sciences
Rajasee Mukherjee	Humanities and Social Sciences
Dhruv Abhay Nimbalkar	Humanities and Social Sciences
Saikat Panda	Humanities and Social Sciences
Gehna Parcha	Humanities and Social Sciences
Moin Qureshi	Humanities and Social Sciences
Prateeti Rajjak	Humanities and Social Sciences
Abhishek Ramesh	Humanities and Social Sciences
Sandhra S	Humanities and Social Sciences
Khushboo Sahrawat	Humanities and Social Sciences
Ishita Sharma	Humanities and Social Sciences
Aardra Sreekumar	Humanities and Social Sciences

NAME OF THE STUDENT	DISCIPLINE
Sneha Sathyan V V	Humanities and Social Sciences
Vishal Verma	Humanities and Social Sciences
Renna Zehra	Humanities and Social Sciences

## 2018 BATCH

Swaroop Bhatkar	Humanities and Social Sciences
Devdutta Chakraborty	Humanities and Social Sciences
Raqib Dar	Humanities and Social Sciences
Noyonika Das	Humanities and Social Sciences
Sevgi Demiroglu	Humanities and Social Sciences
Debasmita Ghosh	Humanities and Social Sciences
Kritika Gosain	Humanities and Social Sciences
Simrith Hundal	Humanities and Social Sciences
Zaphya Jena	Humanities and Social Sciences
Dimple Khattar	Humanities and Social Sciences
Prerna Khobragade	Humanities and Social Sciences
Vasundhara Krishnan	Humanities and Social Sciences
Bubun Mahakud	Humanities and Social Sciences
Amritha Mather	Humanities and Social Sciences
Devika Menon	Humanities and Social Sciences
Rujuta Naik	Humanities and Social Sciences
Shruti Nair	Humanities and Social Sciences
Ausula Prashanth	Humanities and Social Sciences
Sayantani Saraswati	Humanities and Social Sciences
Ahila Sekar	Humanities and Social Sciences
Gnana Selvam	Humanities and Social Sciences
Punya Suri	Humanities and Social Sciences
Akansha Yashasvi	Humanities and Social Sciences

## 2017 BATCH

Devika Jayssell	Humanities and Social Sciences
-----------------	--------------------------------

## BTECH-MSC DUAL DEGREE STUDENTS

NAME OF THE STUDENT	DISCIPLINE
<b>2015 BATCH</b>	
Chitta Sai Pavan	Electrical Engineering & Physics

## BTECH-MTECH DUAL DEGREE STUDENTS

<b>2016 BATCH</b>	
Chennuri Prateek	Electrical Engineering

## 2014 BATCH

B Pranav Chakra Varthy	Civil Engineering
------------------------	-------------------

## BTECH DUAL MAJOR STUDENTS

### 2016 BATCH

NAME OF THE STUDENT	DISCIPLINE
Abhavya Chandra	Chemical Engineering & Computer Science and Engineering
Anish Dubey	Chemical Engineering & Computer Science and Engineering
Akhilesh Ravi	Electrical Engineering & Computer Science and Engineering
Deshpande Shubham Gopal	Mechanical Engineering & Computer Science and Engineering
Chitipolu Gowtham	Mechanical Engineering & Computer Science and Engineering
Nisarg Ujjainkar	Mechanical Engineering & Computer Science and Engineering

## PGDIIT STUDENTS

### 2019 BATCH

NAME OF THE STUDENT	DISCIPLINE
Piyush Kumar	Electrical Engineering

### 2018 BATCH

Aman Sirajbhai Kazani	Civil Engineering
Jitendra Prasad Agrawal	Electrical Engineering

