## IISA FALL 2019 NEWSLETTER



#### Gateway of India, Photo courtesy: Somnath Datta

## 2019 IISA Conference

INDSTATS 2019: Innovations iN Data and Statistical Sciences

December 26-30, 2019

Venue: Victor Menezes Convention Center, IIT Bombay, Mumbai, India

www.intindstat.org/iisaconference2019/ IISA2019@intindstat.org

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### Message from Amit Bhattacharya, President of IISA



Dear IISA colleagues,

With the year 2019 coming towards the last few days, and we usher in the new year, this is the perfect time to reflect on our journey through the year and make plans for the next. So, with that in mind, I am happy to write this preface for the Fall/Winter Newsletter and briefly highlight about IISA's achievements and affairs throughout the year.

IISA leadership team and various committees have been working diligently to make this a viable professional society for the members. There had been progress in many fronts including planning or creating? I thought that is up? for a website, organizing workshops for junior IISA students and professionals, and other initiatives that you will hear more in 2020.

IISA had a great presence at JSM (Joint Statistical Meeting) at Denver this year, sponsoring and co-sponsoring 6 invited sessions and 11 topic-contributed/contributed sessions. We also co-sponsored NISS <u>NISS/ASA Writing Workshop</u>. It was great to see many of the members and friends in the IISA mixer.

The preparation for IISA 2019 conference (<u>https://www.intindstat.org/iisaconference2019/</u>) in Mumbai (26-30 Dec, 2019) is in its

final stretch. IISA is proud to host the annual international conference in the premises of IIT Bombay this year. Thanks to the tremendous focus and effort by the leaders and members of the Local Organizing committee, the Scientific Program Committee and the International Organizing committee over more than a year, IISA 2019 conference will have an impressive program ready for execution. I thank the organizers, various committee members, presenters and participants from various parts of the globe for their contribution to the conference.

The IISA India Chapter is working hard to register the local chapter with the Indian authorities. I am hoping that this registration will be complete soon. The senior leadership team is working around some of the bureaucratic hurdles. I thank them for their perseverance in moving along with this effort.

The IISA bylaws revision is in the final stage, and I am hoping that the membership will be able to vote on the revision of the bylaws soon so that we can implement the new bylaws in 2020.

Finally, it was a great honor and privilege to lead IISA this year. I see firsthand the effort of so many volunteers and dedicated members who are the backbone of the IISA organization and I learned more about the operations and the mission of IISA. I like to convey my personal thanks and appreciation to all of these volunteers. I also encourage junior members to come forward, and send an email to <u>Secretary@intindstat.org</u> and/or <u>president@intindstat.org</u> informing of their interest in a role in IISA.

See you at the IISA 2019 conference at Mumbai. I shall pass on the baton of IISA leadership to the 2020 President Prof. Sanjib Basu after the conference. Best wishes to all of you for a successful 2020.

Amit

Amit Bhattacharyya, PhD

President, IISA 2019

## Congratulate Our Award Winners!

#### **YOUNG STATISTICAL SCIENTIST AWARD WINNERS**

Theory and Methods: **Bodhisattva Sen**, Columbia University, NY, USA.

Applications: **Rituparna Sen**, ISI Chennai and **Suprateek Kundu**, Emory University, Atlanta, GA, USA.

Practice: **Yogita Gharde**, IASRI, Delhi, India and **Satrajit Roychowdhury**, Statistical Research and Data Science Center at Pfizer

#### YOUNG STATISTICAL SCIENTIST AWARD WINNERS

Dr. **Satrajit Roychoudhury** is being recognized for outstanding research contributions and leadership in promoting the role of statistical science in the pharmaceutical industry. His exceptional contributions to the applications of statistical methods helps the advancement of the treatment and care of patients.

Dr.**Yogita Gharde** is being recognized for her outstanding contributions in the applications of statistical methods to advance the knowledge in the weed science and to study crop-weed interaction through modelling approaches.

