![IIIT-B logo — International Institute of Information Technology Bangalore]

**Newsletter**
July 2018

# From the Director's Desk

The International Congress of Mathematicians (ICM) 2018 was held in Rio de Janeiro, Brazil, during August 1-9. While on August 1st the much-awaited announcement of the Fields Medal was made, July 31st was an important day when the first ever World Meeting for Women in Mathematics, (WM)², was held which discussed research and gender issues in Mathematics.

On the day, the Organizing Committee of (WM)² had prepared a special tribute to Maryam Mirzakhani (1977-2017), the first woman to win the medal. The new Field Medal winners are Peter Scholze, 30, of the University of Bonn, Caucher Birkar, 40, of the University of Cambridge in England; Alessio Figalli, 34, of the Swiss Federal Institute of Technology in Zurich; and Akshay Venkatesh, 36, of the Institute for Advanced Study in Princeton and Stanford University in California. 'The poet of computation' and Nevanlinna Prize winner Constantinos Daskalakis talked

about deep learning and machine learning at the ICM 2018, a topic relevant to IT.

In our campus, we spent early July, celebrating our 18th Convocation, and slowly ushering in new batches of students throughout the month. This Convocation has been a special occasion for IIIT Bangalore as its largest batch till date, comprising 280 students graduated from its various post-graduate programmes. The campus had been abuzz with activities, preparing for starting the Term I innings on August 1st. You will see July 2018 in a capsule in this edition.

**HAPPY READING!**

## Achievements

**Our Alum Nitin Tailor is being honored by Youth Contributors Award** for his contribution for bringing positive change in the society on 8th July and **Gujarat Entrepreneur Award** for his valuable contribution to the Gujarat Entrepreneurship Ecosystem on 10 days Sayaji StartupSummit at M S University Vadodara. He has made IIIT Bangalore proud.
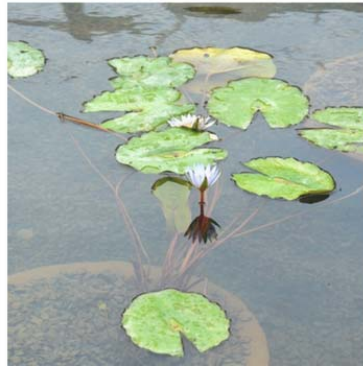


## Campus News


Events

The Fairwork Foundation, in collaboration with the Center for IT and Public Policy

(CITAPP) organized a **workshop on online platform labour** on July 5 at IIIT Bangalore. The workshop was designed as a multi-stakeholder meeting to gauge what might be considered 'fair' online work in an Indian context, against the backdrop of a growing number of platform workers (7 million across the worlda. The workshop was convened to discuss and deliberate on the nine principles of fairness in relation to platform work identified by the Fairwork Foundation on the basis of consultation and research in other countries. The core question was how the nine general principles could be contextualized and operationalized in the Indian context, where 24% of the world's online labour is to be found. The inputs from various stakeholders will provide the basis for further research in India. Another goal of the workshop was to examine the viability of a certification mechanism to rank and rate platforms. The workshop was attended by members of the academia, international policy agencies, think tanks, corporate research labs, worker and civil society organizations, activist groups, labour unions, platform representatives, lawyers and online workers.




**Inauguration of new water** body at the entrance of IIIT Bangalore was held on July 6. Prof. S. Sadagopan, Director inaugurated the water body and faculty and staff members were part of the event.

SAC 2017 gave a **farewell party** to outgoing batch of 2018 on July 7.



**18th Convocation of IIIT Bangalore** was held on July 8. Prof V. Ramgopal Rao, Director, IIT Delhi was the chief guest, and Dr. Aloknath De, CTO, Samsung India, the guest of honour at the event. Mr. Kris Gopalakrishnan, Chairman of the IIIT Bangalore Board, presided over the function and declared the convocation open. The 280 students who graduated from its various post-graduate programmes, had 7 graduating with a Doctor of Philosophy degree, 5 with a Master of Science by Research degree, 175 with a M.Tech.

degree from the 2-year programme, 56 with a B.Tech. and an M.Tech. degree from the 5-year Integrated programme, 31 with an M.Tech. degree from a sponsored program by Samsung, and 6 with a M.Sc. in Digital Society degree.

