



International
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Technology Bangalore

Newsletter
November 2018



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From the Director's Desk



We started the month of November with the completion of Yamini 2018, a Spic Macay event from dusk to dawn, and the celebration of Karnataka Rajyotsava on campus. The good start was a harbinger for other energetic events on campus for the rest of the month. The academic activities for the semester wound down by the end of November, with the campus being ready for exam week in early December.

November has been a month of rejoice for science and technology in India. ISRO made one more perfect launch of G29 Satellite on November 14 and launched 31 satellites including India's Hyper-Spectral Imaging Satellite (HysIS) on November 29. Infosys Prizes for 2018 has been announced on November 13 by Infosys Science Foundation; Professor Navakanta Bhat of Indian Institute of Science for the Engineering & Computer

Science; Professor Kavita Singh of JNU for Humanities; Professor Roop Mallik of TIFR for Life Sciences; Professor Nalini Anantharaman of Strasbourg for Mathematical Sciences; Professor SK Satheesh of Indian Institute of Science for Physical Sciences and Professor Sendhil Mullainathan of University of Chicago for Social Sciences are the recipients.

HAPPY READING!

Achievements

Prof. S. Sadagopan, Director was awarded with Technology Excellence Award at the **20 Years of Intel India – Celebration a milestone event on November 15 at Intel India, Bengaluru.**

Samsung Best Paper Award (SBPA) 2018, Silver Medal, it is a Global Award for the areas under Samsung Electronics (Networking, Mobile, Communication, Electronics, etc.), paper titled "**A Novel Process to Avoid Redundant Encryption and Decryption in WiFi Mesh Network**", authors: Kavin Kumar Thangadorai (SMT2015014), Vimal Bastin Edwin Joseph (SMT2015035), Kumar Murugesan (EMT2013014), and Prof. Debabrata Das, Seoul, South Korea.

Amitabh Tiwari (MT2017018) and Tarun Pandey (MT2017128) participated in and secured top 10 ranking out of 1900 teams in Alexathon'18, a hackathon organized by Amazon. They built and published an Alexa skill (Voice Based Software Solution) to assist travellers in India by making itinerary planning smooth and simple.

Participation from IIITB in ACM ICPC has peaked for the upcoming competition, as six student teams have qualified for regionals. This is the first time IIITB qualified for all the regionals and the student teams bagged 9 slots at the ICPC regionals. In all, 65 teams have registered for regionals. The students from the iMtech 2017 batch have relatively performed well. The teams are coached by Prof. Muralidhara and Vivek Yadav. The six qualifying teams are: (a) Grey Coders (Mahidhar (IMT2016070), Shobhit (IMT2016024) and Varada Desikan (IMT2016115)), which qualified at both Amritapuri and Gwalior regionals; (b) Don't Know Don't Care (Nimisha (IMT2016082), Shreya (IMT2016122) and Venkat (IMT2016029)), which qualified at both Amritapuri and Kolkata regionals; (c) Wokayish3 (Ananya (IMT2017004), Lalitha (IMT2017027) and Swasti (IMT2017043)), which qualified at both Amritapuri and Kharagpur Regionals; (d) Goldbach (Deepanjan (MT2017038),

Jatin (MT2016065) and Shubham (MT2016079)), which qualified for Amritapuri regionals; (e) Relentlessly_Outmached (Khalid (IMT2017028), Rathin (IMT2017522) and Sushranth (IMT2017042)), which qualified at the Amritapuri regionals; and (f) Kitne_aadmi_the (Archit (IMT2016064), Sonal (IMT2016079) and Vaibhav (IMT2016068)), which qualified at the Amritapuri Regionals.



Balaji Parthasarathy received a grant of GBP 3000 from the Development Implications of Digital Economies (DIODE) Research Network, based at the University of Manchester, UK, to develop a research agenda on the "The role of the developmental state in the platform economy".