Dr. **Bodhisattva Sen** is being recognized for his fundamental contributions to the theory of bootstrap methods in non-standard problems, nonparametric inference under shape-constraints, and interdisciplinary work in astronomy and related areas.

Dr. **Suprateek Kundu** is being recognized for the development of statistical methods, analysis of multi-modal data, and validation of network models involved in neuroimaging and genetics using graphical techniques.

Dr. **Rituparna Sen** is being recognized for her outstanding contributions to the applications of statistical theory and methods in finance and for her initiative and leadership in research, teaching and mentoring in this area.











#### LIFETIME ACHIEVEMENT AWARD

Professor Kanti Mardia is being recognized for his many path-breaking contributions to statistical science, including seminal contributions to shape analysis, spatial statistics, multivariate analysis, directional data analysis and bioinformatics with special applications to geostatistics, image analysis and protein structure; his lasting leadership role in interdisciplinary research, the establishment and running of high profile annual research workshops, his pioneering research monographs, and for creating a critical mass of next generation statisticians.



Short Biography: Kanti Mardia was born in 1935 in India and obtained his PhD degrees in University of Rajasthan (1965) and University of Newcastle (1967). He was appointed a Chair Professor in Applied Statistics at the University of Leeds in 1973, and subsequently its Head. Upon his retirement, the University of Leeds created a special Senior Research Professorship position for him. He has been a Visiting Professor to Oxford University since 2013 and is the Leverhulme Emeritus Fellows since 2018.

He is the founding Vice-President of IISA, helped draft the initial Constitution with founding President Jayant Srivastava, and is a life member. His pioneering research work in multivariate statistics, directional and shape data analysis, culminating in some very influential research monographs, has led to the development of important data analytic tools across several disciplines, including bioinformatics, imaging and geosciences.

In recognition of his scholarly work, and his influence on statistics community, he was awarded Guy Medal in Silver in 2003 by the Royal Statistical Society, and the Wilks Memorial Medal by the ASA in 2013. He is an Elected a Fellow of the Institute of Mathematical Statistics (1978), the International Statistical Institute (1974), Fellow of the Royal Statistical Society (1964), Senior Member of IEEE (1995), and Elected Fellow of the ASA (1977).

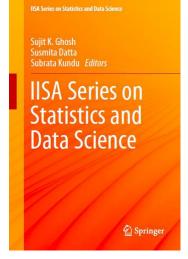
#### IISA Series on Statistics and Data Science Publish your next book in this series!

#### Series Editors

- Dr. Sujit K. Ghosh Department of Statistics, NC State University, Raleigh, USA
- Dr. Susmita Datta
   Department of Biostatistics, College of Public Health & Health
   Professions, College of Medicine, University of Florida, Gainesville,
   USA
- Dr. Subrata Kundu
   Department of Statistics, George Washington University, Washington D.C., USA

#### Aims and Scope

Aims and Scope: The book series is aimed at promoting the emerging



research and case studies in the discipline of statistical science and cutting-edge computational data analytics by publishing books on theoretical foundations, computational techniques, methods, models and their applications. In addition to methodological research, the series will also include volumes on case studies that illustrate novel methods with applications to allied sciences including but not limited to biological, biomedical, epidemiological, engineering, finance, statistical learning and artificial intelligence. The books published within this series will be of interest not only to statisticians and researchers in academia but also to practitioners in industries and government institutions.

The series will encompass theoretical aspects of statistical methods, as well as innovative applications and their properties in the context of big data analytics, and data science, in general. The scope of the series will be broad based such that it can be used as a reference book of various topics of statistical instructions and advanced research monographs. A few volumes of this series will include articles presented by eminent researchers and practitioners at the annual conferences of the International Indian Statistical Association and will also include articles that provides comprehensive overview of some of the emerging and changing foci of statistical sciences and data analytics.

