# Connections

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Connections is the quarterly newsletter for friends of IIT Gandhinagar

# **INSTITUTE ACTIVITIES**

#### **UNION HRD MINISTER AT IITGN**

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



# **INDUSTRY CONCLAVE**

The second edition of Industry Conclave, 'Connections 2019: Creating Opportunity to Stimulate Industry-Academia Partnerships', was organised on November 9, 2019. **Mr Kris Gopalakrishnan** (co-founder Infosys), Chairman of the Advisory Council of the Research Park and the IIEC chaired the program. More than 70 participants from over 50 different industries from across the country participated in the program. A Startup Pitching and Networking program was also organised as a part of the event.

# 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 4<sup>th</sup> 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.



# SUPPORT FOR THE INSTITUTE

# **RAMA RAO CHAIR AT IITGN**



Shri N R Narayana Murthy, co-founder of Infosys has established 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.

# **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.



**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.

# **OUTREACH**

# VISITOR'S CONFERENCE AT RASHTRAPATI BHAVAN

**Prof Sudhir K Jain**, Director, IITGN, participated in the Visitor's Conference with IITs, NITs and IIEST organised by the Ministry of Human Resource Development at Rashtrapati Bhavan, New Delhi, on November 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**, Director, IITGN, 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 November 25-26, 2019.



UISHED VISITORS

#### VISIT BY CANADIAN DELEGATION

A Canadian delegation led by **Mr Fred Eisenberger**, Mayor of the city of Hamilton (Ontario, Canada), visited the Institute on November 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.

# **FACULTY NEWS**

#### PATENTS

- Fluorophore Based Probes for Cellular Imaging: Inventors include Sriram Kanvah Gundimeda, Tarushyam Mukherjee, and Virupakshi Soppina.
- A System and a Process for Wastewater Purification: Inventors include **Chinmay Ghoroi, Afsar Ali**, and **Arnab Dutta**.

Process for the Preparation of N-substituted Phenothiazine Derivatives: Inventors include Sivapriya Kirubakaran, Vijay Thiruvenkatam, Javeena Hussain, Althaf Shaik, and Siddhant Bhoir.

# **AWARDS AND RECOGNITIONS**

**Prof Pranab Mohapatra**, Professor, Civil Engineering, IITGN, has been awarded the Visiting International Fellowship of The Environmental and Water Resources Institute

(EWRI), American Society of Civil Engineers, for the year 2020.

# SPONSORED AND CONSULTANCY PROJECTS

To find the list of sponsored and consultancy projects at IITGN, please go to this link: https:// iitgn.ac.in/newsletter/projects/ q4\_2019 or scan the QR code.



# **NEW FACULTY**

The following faculty members joined the institute during this quarter:

Name	Designation	Discipline	PhD/ Last Degree	Date of joining
Dr K Chelvakumar	Visiting Professor	Mechanical Engineering	California Institute of Technology, USA	16-10-2019
Ms Premlatha Chelvakumar	Visiting Professor	Biological Engineering	The University of Peradeniya, Sri Lanka	16-10-2019
Dr V D Sharma	Visiting Professor	Mathematics	Banaras Hindu University	21-10-2019
Dr Arpan Bhattacharyya	Assistant Professor	Physics	Indian Institute of Science	21-10-2019
Dr Sriharitha Rowthu	Assistant Professor	Materials Science & Engineering	École Polytechnique fédérale de Lausanne, Switzerland	06-12-2019
Dr Vivek Venkitaraman Narayan	Assistant Professor	Humanities	Stanford University, USA	16-12-2019

#### **SCHOLAR-IN-RESIDENCE**

Name	Discipline	Affiliation	Date of joining	
Dr Rishi Gupta	Civil Engineering	University of Victoria, Canada	16-10-2019	
Ms Aditi Gupta	Library Science	University of Victoria, Canada	16-10-2019	
Dr Mohammed El Ganaoui	Mechanical Engineering	Universite de Lorraine, France	16-12-2019	