Profs. Manish Gupta and Srinath Srinivasa made a presentation at the Falling Walls Venture event (<https://www.falling-walls.com/venture>) on November 8. IIITB nominated VideoKen, which became one of the 24 startups selected, and among two from India for the finals of the Falling Falls Science Startup of the Year. Prof. Srinath Srinivasa, representing IIITB opened the presentation, and Prof. Manish Gupta made a pitch for Videoken, of which he is the co-founder and CEO. The video of the presentations can be seen at <https://videoken.com/embed/dA4-tEk-8Kk> and the aforementioned presentation is at time instance 2:01:51, which is listed in the Table of Contents. More information at <https://falling-walls.com/venture/startups-2018/videoken>



AgroBlock, a solution from IoTracX, a startup enterprise incubated at the IIITB Innovation Center, was selected as one of the winners of Elevate 2018 from Karnataka startup initiative. AgroBlock, which is a single step traceability solution for Agri supply chain, was one of the exhibitors in Bengaluru tech summit held during November 29-December 1 at the Bengaluru Palace Grounds. For more details:

<https://www.bengalurutechsummit.com/>



Campus News

The **74th Governing Body** meeting of IIITB was held on November 14.

The **2nd Graduation Ceremony of Post Graduate Diploma in Data**

Analytics/Data Science was held on November 24 at IIIT Bangalore. The second and third cohorts started with 795 students out of which 659 students graduated that day. The degree certificates were given out by the chief guest Mr. Gururaj Deshpande, Chief Operating Officer at EdgeVerve Systems at Infosys Company Bengaluru. Mr. Ronnie Screwvala, co-founder, UpGrad. Prof. S. Sadagopan, Director, IIIT Bangalore, Prof. Tricha Anjali, Associate Dean, PGDDS programme, Mr Mayank Kumar, Co-Founder UpGrad, Prof. Chandrashekar Ramanathan, Dean (Academics), and other faculty members of IIIT Bangalore attended the event.



Aikyam (IIITB student club) and a group of IIITBians celebrated Diwali with the residents of a slum near Swami Vivekananda Nagar, Sulikunte, Bengaluru on November 6 evening. They distributed rice packets, toor daal, blankets, sanitary pads, soaps, sweets, and bananas to families that reside in the area.



Aikyam and students of IIITB has a tradition of celebrating Diwali with the housekeeping, gardening, maintenance, security and mess staff along with their families. On November 7 students organised a special event which included games, performances, and lunch for this troop. The day ended with a distribution of sweets.



The on-site written examination and interviews for the **admissions to Master of Science by Research and Ph.D. program** for January 2019 semester was held on November 28.



Publication Including Presentations

The paper titled, "**A Scalable Clustering Algorithm for Serendipity in Recommender Systems,**" authored by Anup Anand Deshmukh (IMT2014013), Pratheeksha Nair (IMT2014040), and Prof. Shrisha Rao, has been accepted and

presented on October 28, at the 1st Workshop on Scalable and Applicable Recommendation Systems (SAREC), held in conjunction with the IEEE International Conference on Data Mining (ICDM), in Singapore. The paper will appear in the conference proceedings by the IEEE Computer Society Press. The schedule of the presentation has been published at: <https://sarec2018.org/?p=101>



Sridharan Natarajan (SMT2015027) and Debabrata Das presented their paper titled "**Cache Enabled CUPS Architecture for Evolved MBMS of LTE-Advanced for Latency and Bandwidth Saving Improvements**" at IEEE TENCON-2018, Jeju, South Korea held during October 28-31. The paper will be available on IEEEXplore, as a part of the conference proceedings. More details about the conference is at: http://tencon2018.org/?page_id=173

Sridhar, V. "Public sector Telcos shouldn't be sidelined". The Hindu Business Line, November 5. <https://www.thehindubusinessline.com/opinion/public-sector-telcos-shouldnt-be-sidelined/article25419311.ece>

Tarun Dutt (IMT2014059) presented his paper titled "**Optimizing Schedule of Trains in Context of a Large Railway Network**" at the 2018 IEEE Intelligent Transport Systems Conference, (ITSC 2018) held in Maui, Hawaii, on November 6. The co-authors of the paper are Sanat Ramesh (IMT2012039), Anushka Chandrababu (PH2012001), Abhilasha Aswal (PH2009901) and Prof. G. N. S. Prasanna. The paper will be published by the IEEE and will appear on the IEEEXplore. The paper can be found in the conference program at:

https://its.papercept.net/conferences/conferences/ITSC18/program/ITSC18_ContentListWeb_3.html

The paper titled, "**A Faster Sampling Algorithm for Spherical k-means**", authored by Rameshwar Pratap, Anup Deshmukh (IMT2014013), Pratheeksha Nair (IMT2014040), and Tarun Dutt (IMT2014059) has been accepted and presented at the 10th Asian Conference on Machine Learning, at the Beijing Jiaotong University, Beijing on November 16. More information can be found at: http://www.acml-conf.org/2018/ACML%202018%20Main_Accepted%20Papers.html

