IISA Newsletter
Spring 2017

Hyderabad International Convention Centre

Take the IISA Survey!

YOUR STORY HERE

The IISA Membership Committee has developed a survey so we can enhance our service to you, our members. As statisticians, we all know the quality of our data depends, in part, on reducing nonresponse. Please take the online survey by April 15th. Thank you! Link to survey: *https://www.surveymonkey.com/r/833LFYL*

Update Your Contact Information

We have a new feature on our website which allows you to update your contact information and affiliation. Please visit *www.intindstat.org/update-contact*

Contribute to the News!

YOUR STORY HERE

Please submit items of interest to *newsletter@intindstat.org*

Message from Sujit K. Ghosh, President of IISA

Dear Members of IISA (Bandhugan!):

It is with great pleasure I'd like to welcome YOU (members of the IISA community) to join me in my journey as I begin my new role as the President of IISA for the calendar year 2017. I'd like to express my gratitude for giving me an opportunity to serve in this role and I look forward to working with you by maintaining steady communications via the newsletters and other media outlets.

2017: A Year of Celebration

Year 2017 is really a very special year for IISA and Indian Statistics. This is the 25th year since IISA was established in 1993 and the first newsletter appeared in November 18, 1993 (see "History of IISA" available online: http://www.intindstat. org/history). We are grateful to Prof. Kanti Mardia for providing us the artifacts featured on the IISA website and also for an informative article that he contributed in our previous newsletter. This is also the 125th year since the legendary Professor P. C. Mahalanobis, the founder of the Indian Statistical Institute, was born. He was also known simply as "Professor." Those of you, especially the younger generation, may want to read the inspiring article about the "Professor" written by another living legend, Professor C. R. Rao, which appeared in Biographical Memories of Fellows of the Royal Society in 1973 (*http://rsbm.royalsocietypublishing. org/content/19/454*).

Sujit Ghosh, IISA President

Thus, we are looking for big celebrations this year and I welcome members of the IISA community to get engaged with many of the upcoming events that IISA is planning to host, co-sponsor and celebrate. Please contact our new secretary, Soutir Bandyopadhyay (*secretary@iisa.org*), if you'd like to organize an event, workshop, conference, or related activities celebrating the 25th year of IISA or the 125th year of the "Professor." If you'd like IISA to co-sponsor a workshop, please use the proposal template (available at *http://www.intindstat.org/ pdfs/IISA-CoSponsorship-RequestProposal.pdf*) to submit your request at least 3 to 6 months prior to

the event.

Learning from Past ("The Prior")

As a statistician who has used Bayesian methods for many projects, I thought what could be more informative than to learn from the past. Over the last several months, I have been closely working with the members of the Executive Board (EB) of IISA and this has helped us to have a smooth transition of presidents. Through our regular monthly meetings, I came to know about the great dedication of the members of the EB who have been working tirelessly and voluntarily for improving the visibility of IISA outreach and activities. In particular, I'd like to acknowledge the excellent work of the past president Amarjot Kaur, who has been instrumental in expanding IISA's outreach beyond academia and I hope to continue that momentum. Thanks Amarjot!

As we celebrate our silver jubilee year, this newsletter includes a list of all past IISA presidents and I'd like to thank all of my predecessors who have greatly helped in shaping the role of IISA, promoting its activities and increasing awareness of statistical methods in various areas of applications.

Sampling the Present ("The Likelihood")

We had a very productive year in 2016 with many activities, some of which were discussed in previous newsletters. We also had challenges that we encountered when the publisher of IISA's official journal (*Statistical Methodology*) decided to discontinue publication. In my letter, I'd like to highlight a few events, taking a sample of some of IISA's activities in the past year.

IISA has recently co-sponsored three workshops: (i) Statistical Methods in Finance Conference which was held at the Chennai Mathematical Institute on Dec. 18-22, 2016, (ii) the International Workshop on Clinical Data Analysis (WCDA) which was held at Indian Institute of Public Health (IIPH) in Hyderabad on Dec. 23rd, 2017 and (iii) the One-Day Workshop on Biostatistics at the Modern College of Arts, Science and Commerce (MCASC) in Pune on Dec.

Message from the President - continued

31st, 2016. These focused, regional workshops have provided a friendly atmosphere for sharing ideas and collaborating. Registration fees to these events were reduced for IISA members. It was particularly gratifying to see numerous students and early career researchers from both academia and industry, mostly from India, participate in the workshops. The students had the opportunity to interact directly with eminent statisticians and to learn how statistics is actually practiced in finance, clinical and biomedical settings and allied areas of science. Further details of each of these workshops appear later in this newsletter.

