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### From the Director's Desk



IIITB Faculty were busy recruiting future students and arranging placements for graduating students through the months of May and June. Admission lists were announced for M.TEch and iMtech, M.Sc (DS) students based on GATE and JEE Score.

As always, June goes in preparation for our Convocation in July. June saw the behind-the-scenes activity and the campus was bustling in preparation for the Convocation Our 19th Convocation is a special one, which will be covered in the July edition of the Newsletter.

We had a series of events and guest speakers in May & June. We had GADD program at IIITB, ACM Summer School was organized in June Bristol University team visit, Victoria India EdTech Workshop at IIIT Bangalore. Besides, on June 7, a product of our joint collaboration with NIMHANS – Mythri1.0 IIITB surgical Probe device, was launched.

#### **HAPPY READING!**

#### **Achievements**

Jhalak Sharma (Master of Science by Research) supervised by Dr. Nanditha Rao, has been selected for the "Mitacs Globalink Research Internship" in collaboration with Prof. Otmane Ait Mohamed of Concordia University, Canada. The internship duration is from 17th June to 17th September 2019. The internship award is \$6000.

More details of the award can be found at:

https://www.mitacs.ca/en/programs/globalink/globalink-research-internship

# **Campus News**



**End-Term examinations** were held during May 3-11.

A day long workshop was held on May 09, 2019 by Mr Syed of Icare on the aspects of NAAC accreditation and preparation for the same. The Director, Deans, Registrar, Programme Coordinators and respective staff in-charges attended the workshop. Aspects of data collation and assessment on the following were discussed and examined in detail:-

- Teaching-Learning & Evaluation
- Infrastructure & Learning Resources
- Research, Innovations & Extension
- Curricular Aspects
- Governance, Leadership & Management
- Student Support & Progression
- Institutional Values & Best Practices

Prof. Chetan Parikh made a presentation on Grading Methodologies, as a part of the IQAC Quality Improvement Initiative for Faculty Members, on May 14, 2019. The presentation discussed three relative grading methods used worldwide - Gaussian, Minimum-Maximum based, and Natural-gap based. Subsequently, it addressed two broad-

based issues related to grading. These were, the appropriateness, or otherwise, of (i) awarding very high grades (A and A-) to the entire class, when the class size is large, and (ii) having teaching assistants grade various evaluation components (final exams, tests, assignments, etc.).

**Global Accessibility Awareness Day (GAAD)** was organized by the E-Health Research Centre (EHRC) in partnership with Rotary Bangalore Abilities; Friends for Inclusion (IIITB IC Startup); Vision Empower (IIITB IC Startup) and ServeOM Inclusion, on May 15.





A free medical camp was organised by IIITB, in association with Fortis hospital, on May 22, and covered the campus community, including faculty and staff members. The camp, conducted to improve medical condition and bring in health awareness among the employees, carried out tests for blood pressure, random blood sugar, ECG and provided consultation, as well. Over 40 employees and their dependents availed the facility and underwent check-ups.

Apart from the health camp, as part of the Happy Health Hour (HHH) for the month of May, the Institute also organized a laughter yoga session as stress buster activity. The one-hour session witnessed over 25 participants joining the session and laughing their stress away. This was the fourth edition of HHH, which is organized by the institute with the aim of staying fit and happy.









To encourage gender diversity, an internship programme exclusively for women students (pursuing engineering) was launched under MOSIP during May 2019. It is named as 'Priti Shankar Women Internship' to honor the memory of the late Prof. Priti Shankar. The programme aims to bring in women interns from technical universities all over world. So far 12 students from various Indian cities have been offered the internship.



The Summer School 2019 on the Theoretical and Algorithmic aspects of Machine Learning was organized in the Institute during June 10-28. This School was sponsored by ACM India and co-sponsored by Microsoft and Mphasis Foundation. It was attended by about 45 students from various parts of the country and featured talks by the Institute's faculty and speakers from IIT Bombay, IIT Madras, IISc, Microsoft Research India, and Mphasis Foundation. This School is the second one in the series of Summer Schools that started in 2018.











**ELCIA along with UNDP (United Nations Development Programme) organised Job Mela for ITI Final year students in our campus** on 8th June, 2019. Prof S. Sadagopan (Director IIITB) inaugurated the event in the presence of Ms. Rama N. S., CEO-ELCITA and dignitaries from UNDP. Massive participation of Final ITI students from 8 colleges across Bangalore made this event successful. 5 regional companies offering apprenticeship to over 120 students, is the highlight of the event. ELCIA and UNDP are planning to conduct such events every year to connect ITI students with major manufacturing Industries.

