Indian Statistical Institute
Directors Report
9th Meeting of the Council (2016-2018)
September 4, 2018

We Welcome to the Institute

- Applied Statistics Division
  - Dr. Abhik Ghosh
- Computer and Communication Sciences Division
  - Dr. Saurav Chakraborty
  - Dr. Arijit Ghosh
  - Dr. Malay Bhattacharyya
- Physics and Earth Sciences Division
  - Dr. Sankar Sarkar
- Social Science Division
  - Dr. Mridu Prabal Goswami

- Statistics and Mathematics Division
  - Dr. Partha Sarathi Chakraborty
  - Dr. Utsav Chaudhury
  - Dr. Samik Basu
  - Dr. Kingshook Biswas
  - Dr. Mathew Joseph
- Library
  - Chief Librarian: Dr. Kishor Satpathy
  - Deputy Librarian: Ms. Monali Paladhi

Honors/Achievements/Recognitions

- **Abhik Ghosh,** ASD, has received
  - Inst. of Mathematical Statistics New Researcher Travel Award
    - To attend Stochastic Processes & their Applications Meeting in Sweden June 2018.
  - International Biometric SocietyTravel Award
    - to attend the International Biometric Conference in Spain July 2018
- **Malay Bhattacharyya**, CCSD, has received
  - INAE Young Engineer award in Computer Science
    - Crowd sourcing
- Mandar Mitra, CCSD
  - ACM SIGIR Test of Time Award
- Prof. Abhirup Sarkar, SSD
  - appointed Non-Executive Chairman, Board of Directors, WB Financial Corporation
- Sanghamitra Bandyopadhyay, CCSD
  - appointed as one of the 9 permanent members of Prime Ministers' Science, Technology and Innovation Advisory Council (PM-STIAC)

Honors/Achievements/Recognitions

▸ Subhasis Banerjee, SRF, MIU, CCSD (Intel Student Ambassador)

  ▸ Intel fellowship of USD 2000 for getting selected at the MICCAI Challenge Workshop, towards competing in the final event

Important Results/Publications

- Jaydeb Sarkar, SMD, Bangalore
  - Isometric dilations and von Neumann inequality for a class of tuples in the polydisc
    - Transactions of the American Math Society

- B. S. Daya Sagar, CCSD, Bangalore
  - Along with Qiuming Cheng, and Frits Agterberg,
  - "Handbook of Mathematical Geosciences: Fifty Years of IAMG", Springer, p. 942, 2018.
  - officially launched on 8th September 2018 at the IAMG Golden Anniversary, Prague
  - Within a month of the open accessible release the number of downloads crossed 55,000.
  - https://link.springer.com/book/10.1007%2F978-3-319-78999-6

- Abhik Ghosh and Ayanendranath Basu, ASD, Kolkata
  - Robust Bounded Influence Tests for Independent but Non-Homogeneous Observations
    - Statistica Sinica, July 2018
  - A New Family of Divergences Originating from Model Adequacy Tests and Application to Robust Statistical Inference
    - IEEE Transactions on Information Theory, August 2018

Conference/Workshops

- Summer School for Women in Mathematics and Statistics-2018
  - 45 first year undergraduate science/engineering/arts students
  - Held at ICTS, Bangalore in May 2018
  - Led by: Anita Naolekar and Siva Athreya
- Symposium on Algorithms, Architectures and Applications: Special focus on Electronic Design Automation
  - ACMU June 7-8, 2018
- MATLAB Seminar on Deep Learning
  - Dr. Rishu Gupta, Senior Application Engineer - Computer Vision, Mathworks Inc., India
  - MIU, August 2018

Conference/Workshops

- Workshop on AI for Human Welfare and Knowledge Economy: Vision, Mission, and a Strategic Plan
  - August 1-2, 2018
  - Very well attended by participants from government, academia, industry
  - Series of lectures in core and applied areas of AI and Machine learning
  - It was a pleasure to attend the 2 day conference and I must say that it was very well organized and the quality and the diversity of speakers were great. Most importantly, the academic side of this theme was maintained throughout the conference and in the presentations of the speakers which is a true testimony to the fundamental ethos of ISI which is about research and academics.

    ….I would like to extend my commitment and support towards this center from me personally and on behalf of TCS.
  - My visit was purposeful in the context of MoD looking to enhance the AI content in defence systems. Look forward to following up on the plans and way ahead of ISI in setting up the centre on AI et al. (DRDO)
  - A clear indication emerged about the need for establishing a centre in ISI

Conference/Workshops

- BIRAC Outreach Programme
  - DBT and BMGF call for proposal
  - AI for Maternal and Child health

Visitors to ISI

▶ International Association for Mathematical Geosciences Distinguished Talk by Prof. Gregoire Mariethoz in SSIU, ISI Bangalore Centre.