A committee consisting of members of the EB (co-chaired by past president Soumen Lahiri and president elect Somnath Datta) is currently working with publishers to launch a new official journal of IISA and it is envisioned that such a new journal will have a significant focus on the emerging area of "Data Science." It is anticipated that this journal will be launched shortly, once all the necessary logistics and negotiations are in place. Further details of the new IISA official journal will be communicated in an upcoming newsletter. I'd encourage members to let us know your thoughts and ideas, by contacting the co-chairs or me at *president@intindstat.org*.

"Training programs and workshop in Data Science are immensely important in developing countries"

IISA will be hosting its annual conference in the state-of-the-art Hyderabad International Convention Center (HICC) located in the Hi-Tech city of Hyderabad on December 28-30, 2017. The conference website will soon have further details on the proposed and planned activities. Pre-conference workshops and short courses will be held on the 26th and 27th of December and will be co-sponsored by IISA. So, please mark these dates on your calendar as we expect to have a grand celebration in the gorgeous city of Hyderabad, India. I'm very pleased to let you know that Dr. Vishwanath (Mahesh) Iyer (Novartis, Hyderabad) is leading the local organization efforts as the chair of the Local Program Committee while Drs. Snigdhansu (Ansu) Chatterjee (University of Minnesota) and Isha Dewan (Indian Statistical Institute, Delhi) are the co-chairs of the Scientific Program Committee. Many thanks to Mahesh, Ansu and Isha for their kind efforts, generosity and leadership which I am sure will make the IISA annual conference a memorable one! If you would like to organize an event (e.g., invited session, panel, short course etc.), please contact one of these committee chairs and you can also submit your session proposals online via the conference website: *http://www.intindstat.org/IISA2017*.

Last but not least, I request you to kindly complete the membership information survey that you have received recently by April 15th. This survey will provide the EB necessary information about the current state of IISA and hence improve on aspects that may be lacking in our current efforts. I'd like to thank the entire survey questionnaire team, led by Soumi Lahiri (at GSK), for their hard work on this very important activity.

Given the limited space, I have not included in my sample many other exciting news and articles that you will find in this newsletter (e.g., articles by the presidents of ASA), members news, additional upcoming events and an obituary. Please take your time to read these news items and let us know your feedback.

Expectations for Future ("The Posterior")

Learning from the past (the "prior") and sampling from the present (the "likelihood") it is natural (via Bayes theorem) to set expectations for the future of IISA. In the era of Data Science and Analytics, it has become crucial to understand the role of Statistics in various areas of applications from Astronomy, Biology, Cybersecurity, Decision Making, Environmental Science, Finance, Geoscience, Health,…, to Zoology. Therefore, it is prudent that we involve various branches of science and their respective professional societies in our statistical community by organizing high-quality conferences and workshops. This will also help increase our membership both in India and in the United States and perhaps beyond these two countries. So I hereby request current members of IISA to promote statistics by organizing future conferences and workshops, which in turn will expand our professional network. Training programs and workshop in Data Science are immensely important in developing countries (especially in India) where there is a well-known shortage of professionals with advanced statistics skills.

I have personally come to know about various organizations and institutes in India who are looking to collaborate with statisticians to make policy decisions. Recently, I have interacted with a few members of the "The Energy Research Institute (TERI)" and also the Indian Institute of Public Health (IIPH) who have been working on identifying and quantifying the environmental health effects of various pollutants (e.g., PM, Ozone, etc.). In

Message from the President - continued

particular, the international standards used by the WHO and in other developed countries (e.g., U.S. or UK) are not necessarily applicable to Indian settings and standards. Hence, more detailed and focused studies and subsequent statistical analyses are warranted.

I would like to draw your attention to a new event we would like to start: the Bahadur Lecture Series in honor of the late statistician R.R. Bahadur. These lectures would be held at our IISA conferences, featuring talks by our accomplished colleagues. Hira Koul, from Michigan State University, has written more about this proposed lecture series in this newsletter; Subrata Kundu, from George Washington University who is the IISA Treasurer, is collecting the donations for this series. Please donate to this worthy cause! (Thank you in advance.) We are hoping to have the first set of lectures at our IISA conference in Hyderabad this December.

I also hereby request each IISA member to volunteer their time and their knowledge by getting to know scientists working at various institutions in India and abroad (e.g., TERI, IIPH etc.). You can do so by attending some of the upcoming IISA sponsored workshops or, even better, organizing workshops and training modules which can perhaps be delivered by online media (Webex, Skype, etc.) to a wider audience. If you are interested in collaborating with scientists in India or if you are aware of scientists in India who are in need of statistical expertise, please let me (or our secretary, Soutir at *secretary@intindstat.org*) know about your thoughts and I promise that you will hear back from us!