## BTECH STUDENTS

NAME OF THE STUDENT	DISCIPLINE
<b>2019 BATCH</b>	
Gohil Vishwaraj B	Chemical Engineering
Saransh Rakesh Chaudhary	Chemical Engineering
Akhilesh Chauhan	Chemical Engineering
Akshay Chourasiya	Chemical Engineering
Shreyansh Chourasiya	Chemical Engineering
Dhruv Darda	Chemical Engineering
Reuben Shibu Devanesan	Chemical Engineering
Rishabh Gupta	Chemical Engineering
Muhammad Yusuf Hassan	Chemical Engineering
Dhanashree Sanjay Ingale	Chemical Engineering
Payyavula Jagadeesh	Chemical Engineering
Piyush Jagarwal	Chemical Engineering
Pahuni Jain	Chemical Engineering
Bayad Isha Jairaj	Chemical Engineering
Laxman Khatik	Chemical Engineering
Avinash Kumar	Chemical Engineering
Vishal Kumar	Chemical Engineering
Digvijay Vaibhav Mali	Chemical Engineering
Ramolia Harshit Mansukhbhai	Chemical Engineering
Bavaria Meetkumar	Chemical Engineering
Sanchit Mittal	Chemical Engineering
Mude Harshavardhan Naik	Chemical Engineering
Tahir Naquash	Chemical Engineering
Deepak Patel	Chemical Engineering
Vashishtha Gautam Prashant	Chemical Engineering
Shah Revant	Chemical Engineering
Monika Saini	Chemical Engineering
Rohit Shashikant Sevalkar	Chemical Engineering
Hiral Sharma	Chemical Engineering
Shreyshi Singh	Chemical Engineering
Aditya Shekhar Sinha	Chemical Engineering
Deep Samir Thakkar	Chemical Engineering
Sresth Tosniwal	Chemical Engineering
Sai Yashverdhan	Chemical Engineering
Shreyash Agrawal	Civil Engineering
Arushi Arnav	Civil Engineering
Yawalkar Abhishek Ganpati	Civil Engineering
Snehal Dnyaneshwar Gohad	Civil Engineering
Rohit Goyal	Civil Engineering
Jetty Hemasagar	Civil Engineering
Shashwat Rajesh Jain	Civil Engineering
Pallav Jain	Civil Engineering
Patel Agam Jitendra	Civil Engineering
Ashok Kumar	Civil Engineering
Ritesh Kumar	Civil Engineering
Manish Laxkar	Civil Engineering
Prashant Malav	Civil Engineering
Choudhary Xhitij Manish	Civil Engineering
Aakash Meena	Civil Engineering
Akash Meena	Civil Engineering
Anushka Niti	Civil Engineering
Upashana Pankaj	Civil Engineering
Shashwat Parashar	Civil Engineering
Raavi Vinodkumar Patel	Civil Engineering
Hemant Poonia	Civil Engineering
Purohit Harshil Praval	Civil Engineering
Dudhatra Harsh Pravinkumar	Civil Engineering
Gurrata Priyanka	Civil Engineering
Ashwani Sunil Rai	Civil Engineering
Shivam Rai	Civil Engineering
Deependra Kumar Rajoria	Civil Engineering
Paarth Sachan	Civil Engineering
Himanshu Singhal	Civil Engineering
Keshav Kumar Verma	Civil Engineering
Harsh Vinayak	Civil Engineering
Sachin Yadav	Civil Engineering
Ayush Anand	Computer Science and Engineering
Varun Barala	Computer Science and Engineering
Likhita Baswani	Computer Science and Engineering
Brahmmadandi Devendhar	Computer Science and Engineering
Hitarth Gandhi	Computer Science and Engineering
Viramgami Gaurav	Computer Science and Engineering
Eshan Randhir Gujarathi	Computer Science and Engineering
Chauhan Mihir Harshadkumar	Computer Science and Engineering

NAME OF THE STUDENT	DISCIPLINE
Mahika Om Jaguste	Computer Science and Engineering
Paras Jain	Computer Science and Engineering
Chetan Kishore	Computer Science and Engineering
Akash Kumar	Computer Science and Engineering
Basavala Prashant Kumar	Computer Science and Engineering
Hardik Mahur	Computer Science and Engineering
Rithik Maligi	Computer Science and Engineering
Bhoomika Mandloi	Computer Science and Engineering
Divyanshu Meena	Computer Science and Engineering
Manas Mulpuri	Computer Science and Engineering
Ramireddy Lakshmi Nageswari	Computer Science and Engineering
Hrushti Naik	Computer Science and Engineering
Giriya Sai Narasimha	Computer Science and Engineering
Abhigyan Martin Ninama	Computer Science and Engineering
Shridhar Sominath Pawar	Computer Science and Engineering
Gunuru Manoj Taraka Ramarao	Computer Science and Engineering
Mekala Rishitha Ravi	Computer Science and Engineering
Tumati Rohith Kumar Reddy	Computer Science and Engineering
Shantanu Sahu	Computer Science and Engineering
Aditya Shakya	Computer Science and Engineering
V P Shivasankaran	Computer Science and Engineering
Kanishk Singh	Computer Science and Engineering
Lavti Shubh Sunil	Computer Science and Engineering
Talari Venkata Sunny	Computer Science and Engineering
Nalamolu Jaya Surya Vamsi	Computer Science and Engineering
G B Harsha Vardhan	Computer Science and Engineering
Bodala Yajurvedh	Computer Science and Engineering
Satyam Anand	Electrical Engineering
Chelli Santhosh Chand	Electrical Engineering
Koushik Chandra Chenna	Electrical Engineering
Sonal Choudhary	Electrical Engineering
Hiten Ferwani	Electrical Engineering
Kewat Shubham Ganpati	Electrical Engineering
Anjali Milind Gawai	Electrical Engineering
Patel Rajan Girishbhai	Electrical Engineering
Paras Gupta	Electrical Engineering
More Yash Hiren	Electrical Engineering
Sakshi Jagtap	Electrical Engineering
Ajitesh Joshi	Electrical Engineering
Achal Kanojia	Electrical Engineering
Pranav Kanwat	Electrical Engineering
Desai Aadesh Ketan	Electrical Engineering
Dheeraj Kumar	Electrical Engineering
Shubham Kumar	Electrical Engineering
Anurag Kurle	Electrical Engineering
Nipun Mahajan	Electrical Engineering
Pindi Krishna Mohan	Electrical Engineering
Sama Sai Shreya Mudiraj	Electrical Engineering
Nikhav	Electrical Engineering
Mula Sai Ruthvik Reddy	Electrical Engineering
Earandi Saineeth	Electrical Engineering
Ninad Parthiv Shah	Electrical Engineering
Tarun Sharma	Electrical Engineering
Sai Shubham	Electrical Engineering
Deepak Singh	Electrical Engineering
Shreya Singh	Electrical Engineering
Chintalapati Sreevidya	Electrical Engineering
Aryamann Tomar	Electrical Engineering
Swar Jatin Upadhyay	Electrical Engineering
G S V Abhiram	Materials Science and Engineering
Ayush Agrawal	Materials Science and Engineering
Umang Agrawal	Materials Science and Engineering
Pandit Shubham Bhagvandas	Materials Science and Engineering
Sayan Biswas	Materials Science and Engineering
Rahul Dev Gupta	Materials Science and Engineering
Abhishek Janagal	Materials Science and Engineering
Desai Rushik Jatin	Materials Science and Engineering
Prateek Kumar Jha	Materials Science and Engineering
Siddharth Joshi	Materials Science and Engineering
Vishwas Joshi	Materials Science and Engineering
Ajay Karwasara	Materials Science and Engineering
Jitender Kumar	Materials Science and Engineering
Mohit Kumar	Materials Science and Engineering
Palakurthy Chetan Kumar	Materials Science and Engineering
S N Sai Kumar	Materials Science and Engineering
Poarth Madan	Materials Science and Engineering
Thumar Meet	Materials Science and Engineering



