

International Indian Statistical Association
Summer 2005 Newsletter

Dear friends and colleagues:

Greetings from Michigan! Wherever you are, hope you are enjoying a relaxing summer and getting ready to gear up for another academic year.

It's hard to believe that half of 2005 is already over! Our association saw change in leadership during this period. Professor N. Balakrishnan of McMaster University ended his term as President of IISA on June 30, 2005. On behalf of our association, I would like to formally extend our deepest appreciation for the great leadership that Professor Balakrishnan has rendered over the past year. Also, with this, I would like to welcome our current President, Professor Hira Koul of Michigan State University, who will surely lead us through many exciting paths in the coming year.

The Nomination Committee of IISA, comprised of Professors Soumen Lahiri, Kirti Shah, and Subrahmanian Panchapakesan, recently concluded their election of the President-Elect for this year. Professor Sreenivasa Rao Jammalamadaka of the University of California, Santa Barbara assumed the position of President-Elect as of July 1, 2005. Congratulations to Professor S.R. Jammalamadaka on his election, and our sincerest appreciation for the hard work of the members of the Nomination Committee that made this happen!

Once again, it is my pleasure to share with you the many accolades and achievements of the members of our association, news and notes about upcoming meetings, as well as our regular feature "*My Chancy Life as a Statistician*" by an eminent personality in our field. This issue features Professor Anant M. Kshirsagar, an illustrious scholar and beloved teacher of Statistics, who is fondly referred to as "Dr. Kay" by his many admirers (students and peers) across the globe.

If you have any articles or news items that you would like to share with members of the IISA, please send them to my attention. We love to hear from our members, so feel free to also send news about any recent awards or promotions, *etc.*

I wish you all a very happy and enjoyable summer (or whatever is left of it). For those of you who are attending the Joint Statistical Meetings in Minneapolis, I wish you a productive and fruitful meeting, and hope you can join us at the IISA dinner on Sunday, August 7th (details provided on page 4).

All the best,

Mousumi Banerjee
University of Michigan,
Ann Arbor, Michigan, USA.
(mousumib@umich.edu)

♣ ANNOUNCEMENTS

- We are very happy to announce that the Statistical Society of Canada has awarded Honorary Membership to **Professor Ehsanes Saleh** of Carleton University, Canada. The following news article was submitted by Dr. Zahirul Hoque of the Centre for Complex Dynamic Systems and Control, School of Mathematical and Physical Sciences, The University of Newcastle Callaghan, NSW 2308 Australia.



The Statistical Society of Canada (SSC) announced that Professor A.K. Md Ehsanes Saleh of Carleton University has been awarded Honorary Membership in the Society. An Honorary member is a statistical scientist of outstanding distinction who has contributed to the development of the statistics profession in Canada.

Professor Emeritus A. K. Md Ehsanes Saleh has been awarded the rank of Honorary Member of the SSC for his outstanding research and development of nonparametric methods for preliminary test and shrinkage estimation, auto-regression quantiles, and order statistics; for his superb service towards the development of graduate programs at Carleton University and the training of Ph.D. and young postdoctoral fellows in statistics; for his dedicated service to the profession, especially in the creative organization of symposia with edited volumes.

A.K.Md. Ehsanes Saleh received his Ph.D. from the University of Western Ontario, Ontario, Canada. He is a Fellow of IMS, ASA, and the Bangladesh Academy of Sciences. Professor Saleh is the second Bangladeshi statistician (after Q.M. Hossain) who has been the Fellow of the Bangladesh Academy of Sciences. He is an elected member of ISI and elected Fellow of the Royal Statistical Society, UK. He was awarded the Best Research Statistician's Gold Medal by ISESCO-ISOSS. Bangladesh Statistical Association awarded him the Q.M. Hosain Gold Medal recognizing him as the most outstanding Statistician of Bangladesh and Distinguished Scholar in Statistical Sciences.

Professor Saleh has published extensively in *Annals of Statistics*, *Journal of the American Statistical Association*, *Journal of Multivariate Analysis*, *Sankhya*, *Statistician*, *Journal of Statistical Planning and Inference*, *Metrika*, *Journal of Nonparametric Statistics*, *Journal of Royal Statistical Society*, *Journal of Statistical Computation and Simulation*, *Communications in Statistics*, *Statistics & Decisions*, *Probability and Statistics letters*, among others. He has

supervised 12 Ph.D. students, several postdoctoral and M.Sc.'s in the field. In addition, he has edited and co-authored several books. He is Editor-In-Chief of the Journal of Statistical Research and was in the editorial boards of many other international journals. He delivered many invited talks in various fields of statistics around the world. In addition to his book, Theory of Preliminary test and Stein-type Estimation with Applications that is in production stage by Wiley & Sons Inc., he has also co-authored another book, "Introduction to Probability and Statistics" (with Professor Rohatgi), also published by Wiley in 2000.

Professor Saleh was the 3rd Eugene Lukacs Distinguished Professor in 1986 and currently Professor Emeritus and Distinguished Research Professor in the School of Mathematics and Statistics, Carleton University, Ottawa, Canada.

Our heartiest congratulations to Professor Saleh on this occasion!

- IISA's official journal *Statistical Methodology* has already been launched and the first two volumes have been published by Elsevier.



