

Connections

IIT Gandhinagar



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Connections is the quarterly newsletter for friends of IIT Gandhinagar

Institute Activities



6TH CONVOCATION CEREMONY

IIT Gandhinagar held its sixth convocation on August 5, 2017 in which 195 students were awarded degrees: 124 BTech, 47 MSc, 5 MA, 4 PGDIIT and 14 PhD. **Mr Adil Zainulbhai**, Chairman, Quality Council of India was the Chief Guest at the event. The Institute awarded medals and awards to recognize achievements in academics, innovation, social services, research, sports, leadership, arts, and culture. **Rishab Anand** was awarded the President's Gold Medal for BTech, **Kamal Tiwari** was awarded the President's Gold Medal for MTech, and **Sonali Abhay Parekh** received the President's Gold Medal for MSc and MA batches. The Director's Gold Medal for BTech went to **Rishabh Jain** for his outstanding academic performance.



FOUNDATION PROGRAMME

From sports to treasure hunt, IITGN used an array of innovative methods to groom its incoming batch of undergraduate students during the five-week Foundation Programme (July 24 to Aug 27, 2017). The activities included sessions on story-telling, photography, sketching, music, painting, making comic books, yoga, sports, heritage walk, theatre activities, street cleaning and tree-planting. Talks on leadership, gender sensitivity, ethics and value education were also organized to encourage the students to open up their minds. The programme concluded with Eureka, a cultural evening organized by freshers' where they showcased their talent and potential to the rest of the IITGN community with performances of dance, drama, music, poetry recitation, and other cultural activities. The programme was coordinated by **Prof Krishna Kanti Dey**, **Prof Kaustubh Rane**, **Prof Manas Paliwal**, **Prof Manu Awasthi** and **Ms Poonam Mutha**.

Support for the Institute

PROF K V VENKATESHA MURTHY SCHOLARSHIP

Mrs Usha Murthy has set up a scholarship of Rs 50,000 per year for BTech students of Electrical Engineering in honour of her late husband **Prof K V V Murthy**. Prof Murthy was one of the pioneer faculty members of IIT Gandhinagar, who joined the newly established institute on December 29, 2009. He was a passionate teacher with an infectious enthusiasm for the subjects that he taught.



AMALTHEA SCHOLARSHIPS

The **Amalthea Scholarships** of Rs 50,000 per year have been set up utilizing the savings of annual technical event Amalthea organized by IITGN students. The scholarship has been awarded initially to one undergraduate student starting in 2016-17. The number of scholarships shall increase by one every year till it reaches to four scholarships by the year 2019-20.

CLASS-OF-2015 SCHOLARSHIPS

The **Class-of-2015 alumni** have set up undergraduate scholarships of Rs 20,000 per year. This scholarship will be awarded initially to one undergraduate student starting in 2017-18. The number of scholarships shall increase by one every year till it reaches to four scholarships by the year 2020-21.

CLASS-OF-2016 SCHOLARSHIPS

The **Class-of-2016 alumni** have set up undergraduate scholarships of Rs 20,000 per year. This scholarship has been awarded initially to one undergraduate student starting in 2016-17. The number of scholarships shall increase by one every year till it reaches to four scholarships by the year 2019-20.

PARTNERSHIP WITH JAIST

Dr Tetsuo Asano, President, Japan Advanced Institute of Science and Technology (JAIST) visited the Institute and signed an agreement on August 28, 2017 to offer a double Master's degree program. The select students of both institute will spend one year at the host institute and one year at the parental institute and concurrently earn two Master's degrees, one from IITGN, and the other from JAIST. Both the institutes have shared an extremely vibrant partnership since 2013.



Prof K Chelvakumar, visiting professor have been leading the efforts from IITGN.

RESEARCH PARK AT IITGN

Gujarat Urja Vikas Nigam Ltd (GUVNL) became the first company to start its R&D Unit at IITGN Research Park. The Research Park has been established at IITGN campus to boost industry academia-collaboration and innovation. The institute plans to build around 200,000 sq ft space for the research park in next couple of years. However, it has identified and earmarked around 26,000 sq ft of existing space to start the activities even before the construction of permanent buildings would start.