# **ACTIVITIES AT IITGN**

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

- Fall School in Language: A Fall School in Language was conducted at the Institute in collaboration with the Delhi University and Anthropological Survey of India from October 7-11, 2019. A total of 29 participants from all over the country attended the program. The event was coordinated by Dr Chakraverti Mahajan, Delhi University, and Prof Nishaant Choksi, IITGN.
- Winter School: The HSS discipline of IITGN organised a week-long 'Winter School on Social Science Research Methods for Conservation Biologists and Practitioners' from October 9-15, 2019. Nature conservationists from across the country attended the program. The event was coordinated by Prof Ambika Aivadurai.
- 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 October 17, 2019. More than 75 leading academicians, industry representatives, and research administrators from the state and South Asia region attended the event.
- Sparc Workshop on River Styles: IITGN, in collaboration with University of Auckland and Macquarie University, Sydney organised a workshop on 'River Styles (RS) Framework and Fluvial Geomorphology' from October 30 to November 2, 2019, under MHRD-SPARC initiative. Eminent geomorphologists Prof Gary Brierley and Prof Kirstie Fryirs were the resource persons for this programme. 30 participants from 10 Indian states participated in the workshop. The programme was coordinated by Prof Vikrant Jain.
- Lecture on Ramanujan: IITGN hosted a public lecture on Srinivasa Ramanujan on November 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 December 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



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 eighth edition of the programme was conducted from December 16 - 22, 2019. Dr Rajmohan Gandhi delivered the inaugural lecture. The event was coordinated by Prof Mona Mehta and Prof Jaison Manjaly.

conducted by the Royal Society of Chemistry (RSC), India and Salters' Institute, UK in association with IITGN, between December 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 December 22-23, 2019, to celebrate the 132<sup>nd</sup> 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.
- Workshop on Nowaam: IITGN organised a workshop on Nonlinear Oscillations, Waves and Advanced Asymptotic Methods from November 11-13, 2019. Prof S Narayanan delivered a guest lecture. Other lectures were delivered by Prof Oleg Gendelman, Prof Yuli Starosvetsky, and Dr K R Jayaprakash. About 20 participants from universities across India attended the event. The workshop was coordinated by Prof K R Javaprakash.
- Visits By Educational Institutes: IITGN hosted several student groups from institutions across India, including Gateway College of Architecture and Design, Sonepat; Parul University, Vadodara; Anant School of Architecture, Ahmedabad; Nobel Foundation. Maharashtra: Shree Sarvajanik Kelavani Mandal, Mehsana; Gujarat Power Engineering and Research Institute (GPERI), Mehsana.
- Workshop On Energy Resources & Management: A workshop on 'Distributed Energy Resources and Energy Management' was conducted at IITGN during December 3-4, 2019. About 30 MTech and PhD students attended the workshop. The workshop was coordinated by Prof Naran Pindoriya.

Workshop On Ultrasound Contrast Agents:

WORKSHOPS

- Effective use of SCOPUS Citation Database & MENDELEY - Reference Management Software by Dr Shubhra Dutta, PhD Customer Consultant (Core Content)- South Asia A&G Team, Elsevier Publisher of Chicago Field Museum, October 17, 2019.
- Scientific Writing for Journals by Dr Managing your references using Zotero-

Swati Meherishi, Executive Editor-Applied Science and Engineering, Springer Nature Publishing, October 23, 2019.

- Using Turnitin for Similarity (Plagiarism) Checking of Documents by Mr Varun Piplani, Senior & Expert Trainer, TurnitinIndia Educational. Pvt Ltd, November 6, 2019.

a Reference Management Software by Mrs Aditi Gupta. Engineering & Science Librarian from the University of Victoria Libraries in British Columbia, Canada & IITGN Library team, November 22, 2019.

#### SHORT COURSES

Differential Geometry for Engineers by Prof Ravi N Banavar, Guest Professor, IITGN, October 22-26, 2019.

IITGN hosted a two-day workshop on 'Ultrasound Contrast Agents: Application of Gas-filled Microbubbles in Biomedical Engineering' on December 14-15, 2019. About 33 participants attended the workshop. The workshop was organised & instructed by Prof Himanshu Shekhar, Prof Karla Mercado-Shekhar, and Prof Sameer Dalvi.