The **International Yoga Day** was celebrated at IIITB, with a hour-long yoga session on June 21, 2019.

Virabhadrasana (warrior pose), chakrasana (wheel pose), katichakrasana (spinal twist pose) and chin mudra were some of the poses and mudras that were practiced. "Yoga essentially means 'union'. The practice is analogue to playing a musical instrument like guitar, if you do not fine tune the guitar, the music will not be pleasant to your ears; similarly, yoga teaches one to fine tune with oneself and with nature," said Kumarasimha N, yoga instructor, Art of Living.

After kicking away all the negativity through various poses, the IIITBians moved on to meditation and 'pranayamas'. "As per yoga, law of body is 'effort' and law of mind is 'effortlessness'. The secret of mental fitness is relaxation, and meditation is the height of relaxation your mind can achieve. Three golden rules of meditation are "I want nothing", "I do nothing" and "I am nothing". Meditation is about defocusing," said Kumarasimha.

Many attended the session with the aim of inculcating a healthy lifestyle. "I have been looking for some form of exercise or meditation to calm and relax my mind. The 'aasanas' taught in today's event were easy to follow and can be used at home or at work too. I have never been to a formal yoga session, but I enjoyed today's class," said Apurva Kulkarni, a Ph.D. student at IIITB.









68th Senate meeting of IIITB was held on June 19

"The International Leadership Programme" was hosted by IIITB and organized by the University of Bristol and Common Purpose, a training organization, during June 18-21 at IIITB. In the programme students came up with the idea of smart bin to solve Bengaluru's ever-growing garbage menace. As

many as 51 students from University of Bristol and IIITB teamed up with on-campus interns to address the question -- "How can we ensure technological innovation provides economic and societal values in cities?" -- as they took up the four-day programme that began on June 18. Designed to develop leaders of the future, ILP helped participants put their thinking caps on and come up with technology-based solutions to various challenges.





## **Publication Including Presentations**

Balaji Parthasarathy co-authored with Brinda Sastry, "Intelligence for place-making and social inclusion: Critiques and alternatives to India's Smart Cities Mission", as Chapter 43 (pp.571-581) in The New Urban Design Companion, edited by Tridib Banerjee and Anastasia Loukaitou-Sideris, and published by Routledge.

The paper titled "Distribution Transformer Condition Monitoring based on Edge Intelligence for Industrial IoT" authored by IIITB "Master of Science by Research" student Leny Thangiah (MS2015005) received the "Best Paper" award at the IEEE 5th World Forum on Internet of Things held at Limeric, Ireland on 15-18 April 2019. Prof. Chandrashekar Ramanathan and Sirisha Chodisetty (M.Tech. 2015-17 batch) are the coauthors of the paper.

Spoorthi M. N. (MS2017007) presented her work, "Low Power High Performance Decimal Floating Point Co-Processor for RISC-V" at RISC-V Workshop, held at ETH Zurich, Switzerland during June 12. The paper is co-authored by Prof. Subir Roy.



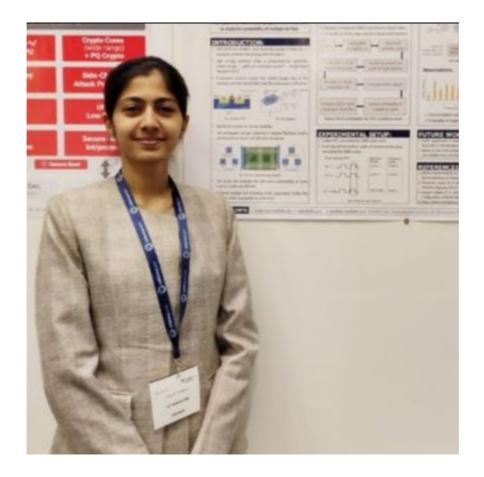


The Poster titled "Performance Enhancement of RISC-V cores through Value Prediction based on Dynamic Data Flow Analysis", authored by Manpreet Kaur Jaswal (PH2016006), Prof. Subir Kumar Roy and Prof. Nanditha Rao, was presented at RISC-V Workshop, held at ETH Zurich, Switzerland during June 11- June 13.