Best wishes for the New Year,
Sujit Ghosh (President, IISA)

A Hearty Thanks to Past IISA Presidents!
By Subrata Kundu, George Washington University

Year	President	India Chapter President
1994-1995	Tryambkeshwar Dhar Dwivedi	
1995-1997	Jagdish N. Srivastava	
1997-1999	Sri Gopal Mohanty	Jayant V. Deshpande
1999-2001	Narahari U. Prabhu	Jayant V. Deshpande
2001-2002	Kirti R. Shah	S. P. Mukherjee
2002-2003	Kirti R. Shah	S. P. Mukherjee
2003-2004	Dipak K. Dey	S. P. Mukherjee
2004-2005	N. Balakrishnan	Ashis Sengupta
2005-2006	Hira L. Koul	Ashis Sengupta
2006-2007	Sreenivasa Rao Jammalamadaka	Ashis Sengupta
2007-2008	Malay Ghosh	Ashis Sengupta
2008-2009	Subir Ghosh	Ashis Sengupta
2009-2010	Ram Tiwari	Ashis Sengupta
2010-2011	H.N. Nagaraja	M. B. Rajarshi
2011-2012	Nandini Kannan	M. B. Rajarshi
2013	Cyrus Mehta	M. B. Rajarshi
2014	N. Rao Chaganty	M. B. Rajarshi
2015	Soumen N. Lahiri	M. B. Rajarshi
2016	Amarjot Kaur	Ayanendranath Basu
2017	Sujit K. Ghosh	Ayanendranath Basu

Starting a Bahadur Lecture Series
By Hira Koul, Michigan State University

R.R. Bahadur

Raghu Raj Bahadur was born on April 30, 1924 in Delhi, India. After completing his undergraduate education at the University of Delhi, he secured his Ph.D. in statistics from the University of North Carolina, Chapel Hill in 1950, under the guidance of Herbert Robbins. In the 1950s he served as a Professor at ISI, Calcutta, and from 1961 onwards, he was a Professor of Statistics at the University of Chicago, where he passed away on July 7, 1997, at the age of 73. He was the 1974 Wald Lecturer of the IMS, and served as the President of the IMS in 1974-75. He was an excellent lecturer.

Bahadur made several foundational and seminal contributions to statistics. His papers were extremely well written and transparent. His 1964 paper on "On Fisher's bound for asymptotic variances" (*Ann. Math. Stat.*) provides an elegant proof of the fact that in the absence of regularity conditions the Fisher information bound for the asymptotic variance of the CAN estimate of a parameter may be violated on a set of parameter values having Lebesgue measure zero. In connection with his work on Bahadur efficiency, he developed an in depth large deviation analysis of the log-likelihood ratio statistic. One of his most cited papers is the paper bearing the title "A note on quantiles in large samples" in *Ann. Math. Statist.* 37, 577-580, 1966, where he obtained an almost sure first order approximation for the sample quantile. This work was later refined by Jayant Ghosh and Jack Kiefer and has come to be known as the Bahadur-Ghosh-Kiefer representation. Bahadur's work with T.W. Anderson on solving binary classification problems with applications to statistical classification and engineering is known as the Anderson-Bahadur algorithm.

IISA is contemplating on starting a Bahadur Lecture Series consisting of two to three lectures at its bi-annual meetings. To establish this lecture series, IISA needs $10,000. In connection with this, a fundraising campaign was launched in 2016. We are grateful to donors who have donated a total of $4,701 to date.

We appeal to the general IISA membership again to kindly contribute to this worthy cause. The sooner you donate to this cause, the sooner we will have this lecture series instituted. It would be ideal if the first Bahadur Lecture Series could be held at the upcoming meeting in 2017 December at Hyderabad, India.

You may donate either by visiting the IISA website (see donation link on the left) OR by writing a check made out to IISA to the following address:

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

Upon making a donation, please be sure to inform Subrata Kundu at *kundu98@gmail.com* about the cause you are donating to.

Thanks, Sowmya Rao!

The IISA Executive Board would like to thank Sowmya Rao for her dedicated and enthusiastic service to IISA. Rao works at part-time at Boston University in the Department of Surgery and is also an independent consultant. Furthermore, among the many hats she wears, Rao has been involved

Sowmya Rao at the 2015 IISA conference in Pune.

with Statistics Without Borders, an organization of statisticians who volunteer their time and expertise, especially on international health projects.