For photos: https://photos.app.goo.gl/AxWYzeUtbSKE4Hwr5



IIITB hosted **IEEE's first identity unconference** in India on July 10-11. Title of this unconference was "**Digital Inclusion through Trust and Agency**" and it includes series on sessions. Some of the main topics included affordable solutions ; decentralized identity; secure identity protocols; blockchain and "user-centric" identity; ethical and cultural considerations for inclusion; protocol and policy impact of "user-centric" identity; trust and agency frameworks that deliver "the right to be forgotten".

**Admission for M.Sc. Digital Society** was held on July 13. 20 students joined the course for the academic year 2018-20.

**Admission for M.Tech 2018-20** was held on July 17. Total of 161 students including 134 for Computer Science Engineering and 27 for Electronics and Communication Engineering joined the course on that day.



**64th Senate Meeting** of IIIT Bangalore was held on July 25.

**Visualization Groups Meetup** on July 25, saw a half-day workshop at IIIT Bangalore between Graphics-Visualization-Computing Lab (GVCL) of IIIT Bangalore and the Visualization Graphics Lab of IISc. Profs. Jaya Sreevalsan Nair and Amit Chattopadhyay and their research groups along with the research group of Prof. Vijay Natarajan, IISc, discussed ongoing projects in their respective labs.



**IIIT Bangalore and Bionic Yantra signed a 3-year MoU** on July 27, to jointly conduct research in the area of healthcare and medical devices using Machine Learning, AI, and other advanced techniques. Bionic Yantra will be the first industry partner to undertake such a collaboration under the MINRO (Machine Intelligence and Robotics) initiative, funded by the Govt of Karnataka to promote breakthrough innovation.

The MoU was signed in the presence of Prof Sadagopan (Director IIIT Bangalore) andDr. C S Kedar ex-IAS, Director, Strategic Alliances and Institutional Engagement, Bionic Yatra.

The **Research Advisory Council**, comprising of Prof. P Balaram, Prof. P Satishchandra, Prof. B S Sonde and Prof. S S Prabhu convened at IIIT Bangalore on July 25. The Council met with the Principal Investigators of all sponsored research projects conducted at the Institute.





**New faculty members of MIIT arrived** at IIIT Bangalore for a Faculty Development Programme on July 29.

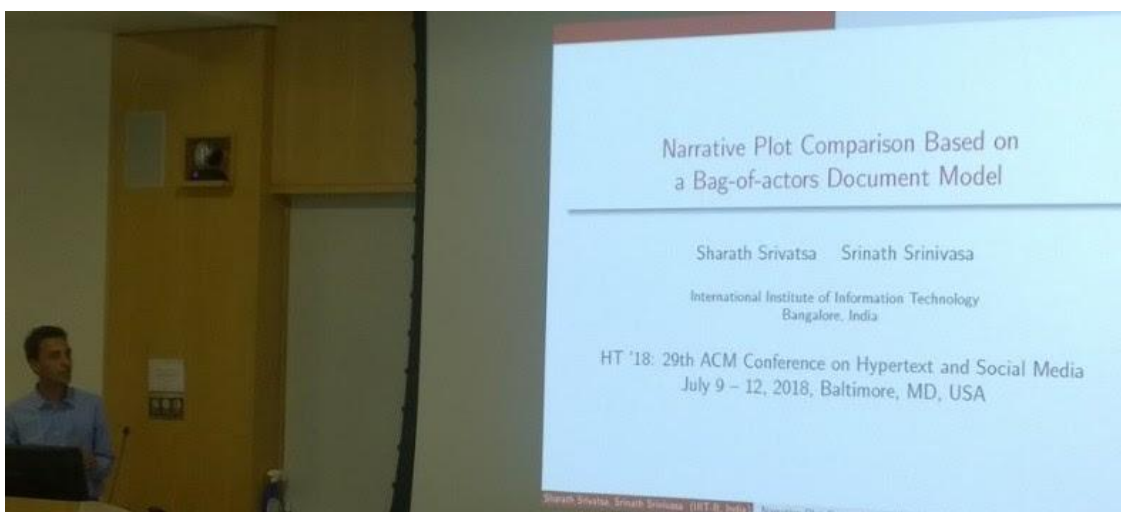Total 116 students including 87 for CSE and 29 for ECE **admitted to Integrated MTech** (iMTech) on July 31.