Daniel Gatica-Perez, Dairazalia Sanchez-Cortes, Trinh Minh Tri Do, Dinesh Babu Jayagopi, and Kazuhiro Otsuka. 2018. **Vlogging Over Time: Longitudinal Impressions and Behavior in YouTube**. In Proceedings of the 17th International Conference on Mobile and Ubiquitous Multimedia (MUM 2018), Slim Abdennadher and Florian Alt (Eds.). ACM, New York, NY, USA, 37-46. DOI: <https://doi.org/10.1145/3282894.3282922>

<https://dl.acm.org/citation.cfm?doid=3282894.3282922>

This paper, which is an outcome of collaborative work of Prof. Dinesh Jayagopi (IIITB) with D. Gatica-Perez (EPFL, Switzerland) and K. Otsuka (NTT communication Labs, Japan), was presented at the conference in Cairo, Egypt, on November 26, in the session for "Understanding and Changing Behaviour". <http://www.mum-conf.org/2018/index.php?web=program>

J. Sreevalsan-Nair, "**Visual Analytics of 3D Airborne LiDAR Point Clouds in Urban Regions**," in Sarda N., Acharya P., Sen S. (eds), Geospatial Infrastructure, Applications, and Technologies: India Case Studies, pp 313-325, Springer, Singapore, November 2018. https://doi.org/10.1007/978-981-13-2330-0_23

A. Subramanian, and Srinivasa S., "**Semantic Interpretation and Integration of Open Data Tables**". In: Sarda N., Acharya P., Sen S. (eds) Geospatial Infrastructure, Applications and Technologies: India Case Studies, pp 217-233, Springer, Singapore, November 2018. https://doi.org/10.1007/978-981-13-2330-0_17

Sridhar, V. (2018). Vistaar lends itself to small businesses. Asian Business Case Center. Case No. ABCC-2018-029. Nanyang Business School, Nanyang Technological University, Singapore.



IIIT Bangalore in Media

['Fake news affects open debate'](#)

[Here's why UpGrad stands for career growth](#)

[UpGrad records 400+ career transitions](#)

[4 Bengaluru coders among 5 top geek goddesses](#)

[Rabat & New Delhi Agree on Mutual Legal Assistance in Fight Against ...](#)

[Satisfaction in science](#)

[Demand for analytics high but nearly 76000 vacancies unfulfilled: survey](#)

[Educomp Shantanu Prakash to Gaurav Munjal's Unacademy, edtech ...](#)



Faculty, Staff and Students

Balaji Parthasarathy delivered a talk titled **the "Evolution of the Indian software industry, 1985-2015"** at the Instituto de Desarrollo Económico y Social (IDES) Buenos Aires on November 5.

"Development and preliminary evaluation of a multi-function technology-based platform for improving mental health care and help-seeking for common mental disorders", a collaborative project proposed by Dr. Seema Mehrotra (NIMHANS) and Prof. T. K. Srikanth (IIITB) has been selected by Microsoft Research, as a part of their call for proposals for collaborative projects on Cloud and AI technology for Societal Impact. The announcement of selected projects was made on November 5. The project will be implemented jointly by NIMHANS, E-health Research Center (EHRC) at IIITB, and Microsoft Research. The details are at:

<https://www.microsoft.com/en-us/research/event/msr-india-call-for-collaborative-projects-on-cloud-and-ai-technologies/#!selected-projects>

Balaji Parthasarathy delivered a public lecture on **"The National System of Innovation in India and its Globalization"** at the Facultad Regional Rafaela of the Universidad Tecnológica Nacional, in Rafaela, Argentina, November 7.

Balaji Parthasarathy delivered a lecture on **"Innovation Policies and Technological Change" as part of the certification program in "Innovation and Creativity"** offered by the University Nacional de Rafaela, with the International Council on Small Business (ICSB) and George Washington University, Washington DC, in Rafaela, Argentina, on November 9.

Srinath Srinivasa participated as a member of the **Executive Committee on Data, at the EC meeting of the [National Spatial Data Infrastructure \(NSDI\)](#)**, New Delhi, India, on November 12.

Prof. V. Ramasubramanian gave an invited talk titled **"Semi-supervised and active-learning scenarios: Efficient acoustic model refinement"** at the Samsung AI Conclave, Samsung, Bangalore, on November 13.