NAME OF THE STUDENT	DISCIPLINE
Sameer Khan Mehar	Materials Science and Engineering
Pratham Kanaigalal Panchal	Materials Science and Engineering
Juhi Alpeshkumar Parikh	Materials Science and Engineering
Eshika Pathak	Materials Science and Engineering
Durgesh Patil	Materials Science and Engineering
Patel Vashisth Priteshbhai	Materials Science and Engineering
Rudresh Rai	Materials Science and Engineering
Shirodkar Soham Rajesh	Materials Science and Engineering
Shelke Snehal Rajkumar	Materials Science and Engineering
Bikkumalla Rishitha	Materials Science and Engineering
Shubham Saurabh	Materials Science and Engineering
C Faheem Shanavas	Materials Science and Engineering
Guntoorkar Chaitanya Shashikant	Materials Science and Engineering
Tamma Sowmya Sri	Materials Science and Engineering
Siddhi Pravin Surawar	Materials Science and Engineering
Nimit Agarwal	Mechanical Engineering
Kanishh Bhagat	Mechanical Engineering
Siddhu Budithi	Mechanical Engineering
Deep Kant Dave	Mechanical Engineering
Mandalia Harsh Devendrabhai	Mechanical Engineering
Adarsh Golait	Mechanical Engineering
Neeraj Gothwal	Mechanical Engineering
Krishnam Hasija	Mechanical Engineering
Pulkit Jain	Mechanical Engineering
Soni Vishal Jayesh	Mechanical Engineering
Akshata Naykoo Kokane	Mechanical Engineering
Kritika Kumawat	Mechanical Engineering
Insha Mansuri	Mechanical Engineering
Pintu Kumar Meena	Mechanical Engineering
Rahul Mina	Mechanical Engineering
Sanskar Anil Nalkande	Mechanical Engineering
Nikita	Mechanical Engineering
Saagar Parikh	Mechanical Engineering
Tejendra Patel	Mechanical Engineering
Patel Videh Prerakbhai	Mechanical Engineering
Aniket Rajnish	Mechanical Engineering
Rishabh Rohil	Mechanical Engineering
Savudam Sai Sathvik	Mechanical Engineering
Sneha Shamrao Sawale	Mechanical Engineering
Dhvani Manish Shah	Mechanical Engineering
Aryan Jitesh Shah	Mechanical Engineering
Preet S Shah	Mechanical Engineering
Gaurav Sharma	Mechanical Engineering
Md Amir Shohail	Mechanical Engineering
Somesh Pratap Singh	Mechanical Engineering
Manvendra Singh Songara	Mechanical Engineering
Prayagi Ishan Sunil	Mechanical Engineering
Sanjay Venkitesh	Mechanical Engineering
Shubham Verma	Mechanical Engineering
Anand Kumar Yadav	Mechanical Engineering
Sourav Yadav	Mechanical Engineering

## 2018 BATCH

Shah Jay Ashish	Chemical Engineering
Vishal Bamania	Chemical Engineering
Dhanesh Jagdish Bhutada	Chemical Engineering
Prasanna D	Chemical Engineering
Khandare Vaibhav Dilip	Chemical Engineering
Parmar Hariharan Dnyaneshwar	Chemical Engineering
Souritra Garai	Chemical Engineering
Aditi Gera	Chemical Engineering
Bhavya Gupta	Chemical Engineering
Nitin Kumar Gupta	Chemical Engineering
Bhatt Pratyush Hemant	Chemical Engineering
Kartik Hillal	Chemical Engineering
Sakshi Yogesh Kabra	Chemical Engineering
Chavan Ashish Kishor	Chemical Engineering
Sumit Kumar	Chemical Engineering
Manidhar M	Chemical Engineering
Lavanya Naik	Chemical Engineering
Thakar Devanshu Nilesh	Chemical Engineering
Atul Patidar	Chemical Engineering
Baheti Sakshi Prabhulal	Chemical Engineering
Daga Parth Prakash	Chemical Engineering
Darren R	Chemical Engineering
N T Ramakrishnan	Chemical Engineering
A K Gokul Raman	Chemical Engineering