In July, IIIT Bangalore has procured for the current academic year the licenses for the **Turnitin anti-plagiarism software**. This is in lines with the effort to enforce academic integrity on campus in academic and research activities.

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## Publication Including Presentations

Prof. Sachit Rao presented his paper titled **"Selection of Switching Surface Parameters in the Presence of Control Constraints in Aerospace Applications"** at the International Workshop on Variable Structure Systems and Sliding Mode Control, which was held during July 9-11 in Graz, Austria.

Sharath Srivatsa (MS2015012) presented his work "**Narrative Plot Comparison based on a Bag-of-actors Document Model**" at the 29th ACM Conference on Hypertext and Social Media (ACM HT'18) at Baltimore, USA, during July 9-11.



Dr. Aparna Lalingkar presented poster of her work, "**Deriving semantics of learning**

**mediation**" at the 18th IEEE International Conference on Advanced Learning Technologies (ICALT) at IIT Bombay during July 9-13.

Sridhar, V. (July 11, 2018)V-Band and the policy dilemma. Financial Express.

Book chapter by Balakrishnan Ashok, "**Dynamics and kinematics at small scales: from micro and nano bubbles to nano tubulation**", in `Unifying Themes in Complex Systems IX", A. J. Morales et al. (Eds.): ICCS 2018, Springer Proceedings in Complexity, pp. 210-219, Springer Nature (2018).

https://doi.org/10.1007/978-3-319-96661-8_22
ISBN 978-3-319-96660-1

Neha Oraon (PH2013008) presented her paper titled "**Stick diagram representation for nanomagnetic logic based combinational circuits**", co-authored by Prof. Madhav Rao, at the 18th IEEE International Conference on Nanotechnology 2018 conference, in July 22-26, Cork Island, Ireland.

The article "**Analytics on the cloud**" by Ankita Christine Victor (IMT2014005) and Prof. Shrisha Rao appeared in the July-August issue of IEEE Potentials. The complete reference is: Ankita Christine Victor, Shrisha Rao (2018). Analytics on the cloud, IEEE Potentials, vol. 37 (4), July-August, pp. 24--27. DOI: 10.1109/MPOT.2018.2824358.

The work of Vishwanath Acharya, Piyush Singh Bora, Navin Karri (all graduated with MTech in 2018) on using machine learning to classify over 1 billion astronomical objects, building on work started by Anisha Nazareth and Anusha P.S. (Integrated MTech, 2017), under the supervision of Prof. Shrisha Rao, was published in the July 25, 2018 issue of Current Science. The citation is: Vishwanath Acharya, Piyush Singh Bora, Karri Navin, Anisha Nazareth, P. S. Anusha and Shrisha Rao. **Classification of SDSS photometric data using machine learning on a cloud**. Current Science, vol. 115 (2), pp. 248--257, July 2018, DOI: 10.18520/cs/v115/i2/249-257.

Brijesh Kumar Mishra & Balakrishnan Ashok, paper published in Materials Research Express: "**Coaxial carbon nanotubes: from springs to ratchet wheels and nano bearings"** Mater. Res. Express vol.5, 075203 (2018).