LT GEN VISHWAMBHAR SINGH VISIT

Lt Gen Vishwambhar Singh General Officer Commanding Maharashtra, Gujarat and Goa and UTs of Daman, Diu and Nagar Haveli visited IITGN on August 3, 2017, and delivered a talk on 'What makes a person successful'. He motivated students by his real-life stories and how to achieve success in life with teamwork, communication, and leadership.



MOU WITH UNIVERSITY OF JAFFNA

IITGN signed a memorandum of understanding (MoU) with the University of Jaffna, Sri Lanka on September 18, 2017 to promote research and academic exchanges. The Consul General of India at Jaffna, **Mr Natarajan** presided over the occasion. **Prof Amit Prashant**, Dean of Academic Affairs, and



Faculty News

PATENTS

A process for preparing boron based nano-accordions and nano-sheets: Inventors include **Prof Kabeer Jasuja** and **Mr Saroj Kumar Das**.

SPONSORED PROJECTS

- Protein disaggregation mechanisms through surface patterning sponsored by Science and Engineering Research Board (SERB), Principal Investigator: **Prof Mithun Radhakrishna**, Chemical Engineering.
- Tuning oscillatory chemical reactions using metal nanoparticle graphene composites sponsored by Science and Engineering Research Board (SERB), Principal Investigator: **Prof Pratyush Dayal**, Chemical Engineering.
- A Bayesian approach for CBC parameter reconstruction and tests of General Relativity

using Amplitude-Corrected Post-Newtonian waveforms sponsored by Science and Engineering Research Board (SERB), Principal Investigator: **Prof Anand Sengupta**, Physics.

- Design of main memory architectures for next generation datacenter servers sponsored by Science and Engineering Research Board (SERB), Principal Investigator: **Prof Manu Awasthi**, Computer Science Engineering.
- Evaluation of liquefaction earthquake hazard of Kutch Region sponsored by Ministry of Earth Science (MoES), Principal Investigator: **Prof Ajanta Sachan**, Civil Engineering.

CONSULTANCY PROJECTS

- Mapping of the Wild River Channels in Uttaranchal Region For World Wide Fund for Nature - India, Principal Investigator: **Prof Vikrant Jain**, Earth Sciences.
- Review of hydraulic design of bridge on

Panzara River For IL&FS Transportation Networks Ltd. Principal Investigator: **Prof Pranab Kumar Mohapatra**, Civil Engineering.

- Non-destructive subsurface investigation for utility mapping at AMC site For Ahmedabad Municipal Corporation, Principal Investigator: **Prof Amit Prashant**, Civil Engineering.
- GPR investigation of an identified location near Somnath and Prabhas Kshetra For Somnath Trust, Principal Investigator: **Prof Amit Prashant**, Civil Engineering.
- Heat Treatment Analysis of 6082 Extruded Aluminium Tubes For Siddhi Group, Principal Investigator: **Prof Amit Arora**, Materials Science and Engineering.
- Design verification of 25T and 2T gantry girder and hoist For Techno Industries, Principal Investigator: **Prof Gaurav Srivastava**, Civil Engineering.

NEW FACULTY

The following faculty members joined IITGN during this quarter:

Name	Designation	Discipline	PhD/Last degree	Date of joining
Bodo Bookhagen	Visiting Professor	Earth Sciences	Potsdam University, Germany	18.07.17
Manish Kumar	Assistant Professor	Earth Sciences	University of Tokyo, Japan	31.07.17
D C Rai	Visiting Professor	Civil Engineering	University of Michigan Ann Arbor, USA	31.07.17
Ramesh Gaonkar	Visiting Professor	Electrical Engineering	Syracuse University, New York	01.09.17

SCHOLAR-IN-RESIDENCE

Stefan Haves	Stefinity Entertainment and is Director of Cirque, Cinema, and Theatre	11.08.17
Shungo Kawanishi	Director, Institute of General Education, JAIST	21.08.17

Activities at IITGN



ENTREPRENEURSHIP DEVELOPMENT WORKSHOP

Entrepreneurship Development Workshop was organized by NEEV IITGN for women from Ramapir No Tekro from Sept 1-5, 2017 with a closely contested Business Plan Competition. The aim was to encourage women to generate their livelihood by starting a business of their own. The training was given by **Mr B R Venkatesh** and **Mr Amit Mere** from MBLTA, Mumbai.