Past IISA President, Cyrus Mehta, co-founder of Cytel, brought Rao on board as Secretary and Newsletter Editor in 2013. While she stepped down as Secretary at the start of this year, she still helped put together the newsletter you are reading right now. In addition to her official role, she has always helped plan IISA events at JSM and IISA conferences. Thank you very much for your contributions, Sowmya! We have all enjoyed working with you over the past few years.

Statistical Methods in Finance Conference 2016

Participants at the Statistical Methods in Finance Conference in Chennai, India.

IISA was a co-sponsor of the Statistical Methods in Finance Conference, which took place at the Chennai Mathematical Institute (CMI) during December 18-22nd, 2016. Fifty-five participants from India, UK, USA, and China attended the conference and workshop, which was jointly hosted by CMI and the Indian Statistical Institute (ISI), Chennai. The organizing committee members were Diganta Mukerjee from ISI, Kolkata; Indranil Sengupta from North Dakota State University; Rituparna Sen from ISI, Chennai; and Sourish Das, from CMI.

The plenary speakers were Rama Cont from Imperial College, London; Mrinal Ghosh from ISI, Bangalore; and Subrata Sarkar from the Indira Gandhi Institute of Development Research. Sourish Das conducted the workshop on "Financial Statistics with R" which was open to the conference attendees and local MS students from Chennai.

There was also a poster competition with 21 submissions, 18 of whom were PhD students. We would like to congratulate the winners: **Shantanu** **Dutta** from Tezpur University and **Sri Ranganath C.G.** from Cochin University of Science and Technology. **Kiran Sharma** from JNU, **Pratap Chandra Pati** from IIT Kharagpur, and **Sudip Ratan Chandra** from Jadavpur University received honorable mentions. The winners were chosen by a panel of judges: B.V. Rao from CMI, Anirban Chakrabarti from Jawaharlal Nehru University (JNU), and Anindya Goswami from the Indian Institute of Science Education and Research, Pune.

International Workshop on Clinical Data Analysis (WCDA 2016)

Organizers and speakers at WCDA (from left to right): Sujit K. Ghosh, Gunasekaran Manogaran, N. Rao Chaganty, Souvik Bandyopadhyay, Rajani Kanth Vangala, Meghana Aurur, Viswanath (Mahesh) Iyer, Saumyadipta Pyne (not pictured: Ramesh Hariharan).

The Indian Institute of Public Health (IIPH) Hyderabad organized the International Workshop on Clinical Data Analysis which was held on December 23rd. IISA was a co-sponsor. The workshop had thirty attendees from all across India with a few participants from the USA. Saumyadipta Pyne and Meghana V. Aruru, both from IIPH Hyderabad, handled the local arrangements.

The purpose of the workshop was to discuss technical aspects of clinical data analytics and how to manage resource constraints that arise during research projects. N. Rao Chaganty from Old Dominion University gave the first plenary talk on advances in longitudinal analyses useful for health and clinical data. Ramesh Hariharan from Strand Life Sciences, Bengaluru and Vishwanath (Mahesh) Iyer (IISA's India Chapter VP) from Novartis spoke more generally about analytics in clinical research. Sujit Ghosh (current IISA President) from North Carolina State University gave a technical presentation on computing sample sizes for clinical trials using a Bayesian approach. Both Souvik Bandyopadhyay from IIPH and Gunasekaran Manogaran from VIT Vellore gave tutorials on functional data analysis and modeling disease dynamics respectively. Meghana V. Aruru and Saumyadipta Pyne gave special talks on ethics and decision making in clinical research. The day ended with a panel discussion between Rajani Kanth Vangala of the Thrombosis Research Institute in Bengaluru and Vishwanath (Mahesh) Iyer which focused on "opportunities and challenges for clinical data analytics."

WCDA Organizers Saumyadipta Pyne (left) and Meghana Aruru.

One-Day Workshop on Biostatistics

Participants at the One-Day Workshop on Biostatistics in Pune, India.

On the last day of 2016, IISA sponsored a workshop on Biostatistics at the Modern College of Arts, Science and Commerce (MCASC) in Pune, India. Cytel and the Department of Statistics at MSCASC organized the conference, hosting more than 80 participants from many parts of India. Amitava Mukhopadhyay and Nand Kishore Rawat, both from Cytel, coordinated the conference preparations.