IITB faculty members gave invited talks at the CEP on Deep Learning for Video, Text, and Speech Processing, at CAIR, DRDO, Bangalore, on November 14. Prof. Dinesh Babu Jayagopi gave a talk titled **"Human Centered Vision and Applications"** and Prof. V. Ramasubramanian gave one titled **"Deep Learning for ASR: Basic Principles of Deep Neural Network (DNN) based Acoustic Modeling"**.

Meenakshi D'Souza delivered a lecture to sponsored graduate students at **GHCI (Grace Hopper Celebration India), held at BIEC, Bengaluru**, on November 16. This was jointly with Kailka Bali from Microsoft Research and Ruchika Panesar from American Express.

Meenakshi D'Souza delivered an invited talk on **"Graphs in testing of web applications"** on November 23 at CMRIT College of Engineering, Bengaluru.

Prof. Debabrata Das went as an **expert in faculty promotion committee** (CSE n ECE) of IIIT-NR on November 25.

Prof. Dinesh Jayagopi gave an invited talk "**Applied Traffic and Driving visual analytics**" at Intel Bengaluru on November 22.

IIITB participated in the **Bengaluru Tech Summit inauguration** organized by GoK, IT BT Dept during November 29 - December 1, in the Bengaluru Palace grounds. Profs. Sadagopan and Madhav Rao, and Kalpana associated with MINRO project participated on November 29. **Udayavani Newspaper** published the work of SARL lab affiliated to **MINRO@IIITB** and **EHRC@IIITB** on November 30. The following work and prototype devices which were exhibited throughout the summit, were featured in the Newspaper article: (a) Lower limb device to overcome Deep Vein Thrombosis problems, (b) EEG Headgear device for motion control, (c) A hyperflexible single port, surgical, and drilling probe, and (d) An anthropomimetic upper limb device for rehabilitation of post stroke patients. The SARL lab is led by Prof. Madhav Rao, Prof. T K Srikanth, and Dr. Vikas Vazhiyal (NIMHANS and PH2016014 at IIITB). The core student members who worked in the above devices are Vinay Chandrashekar (IMT2015523), Krishna Nagaraj (MT2015512), Aravind Reddy (IMT2015524), and Sriram Marisetty (IMT2016120). The article is at:

http://epaper.udayavani.com/archive/home.php?edition=Bengaluru&date=2018-11-30&pageno=2&pid=UVANI_BEN#Article/UVANI_BEN_20181130_2_3/220px

The seminar on digital economy has been jointly organized by the **Telecom Regulatory Authority of India (TRAI) and IIITB** on November 29 at the Hotel Paraag, Bengaluru. Prof. V. Sridhar has played key role in organizing the event. He gave the plenary talk on "Digital Platforms: Characteristics and Regulatory Challenges". Prof. Janaki Srinivasan has also participated in the event and moderated a panel discussion on "Digital Finance: ". The announcement of the seminar is at:

<https://www.traai.gov.in/events/seminar/seminar-digital-economy>

<https://www.traai.gov.in/sites/default/files/Seminar05112018.pdf>



Students

A tutorial by Aravind Vuggu (IMT2015524), "[UIkit with Vue.js—Vue-CLI 3](https://news.vuejs.org/issues/113)" published on September 29 has appeared at <https://news.vuejs.org/issues/113>

The article was also shared by @VueJsDevelopers and @VueMastery on Twitter.

<https://twitter.com/vuejsdevelopers/status/1050823484245463040>

<https://twitter.com/VueMastery/status/1049694846028529665>

Chinchu Thomas (PH2015017), completed her **3-month internship at the Idiap Research Institute, EPFL, Switzerland** during August 15 - November 15, as a result of a Mobility grant she secured from ZHAW, Switzerland. ZHAW is the Leading House for research collaboration with partner institutions in South Asia and Iran.

Late Reporting

Prof. Debabrata Das gave an invited technical talk on, "**Radio Resource Optimization in Case of Profile-Migration for 5G Network Slicing**" at 5G Technology and Standards Track, India Mobile Congress (IMC 2018), organized by IEEE and TSDSI

(Telecommunications Standards Development Society, India), Aerocity, New Delhi during October 25-27.

Academic Milestones

November 21: Thesis oral examination of Nandakishore K. N. (MS2015007) on his thesis, "**Design of a Quality-of-Service Framework for Digital Platforms**".

November 29: Thesis oral examination of **Surabhi Jha (MS2014007)** on her thesis, "WCET of a control code in automation systems".

Guest Talks

November 5: "**Fast computation of uncertainty in deep learning**" by Dr. Emteyaz Khan, RIKEN, Tokyo, Japan.