ATM SCHOOL ON ADVANCED LINEAR ALGEBRA

An Advanced Training in Mathematics (ATM) school on Advanced Linear Algebra was organized at IITGN during July 10 - 22, 2017, in association with the National Center for Mathematics (NCM). This workshop covered topics in Linear Algebra which are beyond the scope of a standard MSc curriculum. The lectures were given by **Prof K N Raghavan**, Institute of Mathematical Sciences (IMSc Chennai), **Prof Indranath Sengupta** (IITGN), **Prof J K Verma** (IIT Bombay), **Prof Ananthanarayan Hariharan** (IIT Bombay), **Prof Ritumoni Sharma** (IIT Delhi) and **Prof Neeldhara Misra** (IIT GN).



ACM INDIA SUMMER SCHOOL ON GRAPH THEORY AND GRAPH ALGORITHM

The Discipline of Computer Science and Engineering at IITGN, in partnership with ACM India and support from DRDO, organized a three-week summer school on Graph Theory and Graph Algorithms during June 26 - July 15, 2017. The objective was to provide a forum for learning and discussing

several foundational aspects of structural graph theory, interleaved with perspectives from algorithmic graph theory. The school had over 50 participants from all over the country. The school was organized by **Prof Anirban Dasgupta** and **Prof Neeldhara Misra**.

INDIA PROGRAMMING COMMUNITY CAMP

The Discipline of Computer Science and Engineering at IITGN, in partnership with CodeChef and the Indian Programming Community (IPC) organized a programming camp on July 3 - 9, 2017. The program featured talks from some of the most accomplished names in the world of competitive programming. The camp was attended by 30 students from schools and colleges across India. The school was organized by **Prof Neeldhara Misra**.

OATH CEREMONY

IITGN took Sankalp on August 9, 2017 to free India from Poverty, Terrorism, Regionalism, Corruption and Non-hygiene by 2022. The evening was observed to mark the beginnings of the celebration of 70th year of Indian Independence and 75th year of the Quit India Movement.

STRIDES: EVENING ABOUT YOU

'Strides: An Evening about you' was organized on July 15, 2017 by the Staff Development Cell. The IITGN community participated in the event and showcased their talent with great enthusiasm. The cultural evening included dance, music, skit, and poetry by members of the staff and faculty and their families.



GIVING TO IIT GANDHINAGAR

IIT GANDHINAGAR RELIES ON THE SUSTAINED GENEROSITY OF ITS FRIENDS FOR SUPPORT OF MANY OF ITS EXCITING AND INNOVATION INITIATIVES. IITGN partners share our dream and vision of excellence. The institute has developed a reputation for thinking outside traditional disciplinary boundaries, experimenting with various facets of education and research and fostering a culture of free inquiry, innovation and excellence. We invite you to join us in this initial historic phase in the life of the Institute and its pursuit of developing into a world-class university.

For more information on giving to IIT Gandhinagar, Please see donate.iitgn.ac.in

Donations are 100% tax deductible in India. Donations to the IIT Gandhinagar Foundation in the US are 100% tax deductible in the USA

BOOK LAUNCH



SOLAR POWER IN INDIA: PAST, PRESENT AND 2022

A book on Solar Power in India: Past, Present and 2022 was launched by SRIP Solar study team at IITGN on July 14, 2017. **Prof Juzer M Vasi**, IIT Bombay was the distinguished visitor on this occasion. The book was released by **Prof Sudhir K Jain**, Director IITGN and was presented to Prof Vasi. Responding to the needs of the nation for solar energy and driven by the national solar mission target of 100 GW installed solar power by 2022, students worked on this project during summer break as their contribution to this national endeavor. A team of 8 Students including 2 students from KIIT Bhubaneswar and University of Jaffna (Srilanka) were guided by **Prof K Chelvakumar**.