NAME OF THE STUDENT	DISCIPLINE
Tella Selva Sowmya Rani	Chemical Engineering
Mrityunjay Saraf	Chemical Engineering
Aman Sharma	Chemical Engineering
Tanmay Sharma	Chemical Engineering
Amit Kumar Sunda	Chemical Engineering
Sardar Priyanka Sunil	Chemical Engineering
Taha Mohammad Syed	Chemical Engineering
Maitreya Thakur	Chemical Engineering
Malve Aishwarya Ajay	Civil Engineering
Anas Ali	Civil Engineering
Aman	Civil Engineering
Avinash	Civil Engineering
Yogesh Kumar Dhawan	Civil Engineering
Yashi Gaur	Civil Engineering
Bhanu Jarwal	Civil Engineering
Boddu Sai Gowri Jhansi	Civil Engineering
Amlin Jose	Civil Engineering
Hitesh Joya	Civil Engineering
Hardik Khichi	Civil Engineering
Trivedi Shubhang Krishnakant	Civil Engineering
Robin Kumar	Civil Engineering
Dave Hari Manish	Civil Engineering
Lodha Ayush Manojkumar	Civil Engineering
Ashish Kumar Meena	Civil Engineering
Utkarsh Nanda	Civil Engineering
Rahul Patel	Civil Engineering
Preeti	Civil Engineering
Ingale Sahil Purushottam	Civil Engineering
Gondalia Dhruvi Ramniklal	Civil Engineering
Kamlesh Arun Sawadekar	Civil Engineering
Vaibhav Sharma	Civil Engineering
Bhanu Pratap Singh	Civil Engineering
Devendra Singh	Civil Engineering
Kishan Singh	Civil Engineering
Rohit Verma	Civil Engineering
Aishna Agrawal	Computer Science and Engineering
Katpara Shruti Ashokkumar	Computer Science and Engineering
Sagar Bisen	Computer Science and Engineering
Preeti Chiluveru	Computer Science and Engineering
Athave Prasad Devidas	Computer Science and Engineering
Pusalkar Aditya Dilip	Computer Science and Engineering
Chris Francis	Computer Science and Engineering
Dishank Goel	Computer Science and Engineering
Pranshu Kumar Gond	Computer Science and Engineering
Raghav Goyal	Computer Science and Engineering
Guntreddi Harshavardhan	Computer Science and Engineering
Mihir Vikram Jain	Computer Science and Engineering
Amey Amol Kulkarni	Computer Science and Engineering
Abhinav Kumar	Computer Science and Engineering
Anupam Kumar	Computer Science and Engineering
Harshit Kumar	Computer Science and Engineering
Amireddy Manisha	Computer Science and Engineering
Vivek Modi	Computer Science and Engineering
Pushkar Mujumdar	Computer Science and Engineering
Nishikant Parmar	Computer Science and Engineering
Arpit Venilal Patel	Computer Science and Engineering
Harsh Mahendra Bhai Patel	Computer Science and Engineering
Ajinkya Shirish Pawar	Computer Science and Engineering
Kalyan Reddy S	Computer Science and Engineering
Shivam Sahni	Computer Science and Engineering
Joshi Devvrat Shailesh	Computer Science and Engineering
Mohammad Shahid Shareef	Computer Science and Engineering
Kushagra Sharma	Computer Science and Engineering
Abhinav Singh	Computer Science and Engineering
Lovepreet Singh	Computer Science and Engineering
Siddharth Soni	Computer Science and Engineering
Gannavarapu Dhanya Sree	Computer Science and Engineering
Janvi Vinodkumar Thakkar	Computer Science and Engineering
Priyam Tongia	Computer Science and Engineering
Aditya Tripathi	Computer Science and Engineering
Sachin Yadav	Computer Science and Engineering
Prajapati Pradiptbhai Dahyabhai	Electrical Engineering
Unnat Nikhil Dave	Electrical Engineering
Shruti Prakash Gupta	Electrical Engineering
Jani Dhyye Hareshbhai	Electrical Engineering
Shastri Hetvi Hiren	Electrical Engineering
Varun Jain	Electrical Engineering

NAME OF THE STUDENT	DISCIPLINE
Yash Gautam Kamble	Electrical Engineering
Arpit Kaushal	Electrical Engineering
Jitender Kumar	Electrical Engineering
Permender Kumar	Electrical Engineering
Reddy Venkata Neeraj Kumar	Electrical Engineering
Vadhvana Sanket Jagdish Kumar	Electrical Engineering
Satyam Kumar	Electrical Engineering
Laxman	Electrical Engineering
Dhruvi Prakash Lodhavia	Electrical Engineering
Abhinav Meena	Electrical Engineering
Harish Meghwal	Electrical Engineering
Kumar Ayush Paramhans	Electrical Engineering
Mody Shril Pares	Electrical Engineering
Dhruvin Pankajkumar Patel	Electrical Engineering
Kuntal Sunilkumar Patel	Electrical Engineering
Rishi Patidar	Electrical Engineering
Agarwal Prankush	Electrical Engineering
Palak Purohit	Electrical Engineering
Jayesh Dnyaneshwar Salunkhe	Electrical Engineering
Kabra Arpita Sanjay	Electrical Engineering
Jessica Satyarthi	Electrical Engineering
Jay Rahulbhai Shah	Electrical Engineering
Viraj Kalpesh Shah	Electrical Engineering
Vrutik Chandresh Shah	Electrical Engineering
Roopak Sharma	Electrical Engineering
Shivanshu Sharma	Electrical Engineering
Bhavesh Kumar Solanki	Electrical Engineering
Gudivada Venkata Prudvi Tej	Electrical Engineering
Udit	Electrical Engineering
Vagisha	Electrical Engineering
Praveen Venkatesh	Electrical Engineering
M J Sujit Akash	Materials Science and Engineering
Patel Smit Bhupeshbhai	Materials Science and Engineering
Dhruv Mahesh Bukinkere	Materials Science and Engineering
Krish Gupta	Materials Science and Engineering
Himanshu	Materials Science and Engineering
Aastha Jivrajani	Materials Science and Engineering
Poreddy Venkat Karthik	Materials Science and Engineering
Suryansh Kumar	Materials Science and Engineering
Dhruv Menon	Materials Science and Engineering
R Mithun	Materials Science and Engineering
Ramteke Shlok Prashant	Materials Science and Engineering
Janhavi Premi	Materials Science and Engineering
Amish Raj	Materials Science and Engineering
Borase Nikhil Ravindrakumar	Materials Science and Engineering
Katike Pranay Deep Reddy	Materials Science and Engineering
Shashi Sarraf	Materials Science and Engineering
Dhananjay Singh	Materials Science and Engineering
Tanishque Zaware	Materials Science and Engineering
Bhasin Abhiraj	Mechanical Engineering
Kshitija Dinesh Anam	Mechanical Engineering
Kokadwar Vaishnavi Arun	Mechanical Engineering
Meshram Yash Arun	Mechanical Engineering
S Ganesh	Mechanical Engineering
Rahul Gupta	Mechanical Engineering
Tanmay Jain	Mechanical Engineering
Anusheel Kaula	Mechanical Engineering
Navneet Kaur	Mechanical Engineering
Jayesh Khanna	Mechanical Engineering
Patel Neel Kirankumar	Mechanical Engineering
Kailash Kumar	Mechanical Engineering
Vijendra Meena	Mechanical Engineering
Poojan Modi	Mechanical Engineering
Vakil Yatharth Niles	Mechanical Engineering
Shirodkar Rohan Ninad	Mechanical Engineering
Srujan Pandya	Mechanical Engineering
Deepesh Pankaj	Mechanical Engineering
Dev Patel	Mechanical Engineering
Pushan Pravin Patel	Mechanical Engineering
Pedamajji Rakeshnaidu	Mechanical Engineering
Jaydeep Gulab Ramnani	Mechanical Engineering
Murkute Nikhil Ramrao	Mechanical Engineering
Dalmia Gaurav Ravi	Mechanical Engineering
Rana Rwik	Mechanical Engineering
Pradeep Saini	Mechanical Engineering
Vaibhav Saini	Mechanical Engineering
Vibhute Prathamesh Sanjivkumar	Mechanical Engineering