A paper titled "**Exact and Fixed-Parameter Tractable Algorithms for Max-Conflict-Free Coloring in Hypergraphs**" co-authored by Pradeesha Ashok appeared in SIAM Journal on Discrete Mathematics.

Pradeesha Ashok, Aditi Dudeja, Sudeshna Kolay, Saket Saurabh:

Exact andFixed Parameter Tractable Algorithms for Max-Conflict-Free Coloring in Hypergraphs. SIAM J. Discrete Math. 32(2): 1189-1208 (2018)

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## IIIT Bangalore in Media

[1.2 crore package from Google for 22 year old IIIT Bangalore student ...](#)

[20 Most Prominent Analytics & Data Science Academicians In India: 2018](#)

[22-Year-Old Bengaluru Student Bags Rs 1.2 Crore Annual Package At ...](#)

[A 22-year-old Bengaluru student gets Rs 1.20 Cr offer from Google AI ...](#)

[Bengaluru student bags a Rs 1.2cr annual package at Google](#)

[Bengaluru Student Makes it to Google AI Team, Will be Paid Rs 1.2 ...](#)

[Flipped classrooms gaining popularity in colleges](#)

[Forgotten icons of the information technology revolution](#)

[Google hires 22-year-old IIIT graduate at Rs 1.2 crore for AI research](#)

[Google hires 22-year-old IIIT-B graduate for AI research](#)

[Google hires IIIT Bangalore student at an annual package of Rs 1.2 ...](#)

[How IIIT-B student turned 'learning opportunity' to Rs. 1.2cr Google ...](#)

[IIIT Bangalore student bags Rs 1.2 crore job at Google](#)

[IIIT-B Student Bags ₹1.2 Crore Residency With Google AI](#)

IIIT-B student makes glove to help motor neuron disease patients

IIT Bangalore student bags Rs 1.2 crore job at Google

India's Rs 4500 Cr Supercomputer Mission on track, first one expected ...

Infosys co-founder bats for higher spending on research

International Institute of Information Technology Bangalore student ...

Meet Aditya Paliwal, the Bengaluru student who bagged a Rs 1.2 cr package at Google

Meet the 10 winners of Nasscom's AI game changer awards

Rs 1.2 crore salary for IIIT-B graduate, 95 per cent placed

Success snatchers

Rs 1.2 crore job with GooglewhoppingThis IIIT student has bagged https://vijaykarnataka. indiatimes.com/district/bengalurucity/bengaluru-student-aditya-paliwal-gets-1-2-cr-google-package/ articleshow/64906573.cms

https://vijaykarnataka.indiatimes.com/district/bengalurucity/bengaluru-student-aditya-paliwal-gets-1-2-cr-google-package/articleshow/64906573.cms

## Faculty, Staff and Students

Prof. Meenakshi D'Souza attended the **ACM-W India Grad Cohort** held at IIT-Mumbai during July 6-7. Prof. Meenakshi, jointly with Kalika Bali from Microsoft Research conducted a session on "Phd academic and non-academic career paths. Job hunt". She also participated in a panel discussion on "Work life balance: Balancing graduate school and personal life."

Balaji Parthasarathy delivered a talk titled "On research in architecture and the architecture of research" on  July 13, in the Faculty Development Programme on Research in Architecture, held at the Dayanand Sagar College of Architecture on behalf of the Council of Architecture's Training and Research Center.

Prof. V. Sridhar gave an invited talk on "**ICT Policies and Regulation: Is India different from other countries?**", at the Internet Governance Lab, School of International Service,

American University, Washington D. C., USA, on July 13.



Prof. Srinivas Vivek gave an **invited lecture on cryptography** on July 23 at the Global Academy of Technology, Bengaluru. The talk was of an introductory nature to the area of cryptography, focusing mainly on the security of cryptographic implementations.