#### **IDE 2.0**

With the commitment to develop a culture of innovation entrepreneurial and spirit among students, IIT Gandhinagar Innovation and Entrepreneurship Center (IIEC) and Entrepreneurship Initiative of IITGN (EII) conducted iDE 2.0. 27 different teams came up with their innovative ideas and presented it to a panel who recommended action plans to help refine their ideas.

# LAUNCH OF ALUMNI **RESIDENCY PROGRAM**

IITGN has launched Alumni Residency Program 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.

#### WINTER INSTITUTE

IITGN and the University of Saskatchewan (USask) jointly hosted a 'Winter Institute in Digital Humanities' (WIDH) at IITGN during December 8-22, 2019. The international workshop was designed to initiate an interdisciplinary dialogue on digital studies. 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.

> · Introduction and some applications of AdS/CFT by Prof Arpan Bhattacharyya, Assistant Professor, Physics, IITGN, November 7, 9, 11, 13, & 15, 2019.

# LECTURES

Follow this link events.iitgn. ac.in or scan the QR code to see the lectures held at IITGN.



# STUDENT AND STAFF ACTIVITIES

# AWARDS AND RECOGNITIONS

- 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 2<sup>nd</sup> year MASC student, 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), 6<sup>th</sup> 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 November 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 December 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 December 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.

# **AMALTHEA 2019**

The decennial edition of Amalthea, the annual technical summit of IITGN was held on October 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.

# **HOMECOMING 2019**

Homecoming - an annual alumni meet of the Institute was held on December 21-22, 2019. IITGN alumni from all over the country and overseas came back to their alma mater. Several interesting activities were a part of the two-day event. **Prof Jaison Manjaly** coordinated the event.



# **INTER-IIT TECH MEET**

IITGN contingent had a great participation at the eighth Inter-IIT Tech Meet held at IIT Roorkee from December 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 fourth Inter-IIT Cultural Meet held at IIT Bombay. It won in various competitions including; Online Graphic Design (1<sup>st</sup>), All Over Fashion Genre (2<sup>nd</sup>), Online Modelling (3<sup>rd</sup>), Fashion Show (3<sup>rd</sup>), Monologue (3<sup>rd</sup>), and Design Marathon (Rebranding) (3<sup>rd</sup>).

#### WINTER CARNATIONS

IITGN celebrated the 6<sup>th</sup> edition Winter Carnations on November 16, 2019 with a theme of 'Through the Looking Glass'. It had lots of lip-smacking food dishes, exciting games, enthralling DJ music, and an open-mic programme.

#### **OBT 3.0**

The Staff Development Cell (SDC) of the Institute organised 'Leaps and Bounds' Outbound Training (OBT) 3.0 on December 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.

# **ROBOT SUMO WRESTLING**

The second edition of 'Robot Sumo Wrestling' was held at IITGN on December 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.

**SPORTS NEWS** 

#### **DISHA CUP**

IITGN organised the fifth edition of Disha Cup, the annual cricket tournament for the Institute's outsourced manpower, from November 26 to December 01, 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.

# **INTER-IIT SPORTS MEET**

A total of 112 students from IITGN participated in the 54<sup>th</sup> Inter-IIT Sports Meet jointly held at IIT Kharagpur & IIT Bhubaneswar from December 14-22, 2019. IITGN left a very good mark in the athletics section by winning in

athletics (W) 100m - 4<sup>th</sup> position, athletics (W) 200m - 5<sup>th</sup> position, athletics (W) 400m - 6<sup>th</sup> position, athletics (M) 400m - 4<sup>th</sup> position, athletics (M) 200m - 9<sup>th</sup> position. In chess tournament, IITGN secured 8<sup>th</sup> position.

# **INTER-IIT STAFF SPORTS MEET**

IITGN staff and faculty members participated in the 26<sup>th</sup> Inter-IIT Staff Sports Meet held at IIT Kharagpur. IITGN secured bronze medals in cricket and women's shot put.