Submit your proposal for a new monograph or contributed volume in this series

Contact Your Publishing Team:

- Sagarika Ghosh: <u>sagarika.ghosh@springer.com</u>
- Nupoor Singh: <u>nupoor.singh@springer.com</u>

Visit the series homepage on springer.com https://www.springer.com/series/16210

## Call for submission of articles for IISA's new book series on Statistics and Data Science

#### Dear all,

The International India Statistical Association (IISA), in collaboration with Springer Nature, is initiating a new book series on Statistics and Data Science, <u>https://www.springer.com/series/16210</u>.

We want your contribution to make this book series a big success. We would like to take this opportunity to call for submission on our first series. Please fill out this google link <u>https://goo.gl/forms/C3mB33bbUV8pSyUN2</u> to submit your paper.

It will be peer reviewed and submission does not guarantee an invitation to write a chapter.

The first volume of this series will be edited by Professor Ansu Chatterjee of the University of Minnesota and is tentatively titled "High Dimensional Data Science". This proposed first volume will contain chapters on different aspects of Data Science, including on (i) high-dimensional statistical modeling, regularization, and related areas (ii) Bayesian high-dimensional models and computing, (iii) spatio-temporal and other dependent data, non-regular problems, constrained optimization and related areas, and (iv) artificial intelligence, deep learning and machine learning approaches, and other areas.

This edited volume is designed to be the first truly ``Data Science'' text, where multiple aspects of Statistics, Machine Learning, Artificial Intelligence, Big Data methodology, High-dimensional techniques and algorithms, and applications and case studies are presented together in one volume. A call for contribution will be made to IISA members.

One of the aims of this book to make this successful to the graduate students who want to specialize eventually on some aspect of Data Science, to beginners as well as advanced researchers in the field of Data Science. It is also expected that this book will be considered as a handy reference for understanding various aspects of Data Science and will hence be considered an important component of personal and institutional libraries.

The chapters will be peer reviewed and rigorous standard maintained, and the authors will be invited to include additional materials, for example, on the details of mathematical proofs, algorithmic instructions and detailed expositions on performances of various algorithms on simulated and real datasets, on publicly available archival domains. In addition, authors will be invited to share their computer codes and datasets. For more information on book series, please refer <a href="https://www.intindstat.org/book-series">https://www.intindstat.org/book-series</a>

At present, there is no book in the market, that competes with this proposed volume in terms of its breadth, and theoretical and methodological scope. Consequently, we expect the first IISA-Springer volume to be a success.

Thank you all,

Amit Bhattacharyya

(On Behalf of Book Series committee)

#### Prof. C. R. Rao in his centenary year 2019-2020

On behalf of the IISA community, we all congratulate the respected Prof. C. R. Rao on his centenary year. There have been celebratory conferences dedicated to this cause from the Indian Academy of Sciences.

The upcoming 2019 IISA Conference in Mumbai has also organized a session dedicated to celebrate Dr. Prof contribution and research. This session, titled *C R Rao Honorary Session*, is organized by Prof. **Tapan Nayak**, and the participants are Prof. **Ravindra Khattree** 

(Oakland University), Prof. **Anil Bera** (University of Illinois at Urbana-Champaign), Prof. **Debasis Kundu** (IIT Kanpur) and Dr. **Shailaja Suryawanshi** (Merck).

#### Congratulations to Prof. Nandini Kannan for being an AAAS Fellow

The IISA community is proud that one of its distinguished members, and a current member of Board of Trustee, Prof. Nandini Kannan, has been honored by the American Association for the Advancement of Science (AAAS) with a lifetime distinction of AAAS Fellow, in recognition of her invaluable contributions to science and technology. She was among the 6 in the field of Statistics who were honored by AAAS in 2019.