NAME OF THE STUDENT	DISCIPLINE
Aarish Parag Shah	Mechanical Engineering
Viraj Mitul Shah	Mechanical Engineering
Shashi	Mechanical Engineering
Rachit Shrima	Mechanical Engineering
Maddela Siddarth	Mechanical Engineering
Kulkarni Shardul Sunil	Mechanical Engineering
Kakadiya Jaydeep Sureshbhai	Mechanical Engineering
Ritu Verma	Mechanical Engineering
Nikhil Yadav	Mechanical Engineering

## 2017 BATCH

Mohammad Aslam	Chemical Engineering
Ayushman Bahuguna	Chemical Engineering
Rahul Dhamania	Chemical Engineering
Samyak Jain	Chemical Engineering
Shantanu Sakti Jana	Chemical Engineering
Dev Ajay Kakkad	Chemical Engineering
Deependra Kumar	Chemical Engineering
Shubhi Maheshwari	Chemical Engineering
Akshat Mangal	Chemical Engineering
Manraj Meena	Chemical Engineering
Anand Hiren Merchant	Chemical Engineering
Satti Kartik Naik	Chemical Engineering
Pradumn Pandey	Chemical Engineering
Vinod Kumar Prajapat	Chemical Engineering
Solanki Soham Pratik	Chemical Engineering
Thool Harshal Rashtrapal	Chemical Engineering
Rachit Ray	Chemical Engineering
Rajkumar Sain	Chemical Engineering
Rajas Prasad Shah	Chemical Engineering
Arun Shakya	Chemical Engineering
Anurag Singh	Chemical Engineering
Priyansh Singh	Chemical Engineering
Gaurav Sonkule	Chemical Engineering
Parichay Thakore	Chemical Engineering
Parth Upadhayay	Chemical Engineering
Ankur Vaibhav	Chemical Engineering
Mudgal Vyom	Chemical Engineering
Sanjeet Kumar Yadav	Chemical Engineering
Akash Ajnare	Civil Engineering
Vishesh Roy Anand	Civil Engineering
Shubham Raviprakash Baheti	Civil Engineering
Anil Berwal	Civil Engineering
Pranjali Anil Borse	Civil Engineering
Utkarsh Sandeep Gangwal	Civil Engineering
Chintakayala Venu Gopal	Civil Engineering
Varanganti Hari Pratap Goutham	Civil Engineering
Shahzaib Khan	Civil Engineering
Gaurav Kumar	Civil Engineering
Jeetendra Kumar	Civil Engineering
Sumit Kumar	Civil Engineering
Pavan Kumar Meena	Civil Engineering
Deepak Meena	Civil Engineering
Akshay P Nambiar	Civil Engineering
Nishant	Civil Engineering
Sarang Patil	Civil Engineering
Rensi Pipalia	Civil Engineering
Utsav Prashant Racca	Civil Engineering
Shah Harsh Sarju	Civil Engineering
Pranjal Singh	Civil Engineering
Yashaswi Soni	Civil Engineering
Madhav Tiwari	Civil Engineering
Shaurya Agarawal	Computer Science and Engineering
Ayush Agarwal	Computer Science and Engineering
Mrinal Anand	Computer Science and Engineering
Dharavath Anitha	Computer Science and Engineering
Ankush Chauhan	Computer Science and Engineering
Atharva Pandurang Chewale	Computer Science and Engineering
Debarya Das	Computer Science and Engineering
Aditya Garg	Computer Science and Engineering
Kishen N Gowda	Computer Science and Engineering
Nidhin Harilal	Computer Science and Engineering
Anubhav Jain	Computer Science and Engineering
Kanishk Kalra	Computer Science and Engineering
Lakshay	Computer Science and Engineering
Chandan Maji	Computer Science and Engineering
M Mohit Mina	Computer Science and Engineering