Event link: <a href="https://tmt.knect365.com/risc-v-workshop-zurich/">https://tmt.knect365.com/risc-v-workshop-zurich/</a>

The poster titled "Fault Injection Framework to Study Soft Error Resilience of RISC-V Cores on FPGA" was presented by Jhalak Sharma (MS2018005) at RISC-V Workshop, held at ETH Zurich, Switzerland during June 11- June 13 (https://tmt.knect365.com/risc-v-workshop-zurich/speakers/jhalak-sharma)

The poster was co-authored by Prof. Subir K. Roy and Prof. Nanditha Rao. The key was to present the project idea in just 60 seconds. RISC-V is a free and open ISA developed in the University of California, Berkeley, enabling a new era of processor innovation through open standard collaboration. The event was organized by RISC-V Foundation. The sessions feature leading technology companies and research institutions discussing the RISC-V architecture, open-source implementations, software, security, simulation interfaces and much more.



Tripti Agarwal (MS2017009) presented a paper titled "**Topological Feature Search** in **Time-Varying Multifield Data**" in TopoInVis 2019 at Nykoping, Sweden held during June 17-19. The paper is co-authored by Prof. Amit Chattopadhyay.



May 9: Deepti J Anand (PH201305) Completed her Comprehensive Examination titled "A process framework to make software requirements compliant to regulations"

May 23: Arvind Upreti (PH2016011) Completed his State of the Art Seminar titled "Automation Of Tasks In Indian Information Technology Services Industry"

June 3: Praseeda (PH2016008) completed her State of the Art Seminar titled "Competency Modeling for Navigated Learning".

June 7: Abhilasha Aswal ((PH2009901) completed her thesis oral examination titled "Decision Making Under Uncertainty: Uncertainty Quantification And Relational Algebra Of Polytopes And Convex Uncertainty Sets: Applications To Supply Chains And Big Data".

June 11: Kumar D. (PH2013004) Completed his Oral Exam titled "Learning models for large storage systems".

June 12: Leny Thangiah (MS2015005) completed his Master of Science by Research thesis oral examination titled "Analytics Architecture Based On Edge Intelligence And Smart Agents For Industrial Iot Applications"

June 13: Sree Dharshni D (MS2016004) Completed her Oral Exam titled "Analog Front End For Ultrasound Imaging Systems"

June 13: S Hari Bhaskar (MS2016004) Completed his Oral Exam titled "Reference Architecture For Airline Passenger Satisfaction In Changing Big Data Paradigm"

June 14: Rajanikanth N Kashi (PH2011004) Completed his Oral Exam titled "Vermillion: Verifiable Multiagent Framework For Dependable And Adaptable Avionics"

June 15: Sita Kondamadugula (PH2010904) Completed her Oral Exam titled "Parameter Importance Based Methods For Variation Aware Analog Yield Optimization"

June 24: K. E. Manjunath (PH2014014) Completed his Open Seminar titled "Study of Multilingual Phone Recognition using Indian Languages"

# **Faculty**

The Center for Information Technology and Public Policy (CITAPP) has been invited to be one of 20 global institutional members on the Future Open Council of the Digital Future Society Think Tank, which operates under the aegis of Mobile World Capital Barcelona. CITAPP's presence on the Future Council has led to colleagues Balaji Parthasarathy, Amit Prakash, Janaki Srinivasan, and Sridhar Varadarajan being invited to serve on the Working Groups of the Think Tank. The Working Groups will generate thematic vision statements for 2030, for Governments and Industry, to create a more inclusive digital society aligned with the Millennium Development Goals.

Prof. Dinesh Babu J visited University of Lausanne, Switzerland for two months (6th May to 6th July 2019). During this period, as a Visiting Professor at the Faculty of Business and Economics (HEC), UNIL, he collaborated with Prof. Marianne Schmid Mast. Prof. Mast is credited to be one of the top 50 living psychologists. The purpose was to establish research collaborations with UNIL (and other institutions in Swiss), and also facilitate exchanges between UNIL and IIIT Bangalore.



Prof. Balaji Parthasarathy attended a workshop on "Equitable Growth: Public-Private Pathways toward closing the Digital Gap" hosted by the Think Tank of the Digital Future Society Programme, Mobile World Capital Barcelona. The workshop was held in Barcelona, Spain, from 27th-29th May.

Prof. Ramasubramanian was examiner of 2 Ph.D. theses from IIT-Madras (Dept. CSE and Dept. EE), held on July 4, 2019.