Fellows are elected each year by their peers serving on the Council of AAAS, the organization's member-run governing body. The 443 newly elected Fellows represent each of AAAS's 24





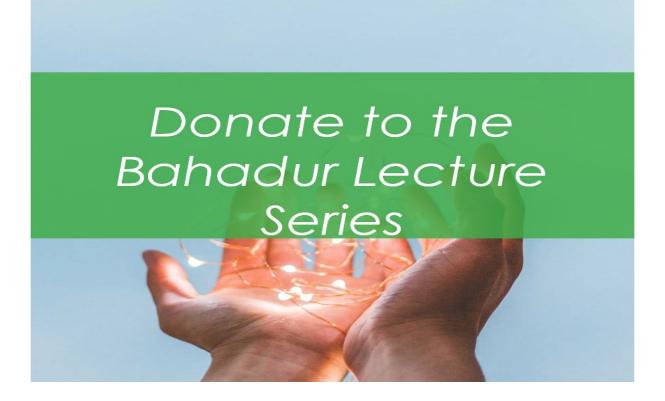
sections, from neuroscience and psychology to social, economic and political sciences. The honor recognizes diverse accomplishments, including pioneering research, leadership within a given field, teaching and mentoring, fostering collaborations and advancing public understanding of science.

The 2019 group will receive official certificates and rosette pins in gold and blue, colors symbolizing science and engineering, in a ceremony on Feb. 15, 2020, during the AAAS Annual Meeting in Seattle, Washington, USA.

#### **New Lifetime Members**

- Chakraborty, Sounak, Associate Professor, Statistics, University of Missouri-Columbia
- Bagchi, Pramita, Assistant Professor, Statistics, George Mason University
- Chatterjee, Sabyasachi, Assistant Professor, Statistics, University of Illinois at Urbana-Champaign
- Sen, Arusharka, Associate Professor, Department of Mathematics and Statistics, Concordia University
- Mazumdar, Sati, Retired Emeritus Professor, Department of Biostatistics, University of Pittsburgh
- Dasgupta, Nairanjana, Professor, Math and Stat, Washington State University
- Bhattachary, Rianka, Senior Research Statistician, Data and Statistical Sciences, Abbvie, Inc.
- Mondal, Shoubhik, Principal Biostatistician, Bio-statistics and data science, Boehringer Ingelheim
- Grandhi, Anjana, Associate Principal Scientist, Biostatistics, Biostatistics and Research Decision Sciences, Merck & Co.
- Dey, Jyotirmoy, Director of Statistics, AbbVie Inc.
- Garg, Renu, Department of Statistics, University of Delhi
- Jin, Zhezhen, Department of Biostatistics, Columbia University.
- Your name here ...

To become a lifetime member, please go to <u>http://www.intindstat.org/membership</u>



Hira Koul appeals to you on behalf of the IISA Fundraising Committee to donate for establishing a series of Bahadur Lectures at every IISA meeting, in the spirit of the Wald Lectures at IMS conferences. The invited person would give 1-3 lectures on a current topic.

This year, Prof. Arup Bose, Indian Statistical Institute, Kolkata will deliver the Bahadur Lecture in IISA 2019. The inaugural Bahadur Lecture was delivered by Prof. Jayaram Sethuraman in 2017, followed by Prof. Alexandre Belloni, who delivered the 2nd Bahadur Lecture during IISA 2018 in Florida. We appeal to you to help the IISA to keep this series running by donating to the cause. Any amount helps!

You can send your check made out to IISA (please mention the purpose) to:

Prof. Subrata Kundu, Treasurer, IISA Department of Statistics George Washington University Washington, DC 20052

## Member News

- Dr. Nandini Kannan is the new Executive Director of the Indo-U.S. Science & Technology Forum (IUSSTF), a bilateral, autonomous organization jointly funded by the Indian and United States governments to "promote Science, Technology, Engineering and Innovation through substantive interaction among government, academia and industry." She brings leadership experience in academia and government, an understanding of the critical role that science and technology play in this global inter-connected society, and a deep commitment to education and workforce development.
- 2. Dr. **Chaitra H. Nagaraja**, Associate Professor at Fordham University, recently published, *Measuring Society*. This book is part of the ASA-CRC Series on Statistical Reasoning in Science and Society. It focuses on the history and calculation of official statistics, including unemployment, poverty, and inequality. <u>https://www.crcpress.com/Measuring-Society/Nagaraja/p/book/9781138035980</u>



3. Dr. Azizur Rahman has been promoted from Senior Lecturer to Associate Professor

(Academic Level D) at the Charles Sturt University (CSU). Dr. **Azizur Rahman** has also received the Charles Sturt RED Achievement Award 2019.