NAME OF THE STUDENT	DISCIPLINE
Pittala Nikhil	Computer Science and Engineering
Vraj Patel	Computer Science and Engineering
Rohit Shantaram Patil	Computer Science and Engineering
Rohan Prashant Patil	Computer Science and Engineering
Dyavarashetty Peeyush	Computer Science and Engineering
Ram Bhagwan Prajapat	Computer Science and Engineering
Kakumani Prudhvi Raj	Computer Science and Engineering
Jain Harshil Rakesh	Computer Science and Engineering
Aglawe Anup Ravindra	Computer Science and Engineering
Shah Rushil	Computer Science and Engineering
Parimi Siva Krishna Sarma	Computer Science and Engineering
Shah Ujjaval Satishkumar	Computer Science and Engineering
Saumitra Sharma	Computer Science and Engineering
Chenna Kesava Tirunagari	Computer Science and Engineering
Abhishit Tiwari	Computer Science and Engineering
Kavita Vaishnav	Computer Science and Engineering
Patel Vandan	Computer Science and Engineering
Anshuman Yadav	Computer Science and Engineering
Vedanta Krishna Bhutani	Electrical Engineering
Akshay Biju	Electrical Engineering
Uttharapally Sai Chandra	Electrical Engineering
Pundru Chandrasahas	Electrical Engineering
Nayan Chaudhary	Electrical Engineering
Patel Ajjkumar Dahyalal	Electrical Engineering
Dehade Sankesh Deepak	Electrical Engineering
Ishita Goyal	Electrical Engineering
Tanmaey Gupta	Electrical Engineering
Patel Urvishkumar Jayrambhai	Electrical Engineering
Narni Vishnu Karthikeya	Electrical Engineering
Karri Revanth Ratna Kireeti	Electrical Engineering
Manoj Kumar Kumawat	Electrical Engineering
Rushikesh Vijay Kumthekar	Electrical Engineering
Ajay Meena	Electrical Engineering
Ashish Kumar Meena	Electrical Engineering
Pandipati Vamshi Nikhil	Electrical Engineering
Chauhan Jainish Nileshkumar	Electrical Engineering
Kaashik Ronak Nitin	Electrical Engineering
Shreya Pamecha	Electrical Engineering
Preet Gokulesh Patel	Electrical Engineering
Prakash R	Electrical Engineering
Pardeshi Shweta Rajesh	Electrical Engineering
Ravi Rathod	Electrical Engineering
Onteddu Rama Krishna Reddy	Electrical Engineering
Ram Udit Saadh	Electrical Engineering
Mohammed Aasim Shaikh	Electrical Engineering
Mithavkar Ojas Shashikant	Electrical Engineering
Jaspreet Singh	Electrical Engineering
Naman Kumar Singh	Electrical Engineering
Deepika Soni	Electrical Engineering
Jethva Utsav	Electrical Engineering
Ribhu Vajpeyi	Electrical Engineering
Mundada Yasham Amar	Materials Science and Engineering
Kaushik Kumar Bhaiya	Materials Science and Engineering
B Dhyanes	Materials Science and Engineering
Varun Dolia	Materials Science and Engineering
Ujjwal Gautam	Materials Science and Engineering
Harendra Singh Gurjar	Materials Science and Engineering
Khot Krutarth Hemant	Materials Science and Engineering
Dhaiwat Kabaria	Materials Science and Engineering
Gholap Atharv Mahendra	Materials Science and Engineering
Sagar Singh Meena	Materials Science and Engineering
Pinniboina Muneeswar	Materials Science and Engineering
Banoth Vishnu Sai Naik	Materials Science and Engineering
Shivani Patley	Materials Science and Engineering
Mulastham Amitha Rani	Materials Science and Engineering
Mewada Rohan	Materials Science and Engineering
Shuchi Dharendra Sanandiya	Materials Science and Engineering
Karra Uma Naga Srikar	Materials Science and Engineering
Shah Dhruval Suresh	Materials Science and Engineering
Neena Tatu	Materials Science and Engineering
Surabhi Ashutosh Torne	Materials Science and Engineering
Anuj Yadav	Materials Science and Engineering
Abhinav	Mechanical Engineering
Karanam Avinash	Mechanical Engineering
Kakadiya Harsh Babulal	Mechanical Engineering
Sukkala Balaji	Mechanical Engineering
Sabbi Pavan Kumar Chakri	Mechanical Engineering

NAME OF THE STUDENT	DISCIPLINE
Tushar Choudhary	Mechanical Engineering
Dip Nilim Das	Mechanical Engineering
Shah Dhruvin	Mechanical Engineering
Yash Gaur	Mechanical Engineering
Vandit Goyal	Mechanical Engineering
Ayush Kumar Gupta	Mechanical Engineering
Parmar Hitarth	Mechanical Engineering
Shah Jainam	Mechanical Engineering
Tandale Akshay Jay	Mechanical Engineering
Ashish Kumar Jha	Mechanical Engineering
Vatsal Ketankumar Joshi	Mechanical Engineering
Sourabh Khatik	Mechanical Engineering
Mohamed Shamir T M	Mechanical Engineering
Deepak Kumar Meena	Mechanical Engineering
Ankush Mishra	Mechanical Engineering
Saurabh Kartik Muneshwar	Mechanical Engineering
Bhukya Hiram Naik	Mechanical Engineering
Dhake Yash Nilkanth	Mechanical Engineering
Shah Meet Parag	Mechanical Engineering
Shivang Pareek	Mechanical Engineering
Soni Anirudha Pradeepkumar	Mechanical Engineering
Vala Vedangraj Rajendrasinh	Mechanical Engineering
Yannawar Pranav Sameer	Mechanical Engineering
Shireesh Raghunath Shelke	Mechanical Engineering
Parth Shinde	Mechanical Engineering
Shreyas Dattatray Sonawane	Mechanical Engineering
Agrawal Parth Sunilkumar	Mechanical Engineering