Debashis Mondal from Oregon State University, Vidyadhar Phadke and Anil P. Gore from Cytel were the principal speakers. There was also a panel discussion on employment opportunities in biostatistics. The panelists were Poornima Dhobe from Zeeta Analytics, Chitra Lele from Sciformix, Debashis Mondal, Amitava Mukhopadhyay, and Nitin Pawar from inVentiv Health. Anil P. Gore was the moderator of the panel.

During the workshop the issue of how best to educate the next generation of statisticians in India was explored. Mondal advocated that students (both at the undergraduate and graduate levels) should be involved in research to complement their coursework. Gore noted this as well in his presentation on the history of statistics education in India. His main contention was that students do not get the opportunity to work on "live problems" in statistics, which is a weakness of statistics degree programs in India. These observations developed into a discussion of the need for more research funding to increase the number of students involved in research. One participant noted that a market survey of solar cooker customers conducted by statistics students at MCASC, supervised by Vidya Prayag, was an example of a practical project requiring limited funds. It was suggested that, with some creativity, it may be possible to offer more research opportunities to students without relying on outside grants.

During the panel discussion, Lele compared the training for MS statisticians in India versus abroad. She spoke about projects where Western firms outsource statistical analysis to India. She noted that statisticians should be trained to have more domain specific knowledge (i.e., data should not be thought of as just numbers) and that statistics should not be conducted in a "mechanical manner." Statisticians with such weaknesses may not be able to contribute to "new insights" in both the field of study and statistical methodology. Continuing in this vein, Mondal advocated industry-academic collaboration; this could be a way to encourage a research mindset in students. On the job hunt side, Dhobe advised students on CV writing and how to look professional at an interview (from email writing to clothing choice); Mukhopadhyay continued this topic by advising students to take stock of their strengths and weaknesses and try to "fill in the gaps" to reduce those weaknesses. Given that scientific research is becoming more team-based, Pawar, "emphasized that one must learn to be a team player and not a lone ranger."

Twenty-four attendees submitted posters on the theme of biostatistics, with an emphasis on applications. **Mahesh Gore** from MCASC was the winner for his work on statistics and psychology. The first runner-up project on multivariate hazard analysis of child mortality using NFHS-3 data went to **Neeraja Iyer** and **Helen Gracy** from S.D.N.B. Vaishnav College for Women. The second runner-up submission focused on statistics in cosmetics and was by **Milan Sutar**, **Samadhan Ghubade**, and **Meenakshi Mahanta** from Cytel, Pune. Congratulations! The judges for the poster competition were **Debashish Mondal** and **Vidyadhar Phadke**.

The American Statistical Association, the International Indian Statistical Association and YOU:
Part 2: PROGRESS!

By Barry Nussbaum, President of the American Statistical Association

Avid readers of this newsletter will remember that I wrote a column for the Summer 2016 IISA Newsletter encouraging Indian statisticians to augment their technical work by becoming more active professionally in the statistical societies. As the current president of the American Statistical Association, naturally I would encourage taking advantage of the opportunities in the committees, sections, and chapters of the ASA. However, this is a two-way street. While encouraging individuals to become more active, I proposed an initiative to see how the ASA could encourage this involvement. Specifically, in recognition of the fact that the fastest growing segment of the statistical population is the group of Asian statisticians, our initiative seeks to identify and address distinctive needs and concerns of Asian statisticians.

To do this, ASA set up a committee consisting of two members each from IISA, the International Chinese Statistical Association (ICSA), and the Korean International Statistical Society (KISS). Additionally, I selected a faculty member of a university in Hong Kong to add an overseas dimension. As a measure of my commitment to this project, I asked former ASA president David Morganstein to lead the group. This effort, which some have deemed the "Asian Initiative" has turned into a very enthusiastic and determined project. David will delineate the steps and the progress in the article which immediately follows this one.

As for me, I have been able to get some first-hand feedback. I gave a brief talk at the IISA and KISS meetings at last year's JSM in Chicago. Further, just in the last year, I have made several trips to Asia. I have been to China, South Korea, Hong Kong, Thailand, and India. In India, I was a plenary speaker at the Platinum Jubilee Conference on Applications of Statistics to celebrate the 75th anniversary of the Statistics Department of the University of Calcutta. While in Kolkata, I also visited the Indian Statistical Institute. Hearing and seeing the Asian statistical community in action has certainly enlightened me and confirmed my resolve in this initiative.