November 21: "**Connecting the Dots**" by Prof. Rajendra K. Bera, chief mentor at Acadinnet Education Services, India.

November 28: "**Validation of Optimizing and Parallelizing Transformations using Dependence Graph Abstraction**" by Dr. Sudakshina Datta, Department of Computer Science and Engineering, IIT Kharagpur.

November 28: "**Mathematics in Science and Technology**" by Prof. Sujatha Ramadorai, Professor of Mathematics and Canada Research Chair at University of British Columbia, Canada.

November 29: "Developing a network or A trip along Memory Lane" by Mr. Jaap Akkerhuis an Inductee to the Internet Hall of Fame 2017.



November 08: Dr. Kota Harinarayana, DRDO & Dr. Vidyadhar Mudkavi, Head, CSIR Fourth Paradigm Institute.

November 12: Dr. Christine Kahlen, Head of Division Digital Economy, Start-ups, Digital Summit Federal Ministry of Economic Affairs and Energy (BMWi), Berlin, Germany; Dr. Andreas Goerdeler, Dipl.-Volkswirt Federal Ministry for Economic Affairs and Energy, Berlin, Germany; Dr. Alexander Tettenborn, LL.M (USA), Federal Ministry for Economic Affairs and Energy, Berlin, Germany; Matthias Kuom, International Co-operations Manager Project Management Agency –part of the German Aerospace Center, Society, Innovation, Technology; Mrs. Caroline Silva-Garbade, Economic Counsellor from the German Embassy New Delhi; Mrs. Margit Hellwig-Boette, Consul General of Germany in Bengaluru; Mr. Karl Ehlerding Deputy Consul General of Bengaluru; Dr. Manjula Mundakana, Science Advisor Consulate General of the Federal Republic of Germany.



November 13: Ms. Janaka Pushpanathan, Director South India, British Council & Ms. Manjula Rao, Director, Higher Education and Society India.

November 13: Ms. Dana Krush, Deputy Chief of Mission, Embassy of Israel



November 16: Mr Mukul Saxena, CTO, Executive Vice President & Mr. Ramesh Viswanathan, Vice President Research from Havells India Ltd.

November 20: Prof. Sarat Kumar Patra, Director, IIIT Vadodara.

November 21: Mr. Christian Raetzsch, Vice President, CTO and Quantum Ambassador IBM Systems, Asia Pacific.



November 21: Dr. Selvaraj Vadivelu, Sasken Technologies LTD.

November 21: Mr. Christian Raetzsch, IBM Quantum Ambassador & CTO.

November 22: Dr. K. M. Abraham, IAS (Rtd), Former Chief Secretary of Kerala.



November 23: Mr. Gururaj Deshpande Chief Operating Officer, Edge Products (RPA/AI) at EdgeVerve (An Infosys Company), VP & Head - Infosys Bengaluru Center.

November 23: Dr. Ashok K. Mittal, former Dean of IIT Kanpur.

November 24: Mr. Gururaj Deshpande, Chief Operating Officer, Infosys, Bengaluru (Chief Guest for the Graduation Ceremony of PGDDA/DS 2017-2018).



Samvaad Talks

November 5: **"Evolution of Blockchain"** by Prof. Tricha Anjali.

November 12: **"Subpixel Learning Algorithms for Estimating Global Land Cover Fractions from Satellite Data Using High Performance Computing"** by Prof. Uttam Kumar.

November 19: **"Online algorithm to minimize total flow-time"** by Prof. V. N. Muralidhara.

November 26: **"Some paradigms in automatic speech recognition"** by Prof. V. Ramasubramanian.



Campus Calendar for December 2018 - January 2019

December 3-8: Finals week.

December 5: 65th Senate Meeting.

December 9-31: Term break.

December 10-12: CITAPP Winter School titled, "**Towards an Inclusive Digital Society: Shaping the Agenda for Technology Design**".

December 19: Felicitation ceremony for Prof. Srinivasan Ramani, on the occasion of elevation to IEEE Fellow.

December 25: Holiday - Christmas.

January 1: Term 2 (2018-19) begins.

January 1: Arrival of new batch of Master of Science by Research and Ph.D. students.

January 7: Commencement of joint IBAB-IIITB P. G. Diploma programme on Big Data in Biology, sanctioned by the Department of Biotechnology (DBT), Government of India.

January 14: Makara Sankranti

January 26: Holiday - Republic Day