  ▶ Data expansion: using analogues to improve remote sensing and climate datasets

  ▶ University of Lausanne, Switzerland, Institute of Earth Surface Dynamics

New Initiatives

- "ISI Data repository"
  - Proposal by Abhik Ghosh
  - to develop and share the important datasets available/produced in ISI
  - Abhik Ghosh, Malay Bhattachryya and Pabitra Banik are leading the effort

Projects/Consultancy

▶ Hitachi and ISI Bangalore develop HISIA

  ▸ Hitachi and ISI Analysis - Recent press release

  ▸ Load forecasting model

    □ Is too much data always good?

    □ to determine the type and amount of data necessary
      to achieve accurate forecasting

  ▸ October 2016-September 2017

  ▸ Amount – Rs. 20,70,000

  ▸ Question

  ▸ Led by - Mohan Delampady, Rituparna Sen, BV
    Rajarama Bhat, VR Padmawar and Soumen Dey (ISI)

STATISTICAL INDIAN INSTITUTE
UNITY IN DIVERSITY

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HITACHI
Inspire the Next

[CONFIDENTIAL DRAFT]
FOR IMMEDIATE RELEASE

Hitachi and the Indian Statistical Institute Bangalore develop
a theoretical method to determine useful clusters of data necessary
for efficient forecasting
Use case with electric load forecasting to be presented at the
10th IFAC Conference on Control of Power and Energy Systems

Projects/Consultancy

- ▸ Sushmita Mitra
  - ▸ "Deep learning for handling imbalance in Diabetic Retinopathy", 2018-19, U
  - ▸ SD 8030
- ▸ Amitava Bandyopadhyay
  - ▸ Training for Wipro
  - ▸ Rs. 25.0 Lakhs
- ▸ Ashis Sengupta and Prasun Das
  - ▸ Certification of BARC India's panel design for viewership measurement

THE ECONOMIC TIMES | Entertainment   LATEST NEWS 'Culture of adjournment

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Entertainment   Media

Business News › Industry › Media/Entertainment › Entertainment › Indian Statistical Institute certifies BARC India's panel design for vie

04:05 PM	31 AUG CLOSED MARKET STATS ▼	SENSEX 38,645 ▼ -45.03	NIFTY 50 11,680 ▲ 3.70	GOLD (MCX) (Rs/10g.) 30,143.00 ▼ -27.00	USD/INR 70.99 ▲ 0.25

NEWS FLASH   Gurgaon land deal probe: FIR filed against Robert Vadra, Ex Haryana CM Hooda

Indian Statistical Institute certifies BARC India's panel design for viewership measurement

By *Gaurav Laghate*, ET Bureau | May 15, 2018, 11.38 AM IST

0 Comments

The Indian Statistical Institute (ISI), Kolkata, has certified TV audience measurement agency BARC India's sampling methodology and panel design, the joint industry body said in a statement.

According to the ISI Kolkata report, the universe estimate used and the spatial coverage adopted by BARC India is reasonable and representative.

"ISI Kolkata's endorsement of our panel design and sampling methodology is yet another validation of our

Projects/Consultancy

▶ New Project on Automated Methods for Implementing Robust and Bio-Chemical Assays with Micro-fluidic Lab-on-Chip

  ▶ ACMU

  ▶ DST funded

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Visitors to the Institute

- Prof. Rolf Drechsler, Fellow IEEE, University of Bremen, Germany and Adjunct Professor

- Prof. Krishnendu Chakrabarty, Fellow IEEE and ACM, Duke U., USA

- Prof. Eric Andres, U. Poitiers, France

- Prof. Partha P. Chakrabarti, Director, IIT Kharagpur

- Dr. Tinku Acharya, CEO Videonetics

SYMPOSIUM ON FINANCIAL INCLUSION AND DIGITAL PAYMENT SYSTEM IN JHARKHAND JOINTLY ORGANIZED BY INDIAN STATISTICAL INSTITUTE (GIRIDIH) AND NABARD, JHARKHAND DATE: 3-4 OCTOBER 2018 VENUE: INDIAN STATISTICAL INSTITUTE GIRIDIH Objectives: □ To enable various stakeholders join in a common platform for discussion on various programmes, policies, approaches, methods, key challenges, progress and prospect about financial inclusion and digital payment system in Jharkhand. □ To develop new methods and approaches including leveraging new technology for financial inclusion. Themes: 1. Status of MFIs and financial inclusion (FI) in Jharkhand 2. Inclusive development through financial inclusion and role