Nussbaum Initiative ASA, IISA, KISS, ICSA Workgroup

By David Morganstein, Westat

As mentioned earlier in his article, ASA's 112th President Barry Nussbaum created a workgroup of members from these four professional societies, to identify ways the societies could collaborate on enhancing the professional growth of Asian statisticians. Representing the American Statistical Association (ASA) are David Morganstein, former ASA president and workgroup chair, and Alan Wan, faculty member of the City University of Hong Kong. Representing the International Indian Statistical Association (IISA) are Amarjot Kaur, IISA President 2016, and Subrata Kundu, a faculty member at George Washington University and current IISA treasurer. Representing the International Chinese Statistical Association (ICSA) are Mei-Ling Ting Lee, ICSA 2016 President, and Sheng Luo, a faculty member at the University of Texas, Health Science Center. The Korean International Statistical Society (KISS) is represented by Mimi Kim, President of the Korean International Statistical Society, and SeonJin Kim, a faculty member at Miami University.

The workgroup first met at the 2016 JSM in Chicago and began drafting a plan of action. A keen sense of enthusiasm was clearly evident! The workgroup members identified a number of actions that might enhance opportunities for growth for Asian statisticians regardless of membership in any of the associations. During a series of exchanges after the JSM, they narrowed the list down to two priority areas based on both strong impact and the likelihood of success, looking for high impact activities that seemed practical. The group formed two subgroups to work on these topics: training on career development and leadership skills and identifying and implementing strategies to increase the active involvement of Asian statisticians in the ASA.

The first subgroup, led by Amarjot Kaur, is planning workshops on their topic, training on career development and leadership skills. The first of these workshops might occur at this summer's JSM in Baltimore. Stay tuned! Plans are underway to expand and offer this workshop at subsequent conferences, including ASA sponsored conferences such as the 2018 CSP and JSM. Consideration is also being given to offering them at the other societies conferences.

The second subgroup, led by Mimi Kim, identified more than a dozen leaders in their societies whose names could be suggested to those involved in the ASA committee appointment process. The subgroup is currently working with ASA to pinpoint specific committees with openings starting in 2018 that would be appropriate for these recognized leaders and will propose their names to the ASA LSC members tasked with filling the available appointments. Another dimension to increasing involvement is to connect Asian statisticians with a local ASA chapter or with an appropriate section.

The workgroup will pursue their objectives during 2017 and evaluate the effectiveness of the steps they have currently planned.

Chaubey receiving the Life Achievement Award from G.C. Tikkiwal, who is the Dean of Science at Manipal University, Jaipur.

Member News

Kiranmoy Chatterjee

Kiranmoy Chatterjee, recently received his PhD in Statistics from the Indian Statistical Institute, Kolkata.

Yogendra Chaubey

Yogendra Chaubey, currently Professor of Mathematics and Statistics at Concordia University in Canada, received a Life Achievement Award for his contributions to statistical theory and practice, at the Silver Jubilee International Conference Forum for Interdisciplinary Mathematics on Interdisciplinary Mathematics, Statistics and Computational Techniques, which was held at Manipal University in Jaipur.

Pandu Kulkarni

Pandu Kulkarni was recently named the Chief Analytics Officer at Eli Lilly & Company; he is the Vice President of Biometrics and Advanced Analytics there as well.

Aarti Shah

Aarti Shah was promoted to Senior Vice President and was also named Chief Information Officer of Eli Lilly & Company. Furthermore, the Indianapolis Business Journal recently named Shah to its "Women of Influence" list. This annual list aims to recognize women who have risen to the highest levels of business, the arts, and public service in central Indiana.

Bani K. Mallick

Bani K. Mallick, Distinguished Professor of Statistics at Texas A&M University, was awarded a Fulbright-Nehru Distinguished

Chair for 2017-2018. He was one of roughly 40 individuals who received the award. He will be working on Big Data cancer research at the National Institute of Biomedical Genomics, Indian Institute of Management, Calcutta, and Calcutta University, along with several other Indian institutes.

Prayas Sharma

Prayas Sharma, currently an Assistant Professor of Decision Sciences at the University of Petroleum and Energy Studies in Dehradun, recently became the Academic Editor of the *Archives of Current Research International*; he also became an Editorial Board Member of the *Journal of Statistics*, Pakistan and the *Journal of Control Science & Engineering*.

Karan P. Singh

Karan P. Singh is now a Professor and Founding Chairman of the Department of Epidemiology and Biostatistics at the new School of Community and Rural Health at the University of Texas Health Northeast.