Prof. B. Ashok presented a talk "**Dynamics and kinematics at small scales: from micro and nano bubbles to nanotubulation**" at the Ninth International Conference on Complex Systems, during July 23-27, Cambridge, MA, USA.

Prof. Amit Prakash attended an event organized by the partner organizations of the Zurich Community Trust (ZCT) and Disability NGO Alliance (DNA), on July 26, bringing together industry, individual philanthropists, trusts, foundations, and academia to participate, reflect and evolve an approach for social sector development, on the theme, "**Investment in Social Sector through Partnership**".

Balaji Parthasarathy delivered the keynote address at the seminar on Pedagogy and Practice of Public Policy in India hosted by the O. P. Jindal School of Government and Public Policy, O. P. Jindal Global University, Haryana, on Saturday, July 28.

Students of IIIT Bangalore attended **The Hague India Cyber Security Summer School** held during July 9-13 in The Hague, Denmark. The travel was fully sponsored by Department of IT, BT and S&T, Govt of Karnataka. The students who attended the summer school are Anjana Prabhakar (PH2015014), Sharvari N. P. (PH2017004), Sharvari Ravindran (MS2017005), Vadari Dakshayani (IMT2014061), and Shashank (IMT2014048).

## Academic Milestones

Annapurna Sharma (PH2015015) completed her Ph.D. announcement of State of the Art Seminar titled "**Automated Scoring for Handwritten Essays**" on July 3.

Chinchu Thomas (PH2015017) completed her Ph.D. Announcement of State of the Art Seminar titled "**Multimodal Learning and Teaching Analytics for Classroom and Online Educational Settings**" on July 2.

Anushka Chandrababu (PH2012001) completed her Ph.D. Announcement of Open Seminar titled "**A Convex Model Extension to Databases - Facilities, Query Optimization and Applications**" on July 20.

Avijit Mandal (PH2015016) completed his Ph.D. Announcement of State of the Art Seminar titled "**Motion and path planning for Industrial robots with dynamic collision avoidance**" on July 27.

Rajanikanth N Kashi (PH2011004) completed his Ph.D. Announcement of Open Seminar titled "**Verifiable Multi-agent Framework for Dependable and Adaptable Avionics**" on July 27.

## Campus Visitors

**July 4**: Dr. K R Raghunath, Vice chairman & Mr. H S Prakash, GM Public relations, Sitaram Jindal Foundation.

**July 4**: Mr. Rajesh Iyer, HCL, Singapore.

**July 16**: Dr. Vidyadhar Mudkavi, The Head, CSIR-4PI

**July 16**: Mr. Natarajan, Former CMD, BEML

**July 18**: Prof. Lakshmish Ramaswamy, The University of Georgia

**July 19**: Dr. Preetha Ram, Chief Academic Expansion Officer, Harrisburg University

**July 20**: Prof. Rahul De & Team, Indian Institute of Management Bangalore

**July 20**: Prof. Prashant Sankaran, Director, Interweave

**July 25**: Sony Global R & D team



**July 26**: Mr. Kulkarni, Ex- KEONICS and  Manish Kumar, MD Rooman Technologies

**July 30**: Mr. Ramann, IA and AS &Dr. Mohan Ram NESL.

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## Samvaad Talks

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"**Applying Machine Learning to Support Human Learning**" by Prof. Manish Gupta on July 2.

"**Coverage Enhancement for Machine Type Communication**" by Prof. Jyotsna Bapat on July 16.

"**Some methodologies for testing and verification of embedded software**" by Prof. Meenakshi D'Souza on July 23.

"**Challenges in processor design: performance and security**" by Prof. Nandita Rao on July 30.

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## Campus Calendar for August & September 2018

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**August 1**: Master of Science by Research and Ph.D. admission

**August 15**: Independence Day

**September 05**: General Body Meeting

**September 15**: 19th Foundation Day

**September 18-19**: UGC Expert Committee Visit

**September 24-29**: Term I Midterm Exams

**September 26**: Annual General Body Meeting