## 2016 BATCH

Lakhan Agrawal	Chemical Engineering
Patel Milanbhai Bhagubhai	Chemical Engineering
Abhishek Dubey	Chemical Engineering
Rohan Gupta	Chemical Engineering
Ritik Jain	Chemical Engineering
Sparsh Jain	Chemical Engineering
Khili Khamesra	Chemical Engineering
Yash Makwana	Chemical Engineering
Spand Bharat Mehta	Chemical Engineering
Buditi Prudhvi	Chemical Engineering
Gameti Nirav Rajeshbhai	Chemical Engineering
Singh Shivam Rajkesar	Chemical Engineering
Raman	Chemical Engineering
Sourabh Saini	Chemical Engineering
Bhumika Sandilya	Chemical Engineering
Shubham Sankhla	Chemical Engineering
Rahul Shakya	Chemical Engineering
Kamle Mayank Shrikant	Chemical Engineering
Manjot Singh	Chemical Engineering
Varsha Singh	Chemical Engineering
Amar Baroliya	Civil Engineering
Ajay Bhardwaj	Civil Engineering
Hansraj Bijarnia	Civil Engineering
Piyush Chandra	Civil Engineering
Kaushal Chhimpia	Civil Engineering
Mohit Gadhwal	Civil Engineering
Rishabh Jain	Civil Engineering
Sahil Jain	Civil Engineering
Muhammed Sinan R K	Civil Engineering
Kishan Khichi	Civil Engineering
Chinmay Girish Kulkarni	Civil Engineering
Krishan Kumar	Civil Engineering
Mayank Kumar	Civil Engineering
Mukesh Kumar	Civil Engineering
Danish Mansoor	Civil Engineering
Anubhav Meena	Civil Engineering
Utkarsh Meena	Civil Engineering
Akshay Mittal	Civil Engineering
Jitesh Mittal	Civil Engineering
Pranav Peepre	Civil Engineering
Kokkonda Prashanth	Civil Engineering
Akhil Anil Rajput	Civil Engineering
Animesh Rastogi	Civil Engineering
Wani Tejas Sakahari	Civil Engineering
Ayush Singh	Civil Engineering
Ishank Singh	Civil Engineering
Chekkala Sai Srishal	Civil Engineering
Arora Sriya	Civil Engineering



NAME OF THE STUDENT	DISCIPLINE
Rendla Aditya	Computer Science and Engineering
Apoorv Agnihotri	Computer Science and Engineering
Heer Ambavi	Computer Science and Engineering
Shivji Bhagat	Computer Science and Engineering
Rahul Challa	Computer Science and Engineering
Gohil Varun Chandrashekhar	Computer Science and Engineering
Shivansh Choudhary	Computer Science and Engineering
Monika Chouhan	Computer Science and Engineering
Gajapure Kshitij Dewanand	Computer Science and Engineering
Bikramjot Singh Dhindsa	Computer Science and Engineering
Rayan Gaat	Computer Science and Engineering
Ayush Garg	Computer Science and Engineering
Ayush Garg	Computer Science and Engineering
Anmol Gautam	Computer Science and Engineering
Atishay Jain	Computer Science and Engineering
Naman Jain	Computer Science and Engineering
Pranjali Jain	Computer Science and Engineering
Sammed Shantinath Kagi	Computer Science and Engineering
Pratik Kayal	Computer Science and Engineering
Pachpande Soham Kishor	Computer Science and Engineering
S Deepak Narayanan	Computer Science and Engineering
Debanuj Nayak	Computer Science and Engineering
Nitiksha	Computer Science and Engineering
Meet Panchal	Computer Science and Engineering
Pathlavath Prashanth	Computer Science and Engineering
Kukunuri Sai Venkata Ratna Rithwik	Computer Science and Engineering
Dutta Ritik	Computer Science and Engineering
P Jayakrishna Sahit	Computer Science and Engineering
S Vinu Sankar	Computer Science and Engineering
Mridul Sharma	Computer Science and Engineering
Rohit Sharma	Computer Science and Engineering
Davinder Singh	Computer Science and Engineering
Shreyas Singh	Computer Science and Engineering
Parmar Monarch Upendrabhai	Computer Science and Engineering
Kunal Verma	Computer Science and Engineering
Smeet Vora	Computer Science and Engineering
Kratika Bhagtani	Electrical Engineering
Vasu Bhalothia	Electrical Engineering
Chavali Bharath Chandra	Electrical Engineering
Pranjal Darda	Electrical Engineering
Jatin Ashish Dholakia	Electrical Engineering
Banoth Dinesh	Electrical Engineering
Girish Chandar G	Electrical Engineering
Pratik Puri Goswami	Electrical Engineering
Abhinav Narayan Harish	Electrical Engineering
Shubham Ashok Kalgunde	Electrical Engineering
Penumaka Gopi Kishore	Electrical Engineering
Siddharth Krishnan	Electrical Engineering
K S Santhosh Kumar	Electrical Engineering
Sai Praneeth Maddi	Electrical Engineering
Balani Mohit Manoj	Electrical Engineering
Ramesh Meena	Electrical Engineering
Suraj Kumar Meena	Electrical Engineering
Jai Parmar	Electrical Engineering
Himanshu Rai	Electrical Engineering
Gupta Sagar Rajeev	Electrical Engineering
Bedmutha Manas Satish	Electrical Engineering
Priolkar Neha Satyendra	Electrical Engineering
Anshul Shivhare	Electrical Engineering
Shubhranshu Singh	Electrical Engineering
Chakka Snehith	Electrical Engineering
Deshpande Ajit Umesh	Electrical Engineering
Pankaj Vatwani	Electrical Engineering
Rajat Kumar Verma	Electrical Engineering
Sumit Walia	Electrical Engineering
Amit Kumar Singh Yadav	Electrical Engineering
Rahul Yadav	Electrical Engineering
Tanisha Aggrawal	Materials Science and Engineering
V V S Akhil	Materials Science and Engineering
Anushikha	Materials Science and Engineering
Utkarsh Balodi	Materials Science and Engineering
Bidyan Basumatary	Materials Science and Engineering
Ratul Chakraborty	Materials Science and Engineering
Dinesh Raj D	Materials Science and Engineering
Vikas Dudi	Materials Science and Engineering
Shubham Gond	Materials Science and Engineering
C R Greeshma	Materials Science and Engineering