New Lifetime IISA Members

Sivaraman Balakrishnan, *Carnegie Mellon University, USA*

Adarsha Kumar Jena, *National Institute of Technology, Rourkela, India*

Gursharn Kaur, *ISI New Delhi, India*

Mukender Kadyan, *Kurukshetra University, India*

Satyabrata Pal, *Interdisciplinary Statistical Research Unit, ISI, Kolkata, India*

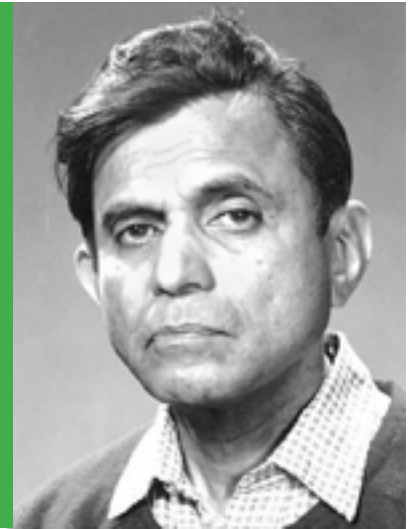**Sujata Patil,** *Memorial Sloan Kettering Cancer Center, USA*

Your name here...
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http://www.intindstat.org/membership

Obituary: Vidyadhar P. Godambe (1926-2016)

By Mary Thompson, University of Waterloo

Vidyadhar P. Godambe passed away June 9, 2016 in Waterloo, Canada. He was born June 1, 1926 in Pune, the second born and the only son in a family of four children. He was educated at the Nutan Marathi Vidyalaya, a leading school in Pune, and at Fergusson College for his BSc in Mathematics. He was awarded an MSc degree from Bombay University in 1950, and a PhD in 1958 from the University of London. Following a year as Senior Research Fellow at the Indian Statistical Institute in Calcutta, he became Professor and Head of the Statistics Department at Science College in Nagpur, and later held the same post at the Institute of Science, Bombay. In 1964, he left India for North America, his first position being at the Dominion Bureau of Statistics, now Statistics Canada. After visiting appointments at Johns Hopkins University and the University of Michigan, he joined the University of Waterloo in 1967. He remained in Waterloo thereafter, although he also spent the winter months in India in later years, and kept in touch with colleagues at the University of Pune. An interview appears in *Volume 17, Issue 4 (2002) of Statistical Science, 458-466*.

While employed as a government statistician before undertaking his PhD, Godambe published the paper, "A unified theory of sampling from finite populations", in the *Journal of the Royal Statistical Society* in 1955. This paper provided a theoretical framework for the problem of estimating a survey population total from a probability sample, and established a need for new ways of evaluating sampling strategies. For this paper and his subsequent work, Godambe is recognized as a pioneer in the theory of survey sampling. He is also known for formulating and developing a theory of estimating equations, beginning with a note in 1960 in the *Annals of Mathematical Statistics* entitled, "An optimum property of regular maximum likelihood estimation". His research contributions and his deep interest in fundamental questions attracted many other researchers and students to work in the foundations of inference.

Godambe was a Fellow of the Institute of Mathematical Statistics, a Fellow of the American Statistical Association, and an Honorary Member of both the Statistical Society of Canada and the International Indian Statistical Association. He was a Platinum Jubilee Lecturer of the 1990 Indian Science Congress, and in 1987 was awarded the Gold Medal of the Statistical Society of Canada. In 2002 he became a Fellow of the Royal Society of Canada.

Keenly interested in fostering debate and discussion, Godambe initiated or assisted in the organization of three memorable conferences: "New Developments in Survey Sampling", a symposium on the foundations of survey sampling held at the University of North Carolina, Chapel Hill (1968); "Foundations of Statistical Inference", held at the University of Waterloo (1970); and "Symposium on Estimating Functions", held at the University of Georgia (1996).

He loved music, and in his younger days would sometimes play an Indian flute at gatherings. He was also a gifted amateur artist, with several fine watercolor paintings to his credit. When not engaged in statistical thought, he enjoyed the company of family, friends, and colleagues, and evenings spent talking about "all subjects in the world."

Upcoming Conferences and Workshops

Neuro-Statistics: The Interface Between Neuroscience and Statistics
May 5-6, 2017
University of Minnesota, USA
http://irsa.stat.umn.edu/session/neuro-statistics-interface-between-neuroscience-and-statistics

IMS/ASA Spring Research Conference 2017
May 17-19, 2017
Rutgers University, New Jersey, USA
http://stat.rutgers.edu/ims-asa-spring-research-conference-2017

Contemporary Theory and Practice of Survey Sampling—A Celebration of Research Contributions of J.N.K. Rao
May 24-27, 2017
Yunnan University, China
http://www.raoconference2017.com

4 Short Courses at the 2017 Conference on Lifetime Data Science
May 25, 2017
University of Connecticut, Storrs, USA
http://lida.stat.uconn.edu/short-courses