Associate Professor Azizur Rahman and "Statistics & Data Mining Research" group that he is leading have successfully organized the 2nd Applied Statistics and Policy Analysis Conference 2019 (ASPAC2019) on 05 -06 September, The Convention Centre, Charles Sturt University, Wagga Wagga, Australia.



#### **Upcoming Conferences and Workshops**

- 2019 IISA Conference
  - INDSTATS 2019: Innovations iN Data and Statistical Sciences
  - December 26-30, 2019
  - Venue: IIT Bombay, Mumbai, India
  - http://www.intindstat.org/IISA2019
  - Email: IISA2019@intindstat.org
- December 21 -23, 2019: The Indian Society for Probability and Statistics is holding its annual meeting at Bhubaneswar, Odisha and will be presenting the first Jayaram Sethuraman Gold Medal for the best paper at the conference this year. It is planned to do this annually at their meetings. Here is a link to the

conference: http://admin.isps.org.in/Files/ISPS%20CONFERENCE%202019\_06112019200832.pdf

• January 6-8, 2020: ICHPS in San Diego: Registration and housing now open! Registration and housing for the 13th International Conference on Health Policy Statistics, to be held at the Wyndham San Diego Bayside Hotel in San Diego, California, is open! A limited number of rooms at the Wyndham are available at a negotiated group rate.

ICHPS (<u>https://ww2.amstat.org/meetings/ichps/2020/</u>) is a leading forum for discussing research needs and solutions to the methodological challenges in the design of studies and analysis of data for health policy research. This biennial conference is sponsored by the American Statistical Association's Health Policy Statistics Section.

• December 16-20, 2019: A winter school on Graph and Random Processes would be conducted in IISER Pune which would be supported by Indo-French Centre for Applied Mathematics (IFCAM). There will be three mini-courses and eleven research-level talks on related topics. Interested members are requested to visit https://sites.google.com/view/randomiiser/home for registration.

- December 20-22, 2019: The 11th ICSA International Conference, which will be held at Zhejiang University, Hangzhou, Zhejiang, China. Organizing committee Chair: Hongzhe Li (hongzhe@pennmedicine.upenn.edu)
- December 16 21, 2019: The fifth conference and workshop on Statistical Methods in Finance will be held at the Chennai Mathematical Institute, Chennai, India. The conference is jointly organized by ISI Chennai and CMI with support from ISBIS. Confirmed plenary speakers are Kose John, NYU and Richard Davis, Columbia. There will be a panel discussion on Financial Analytics in the Blockchain Era and a 3-day workshop on Data Science in Finance. To be considered for contributed oral presentation, full paper should be submitted by Sep 30, 2019. Mail your paper at statfin@cmi.ac.in Further details are available on the webpage <a href="http://statfin.cmi.ac.in/2019/">http://statfin.cmi.ac.in/2019/</a>
- December 12-15, 2019: The 11th International Conference on Multiple Comparison Procedures. Location: National Taiwan University, Taipei, Conference Website: <u>http://www.mcp-conference.org</u> Organizer: Multiple Comparison Procedures Society in association with the International Indian Statistical Association (IISA), Contact: <u>mcp2019@mcp-conference.org</u>



HTTPS://R-IISA2019.RBIND.IO/



See you next year at the windy city! **2020 IISA Conference** Statistics in the Era of Evidence Based Inference July 16-19, 2020 University of Illinois at Chicago



- Nilanjan Chatterjee
- Xihong Lin
  Konnon Notor
- Kannan Natarajan

Invited SessionsPanels

- Student Paper Competition
- Young Statistical Scientist Awards

### Short Courses

# Invited Session Proposal Submission: Feb 1- 29, 2020 Early Bird Registration Deadline: April 15, 2020

Website: iisa2020.iisaconference.org

Email: iisa2020@intindstat.org