NON-RELATIVISTIC QUANTUM MECHANICS

The launch of book by **Professor Ravinder R Puri** on Non- Relativistic Quantum Mechanics was held on August 8, 2017. The chief guests on this occasion were **Prof Dipan Ghosh**, Professor Emeritus, IIT Bombay and **Prof Sudhir K Jain**, Director, IITGN.

SHORT COURSES/WORKSHOPS

- Short course on space mission by **Prof Ashok Joshi**, IIT Powai, Mumbai, July 8-9, 2017.
- Workshop on electrochemistry school by **Mr Ritesh Vyas**, Metrohm India; **Dr Aditi Singhal**, Ahmadabad University; **Prof Arnab Dutta**, IITGN; **Prof Sudhanshu Sharma**, IITGN, July 24-25, 2017.
- Short course on Cells and Biomaterials by **Prof Ketul Popat**, Colorado State University, August 4-6, 2017.
- Short course on Introduction to Public Performance by **Mr Stefan Haves**, August 7-18, 2017.
- Short course on Point-cloud processing in Environmental Sciences by **Prof Bodo Bookhagen**, IITGN, August 16-19, 2017.
- Short course on Inversion-based Feedforward Control for Precision Tracking by **Prof Santosh Devasia**, University of Washington, Seattle, August 28-September 1, 2017.
- The GIAN course on Pattern Matching Algorithms at IITGN was held from August 28 - September 7, 2017 by **Prof Amihood Amir**, Department of Computer Science at Bar-Ilan University, Israel.
- Workshop on Bamboo Furniture by **Dr Supradip Das**, IIT Guwahati, September 15-17, 2017.
- The NVIDIA Deep Learning Institute (DLI) workshop by **Mr Bharat Sharma**, Senior Solutions Architect, Nvidia and **Mr Mukundhan Srinivasan**, Deep Learning Solutions Architect, NVIDIA, July 27, 2017.

LECTURES

- Introduction to String Theory by **Prof K P Yogendran**, IISER Tirupati, July 5, 2017.
- Colliding Black Holes: From Supercomputers to LIGO to the Universe by **Dr Karan Jani**, Center for Relativistic Astrophysics, Georgia Tech, July 7, 2017
- Mobilizing the Materiality of Heritage: India and the World by **Prof Lynn Meskell**, Director, Archaeology Center, Stanford University and **Prof Himanshu**

- Prabha Ray**, Jawaharlal Nehru University, August 8, 2017.
- SciFinder Database for Academic Research by **Mr Prathamesh Kulkarni**, Sci-Edge Information/Chemical Abstract Service, USA, August 4, 2017.
- Nano-satellites, India must give a try by **Dr S M Ahmed**, University of Hyderabad, August 17, 2017.
- Indian Startup Ecosystem: What's Good & What's Not by **Mr Balaji Viswanathan**, August 14, 2017.
- Publishing Your Research in Scholarly Journals by **Dr Sangeeta Mehta**, Elsevier Publisher (RELX India Pvt. Ltd), August 11, 2017.
- Mathematics Seminar series on Variants of equidistribution in arithmetic progressions by **Dr Akshaa Vatwani**, Postdoctoral Fellow, University of Waterloo, Canada, August 10, 2017.
- Instability of the Vacuum and Pair Production in de Sitter and Anti de Sitter Spacetimes by **Dr Prashant Samantray**, Visiting Faculty, ICTS-TIFR, Bangalore and IUCAA, Pune, August 18, 2017.
- Bringing innovations from lab to market by **Dr Magesh Nandagopal**, Scientist and Technology Commercialization Professional at NCL Innovations, Pune, August 16, 2017.
- Lost River in the NW Indo-Gangetic Plains: Testing River-Culture Hypothesis in the context of Harappan Civilization by **Prof Rajiv Sinha**, IIT Kanpur, August 15, 2017.
- Surface and Interfacial Properties of Organic Crystalline Solids by **Dr Jerry Heng**, Imperial College London, August 21, 2017.
- Democratic Reforms, Cooperatives and Social Entrepreneurship by **Prof Trilochan Sastry**, Dean, IIMB and ADR (Association of Democratic Reforms), August 21, 2017.
- Engineering and Learning Outside the Box by **Mr Bryce Johnson**, Tinkerer and Science Communicator, August 18, 2017.
- Population density, climate variables and poverty synergistically structure spatial risk in urban malaria