ISBIS 2017 (International Society for Business and Industrial Statistics)
June 7-9 2017
IBM T.J. Watson Research Center, New York, USA
http://www.isbis2017.org

10th International Conference on Multiple Comparison Procedures
June 20-23, 2017
University of California, Riverside, USA
http://www.mcp-conference.org/hp/2017/

2017 International Chinese Statistical Association Applied Statistics Symposium
June 25-28, 2017
Hilton Chicago Downtown, Illinois, USA
http://bioinfo.stats.northwestern.edu/~icsa/

61st World Statistics Congress—ISI 2017
July 16-21, 2017
Mövenpick Mansour Eddahbi Hotel & Palais des Congrès Marrakech, Morocco
http://www.isi2017.org

Opening Workshop for Mathematical and Statistical Methods for Climate and Earth Systems Program
August 21-25, 2017
SAMSI, North Carolina, USA
https://www.samsi.info

Opening Workshop for Quasi-Monte Carlo and High-Dimensional Sampling Methods for Applied Mathematics Program
August 28-September 1, 2017
SAMSI, North Carolina, USA
https://www.samsi.info

Workshop on Trends and Advances in Monte Carlo Sampling Algorithms (Part of Quasi-Monte Carlo and High-Dimensional Sampling Methods for Applied Mathematics Program)
December 11-15, 2017
SAMSI, North Carolina, USA
https://www.samsi.info

2017 International Indian Statistical Association Conference
December 28-30, 2017
Hyderabad International Convention Centre, Telangana, India
http://www.intindstat.org/IISA2017

International Conference on Health Policy Statistics
January 10-12, 2018
Charleston Marriott Hotel, South Carolina, USA
http://ww2.amstat.org/meetings/ichps/2018/index.cfm

Food and Drug Administration
Center for Drug Evaluation and Research
Office of Biostatistics

Do you seek a challenging, career-enhancing position?
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The Office of Biostatistics (OB) in the Office of Translational Sciences, Center for Drug Evaluation and Research (CDER), FDA, is recruiting **Mathematical Statisticians** with strong skills in statistical methodology and communication and interest in biomedical applications.

You will work with multidisciplinary teams of review scientists in a dynamic, highly challenging, and innovative atmosphere of development, evaluation, and research of drug and therapeutic biologics. OB is responsible for reviews in diverse therapeutic areas such as cardio-renal, oncology, and antimicrobial products among others. You will have the opportunity to employ a broad variety of statistical procedures relevant to pre-clinical and clinical evaluation decisions for new and generic drugs as well as new and biosimilar biologics and the emerging fields of quantitative risk assessment and pharmacogenomics. While applying your skills to address unique and precedent setting problems, you will be refining your consulting, communication, and presentation skills. You will evaluate and advise on protocols for clinical studies and assess the evidence for safety and efficacy from clinical studies submitted in drug and biologics applications. Our active regulatory research program will allow you to advance your skills and professional development. In addition, you will have the opportunity to interact with national, international, public, and private organizations on statistical issues, and help develop guidance for the pharmaceutical industry.

QUALIFICATIONS: Candidates should possess professional experience and an advanced degree with specific coursework in an appropriate field of study. This should include 24 semester hours of mathematics and statistics, with any of the following: (a) at least 12 semester hours are in mathematics and 6 semester hours are in statistics (b) or a combination of education and experience with at least 24 semester hours of mathematics and statistics, including at least 12 hours in mathematics and 6 hours in statistics, plus appropriate experience or additional education.

Candidates with a Doctorate Degree and associated experience are highly desirable. In addition to a background in Statistics, applicants should have an interest in clinical trials, epidemiology, genomics or risk assessment. Candidates should also possess excellent oral and written communication skills. Since work is conducted in interdisciplinary groups, the ability to communicate statistical issues to non-statisticians is important. Candidates for Civil Service or USPHS Commissioned Corps must be U.S. citizens. Permanent U.S. residents and non-citizens may be eligible for term appointments.

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HOW TO APPLY: If you are interested in considering employment with CDER's Office of Biostatistics, please submit your resume to the OB Search Committee or more specifically to:
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Bldg. 21, Room 3550, 10903 New Hampshire Ave., Silver Spring, MD 20993-0002
Telephone: (301) 796-1200 E-mail: *CDER-OTS-OB-Recruitment@fda.hhs.gov*
For more information, please visit the
Office of Biostatistics website: *http://www.fda.gov/AboutFDA/CentersOffices/OfficeofMedicalProductsandTobacco/CDER/ucm166250.htm*

Thank you for reading!