NAME OF THE STUDENT	DISCIPLINE
Godina Ganga Hrishikesh	Materials Science and Engineering
Ingle Varad Jitendrakumar	Materials Science and Engineering
Rampratap Kumar	Materials Science and Engineering
Anjali Kumari	Materials Science and Engineering
Neha Meena	Materials Science and Engineering
Kunwar Shivam Pratap	Materials Science and Engineering
Rahul Rajeev	Materials Science and Engineering
Ayan Rakshit	Materials Science and Engineering
Dharmendra Sablaniya	Materials Science and Engineering
Pankaj Kumar Saini	Materials Science and Engineering
Joshi Kavan Sanjaybhai	Materials Science and Engineering
Shreyas Sreeram	Materials Science and Engineering
Sriram Sriharsha	Materials Science and Engineering
Bukya Vinay	Materials Science and Engineering
Manish Alriya	Mechanical Engineering
Putsala Anirudh	Mechanical Engineering
Akshat Bansal	Mechanical Engineering
Rajat Biluniya	Mechanical Engineering
Manvendra Singh Chauhan	Mechanical Engineering
Tare Aditya Dayanand	Mechanical Engineering
Kadam Omkar Devidas	Mechanical Engineering
Vedant Rajendra Gote	Mechanical Engineering
Ukey Vishal Hemraj	Mechanical Engineering
Mudit Jangid	Mechanical Engineering
Kathroth Pavan Kalyan	Mechanical Engineering
Karthik Subramanya Karvaje	Mechanical Engineering
Upendra Kumar	Mechanical Engineering
Mukul Lawas	Mechanical Engineering
Dashpute Chinmay Laxmikant	Mechanical Engineering
Tandale Atharva Madhukar	Mechanical Engineering
Rathi Aditya Manish	Mechanical Engineering
Yogesh Meena	Mechanical Engineering
Bharg Mehta	Mechanical Engineering
Kaushal R Modi	Mechanical Engineering
Ashar Akhil Parag	Mechanical Engineering
Kevin Patel	Mechanical Engineering
Suyash Patidar	Mechanical Engineering
Adithya R	Mechanical Engineering
G Ramanan	Mechanical Engineering
Rahil Sanwla	Mechanical Engineering
Kshitij Sendre	Mechanical Engineering
Sakhalikar Pushpakraj Shyamappa	Mechanical Engineering
Polampalli Bala Srimannarayana	Mechanical Engineering
Surve Sushrut Sudarshan	Mechanical Engineering

## 2015 BATCH

Avinash Joy Bara	Chemical Engineering
Rajeev Kumar Mahto	Chemical Engineering
More Rishikesh Babu	Electrical Engineering
Ravi Jangir	Electrical Engineering
Gaurav Singh Khatana	Electrical Engineering
Pankaj Kumar	Electrical Engineering
Sujeet Singh Mathur	Materials Science and Engineering
Akshat Sandhaliya	Materials Science and Engineering
Jayshankar Sharma	Materials Science and Engineering
Kuldeep Singh	Materials Science and Engineering
Himani Verma	Materials Science and Engineering
Shrinidhi Dilip Bhide	Mechanical Engineering
Amit Jangir	Mechanical Engineering
Anilraj Meena	Mechanical Engineering
Rohit Kumar Singh	Mechanical Engineering
Anupam Swarnkar	Mechanical Engineering

## 2014 BATCH

Navdeep Prakash	Chemical Engineering
Varade Amit Bhaskar	Electrical Engineering
Antima Meena	Materials Science and Engineering
Dabhi Parth Lalitkumar	Mechanical Engineering
Vaibhav S Pal	Mechanical Engineering
Ninama Rishilkumar Ramjibhai	Mechanical Engineering
Panna Lal Saini	Mechanical Engineering

## 2013 BATCH

Praveen Pandey	Civil Engineering
----------------	-------------------





**INDIAN INSTITUTE OF TECHNOLOGY GANDHINAGAR**  
**PALAJ, GANDHINAGAR - 382355**

**[WWW.IITGN.AC.IN](http://WWW.IITGN.AC.IN)**