- 1. New Methods for Vocal Tract Analysis", M. K. Jayesh, Dept. of Electrical Engineering
- 2. Novel Methods for Time-Event Detection and Source Separation", Jilt Sebastian, Dept. CSE

Prof. Dinesh Babu J gave an invited talk titled "Investigating Multiple facets of communication skill assessment and feedback" at Idiap Research Institute, an AI

research lab affiliated to EPFL Lausanne, Switzerland on June 13.

Prof. Dinesh Babu J interacted with researchers with the Cognition Perception and Uses (CPU) research group, led by Prof. Jean-Claude Martin, at the LIMSI research institute, Paris Sud University on June 27, 28 to establish collaborations. The group specializes in Virtual Agents and Social Interaction generation, with participation from multiple computer scientists and psychologists.



June 25: "Computational Analysis of Infection Spread Through Air Travel" by Prof. Ashok Srinivasan, William Nystul Eminent Scholar Chair and Professor at the University of West Florida and a Fulbright Fellow

## **Visitors**

May 02: Dr. Vidyadhar Y Mudkavi, CSIR Fourth Paradigm

May 02: Dr. Kota Harinarayana, NAL, HAL

May 02: Mrs. Manimozhi Theodore, Director, CAIR, DRDO

May 03: Dr. Peter Hofstee, Mr. Ganesan Narayanasamy, IBM

May 07: Prof. G. Sivakumar, IIT, Bombay

May 07: Prof. Madhavan Mukund, CMI, Chennai

May 07: Prof. Rahul De, IIM, Bangalore

May 07: Prof. Rajat Moona, Director, IIT-Bhilai

May 07: Dr. A.S. Ramasastri, Director, IDRBT

May 07: Dr. S. Rashmi Dev, AGM, IDRBT

May 07: Team BEL

- 1. Mr. T Velayutham
- 2. Ms. Nidhi Jain
- 3. Ms. M Akila
- 4. Mr. Subbarao

May 09: The following delegation from British Deputy High Commission visited IIITB Innovation Center.

- Ms. Shoma Jamil, Department for Digital, Culture, Media & Sports, UK Government
- Ms. Louise Sheridan, Department for Digital, Culture, Media & Sports, UK Government
- Mr. James Godber, British Deputy High Commission, Bengaluru
- Mr. Richard Homer, British Deputy High Commission, Bengaluru
- Ms. Liz Atwell, British Deputy High Commission, New Delhi

May 10: Mr. Nagendra Sonawane, Vice President and Head, Information System, Infosys

May 10: Dr. Jerome Bove, Science Attache, Consulate General of France & Dr. Ambika Anilkumar, Scientific Co-ordinator, Consulate General of France

May 10: International Students, (FISA-B Team)

May 16: Prof. Arun K Pujari, Vice Chancellor, Central University of Rajasthan

May 17: Mr. Srinivas Rao, Founder Aujas

May 24: Mr. Ramesh Viswanathan & Ganesh Reddy, Havells India Ltd

May 24: Mr. Ashok Kumar Pradhan, MD and CEO, United Bank of India

May 27: Dr. Vittal Prabhu, Penn State

May 28: Mr. Ranganatham, PMI Bangalore India Chapter

June 04: Ms. Lauren Week, Fulbright-Nehru Research Fellow affiliated with the Indian School of Business, University of California, Berkeley, and University of Michigan.

June 04: Dr. Rajesh Ram Mishra, President, President at India Electronics and Semiconductor Association (IESA)

June 06: Mr. Neelam Barua, Automotive Electronics, Innovation and Start-ups visited IIITB Innovation Centre to meet with startups.

June 06: Dr. Gurucharan, Director, Public Affairs Centre (PAC)

June 14: Dr. Sriram Rajamani, Managing Director of Microsoft Research India and Dr. Praneeth Netrapalli, Microsoft Research India

June 25: Prof. Ashok Srinivasan, University of West Florida

June 25: Mr. Krishnan, Manager, Information Technology Infrastructure Division (ITID), Liquid Propulsion System Centre, ISRO.

June 27: Michelle Wade, Commissioner - South Asia at Global Vitoria, State Government of Victoria, Australia

June 27: Smt. Priyanka Mary Francis, IAS, Director ITBT



June 29: Dr. Karthick Sridhar, Vice Chairman, Indian Centre for Academic Rankings & Excellence Pvt. Ltd



## Campus Calendar for July-August 2019

July 07: 19th Convocation of IIITB

July 24: 69th Senate meeting

July 30: Joining of new batch of iMTech

July 30: Joining of Master of Science by Research and Ph.D Scholars

August 15: Celebration of Independence Day













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