- in India by **Dr Mauricio Santos Vega**, University of Chicago, August 29, 2017
- Rerouting relations: Mobile anthropology within and beyond rural Gujarat by **Dr Sanderien Verstappen**, University of Amsterdam, August 24, 2017.
- Control of crystallographic texture and its consequences in materials by **Prof Satyam Suwas**, Indian Institute of Science, Bangalore August 30, 2017.
- Core of an Entrepreneur by **Mr Kiran Deshpande**, Founder and President, Mojo Networks September 8, 2017.
- Centre for Cognitive Science organised a series of talk title "Cogni Talks", speakers were **Prof Vishvajit Pandya**, DAIICT, **Dr Arvind Sahai**, IIM Ahmedabad, **Dr Nandini Chatterjee Singh**, NBRC & UNESCO-MGIEP, September 8, 2017
- Cascading Pedagogy: Developing Critical Consciousness & Transferable Skills Whilst Teaching Gender Studies by **Dr Jyothsna Latha Belliappa**, Srishti Institute of Art, Design and Technology Bangalore September 8, 2017.
- A Random Sampling of Random Research Problem by **Dr Dilip Krishnaswamy**, Senior Scientist, IBM Research, Bangalore, September 6, 2017.
- **Dr Kotona Motoyama** and **Dr Kotona Motoyama**, JAIST delivered talks on Diversity Studies and Globalization: Its Implication for Individuals, September 6 and September 7, 2017.
- Climate Change, Health, and the Biocultural Experience of Resilience in the Indus Age of South Asia by **Dr Gwen Robbins**, Appalachian State University, September 15, 2017.
- Application of Zadeh-Deshpande Formalism in Air Quality Assessment by **Prof Ashok Deshpande**, Founding Chair, Berkeley Initiative in Soft Computing, September 9, 2017.
- How much information can be extracted from data by **Prof Shankar Narasimhan**, IIT Madras, September 29, 2017.

Student and Staff Activities



UNDERGRADUATE RESEARCH CONCLAVE

The second Undergraduate Research Conclave (UGRC) was held on September 2, 2017. 20 undergraduate students from IITGN participated, who did their summer internships at prestigious institutions within or outside the country (including Caltech, Duke and ISRO). The Conclave was organized by **Prof Pedro Pombo**, **Prof Manish Kumar**, **Prof Manoj Gupta**, **Prof Vineet Vashista**. The Best Poster awards

were given to **Mr Chinmay Shirpurkar** and **Aparna Aketi**.

71ST INDEPENDENCE DAY CELEBRATION

IITGN celebrated the 71st Independence Day on August 15, 2017. The celebrations began with flag hoisting by the Director **Prof Sudhir K Jain** and followed by the national anthem. The Dean's List for students of all the Undergraduate batches who have excelled in academics were also announced during this cultural event.

SPIDER WALK

Spider walk and talk was organized at IITGN campus on September 16, 2017. **Mr S Sivakumar**, Park Manager, Sundarvan and

Mr N Ramjee, Centre for Environment Education, Ahmedabad were the resource persons. The event was organized by **Prof Ambika Aiyadurai**, IITGN.



HINDI DIWAS

IITGN celebrated Hindi Diwas on September 14, 2017. The programme included poem recitations, riddles, and drama by the students. Community members enthusiastically participated in this occasion.

Sports News

4TH INTRA MURA

Apart from mental skills, one often needs to develop their physical attributes. Keeping this in mind, intramural activities were

organised. These have been an integral part in exploring hidden talent and skills of freshers while simultaneously making them healthy. The opening ceremony included various

exercises which enhanced discipline as well as coordination of the students. The activities were Mime act, Human Pyramid, Tribal Dance and Aerobics and Zumba dance.