Statistical Methodology aims to publish articles of high quality reflecting the varied facets of contemporary statistical theory as well as of significant applications. In addition to helping stimulate research, the journal intends to bring about interactions among statisticians and scientists in other disciplines broadly interested in statistical methodology. The journal focuses on traditional areas such as statistical inference, multivariate analysis, design of experiments, sampling theory, regression analysis, resampling methods, time series, nonparametric statistics, etc., and also gives special emphasis to established as well as emerging applied areas. The journal especially encourages the submission of authoritative reviews of innovative statistical applications and noteworthy overview presentations from interdisciplinary conferences. All correspondence regarding submissions should be directed to Professor G. J. Babu, Editor-in-Chief, Pennsylvania State University (e-mail: babu@stat.psu.edu).

♣ MEETINGS & EVENTS

1. The next **IISA Joint Meeting** has been scheduled to take place during January 2-5, 2007 in Cochin, Kerala, India, and the organizational work is well under way. More information will be provided in the next newsletter.
2. Professor Malay Ghosh (ghoshm@stat.ufl.edu) is organizing an **IISA sponsored invited papers session** at the upcoming Joint Statistical Meetings in Minneapolis. The session entitled "Statistics and Machine Learning" is scheduled for Wednesday, August 10th,

2005, from 10:30 - 12:20 pm and will feature exciting talks on topics such as Boosting, Support Vector Machines, and Neural Networks.

3. **IISA Dinner** at the Joint Statistical Meetings on Sunday, August 7, 2005.

In keeping with the annual tradition, IISA has arranged a dinner in Minneapolis during the Joint Statistical Meetings. Dr. Sudipto Banerjee of the Division of Biostatistics, University of Minnesota is making the local arrangements.

You and your family, guests and friends (Indian/non-Indian, members/nonmembers) are cordially invited to attend the dinner party. To reserve your place, please e-mail your name and total number of persons (adults and children) in your party to paramjit.gill@ubc.ca

The details of the dinner party are as follows:

Buffet Style Dinner

Date/Day: **August 7, 2005 Sunday**

Time: **6:00 - 8:30 pm**

Place: **Marquette Place (roof-top), 820 Marquette Ave. Minneapolis**

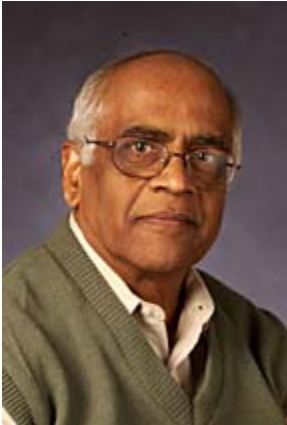
This is opposite to the convention center where the JSM is taking place.

Tentative menu: Vegetable Pakora (appetizer), Aachari Chicken (appetizer), Palak Paneer, Navratan Korma, Chana Masala / Bhatara, Chicken Tikka Masala, Goat curry, Gulab jamun (sweet-dish), Kheer. Rice and Naan will also be provided.

Price: The price per plate is US \$25/- (based upon a guarantee of 75 people) with a discount for children below the age of 13.

♣ *MY CHANCY LIFE AS A STATISTICIAN*

Anant M. Kshirsagar



I was born in India, in the state of Maharashtra, India. My early education and first two years of college education were completed in Sangli, Maharashtra, and I then went to the famous Fergusson College in Pune, which is a very reputed educational center in India. Due to the fact that my father had his private school which prepared students to get accelerated promotion by completing couple of grades in one year, I got my B.Sc. degree in Mathematics at the age of sixteen. I stood first in the Bombay University, which was the only university in the state of Maharashtra at that time. Choosing Mathematics as the principal subject for my B.Sc. was just a chance event, and the credit goes to my father. My own ambition was only to study Physics and be a teacher somewhere. Nobody knew what the prospects were for Mathematics graduates at that time, except becoming a teacher. “Statistics” was unknown to the general public. However due to the effort of Dr. P.R. Sukhatme, the Bombay University decided to start a post-graduate department of Statistics in 1948-49. Dr. Sukhatme brought to the attention of the university authorities that Marathi people were deprived of the chance of getting good jobs in the area of Statistics, as they could not get a degree in Statistics anywhere in Maharashtra. I was lucky that the department was started just in time when I had graduated. However, financially it was very difficult for my father to support my education and stay in Bombay. It was pure chance that I had befriended Dr. V.P. Godambe in Pune and he had obtained a loan scholarship for his Statistics education and through his help I too got that loan, and a very generous gentleman, Mr. Gulavne – a very distant relative of ours – was kind enough to allow me to stay in his home in Bombay. Meeting the right people by chance has been the key in my life. Else, I would have been an ordinary science teacher somewhere. My only qualification was to have studied sincerely and I did nothing else.

Bombay University was not finding any suitable Head of the Department of Statistics. By chance, Prof. M.C. Chakrabarti, who became a refugee after partition of India, was jobless and became available. He made the Bombay Department a first class one by his efforts and by his devotion to the subject. Somehow by chance or fate, whatever you may call, I became one of his favorite students, though there were many more talented and brilliant students like V.N. Patankar and R.D. Pradhan in my class. Chakrabarti even paid for my tuition once, when I was unable to do so

(of course, I paid him later). He was a great teacher. I became his colleague later. He was my mentor and role model. V.P. Godambe was also my role model. I owe to both these gentlemen whatever little I could achieve as a statistician. Chakrabarti made me teach almost every topic in Statistics – Multivariate Analysis, Sample Surveys, Inference, Quality Control, Linear Models, Probability, and of course his favorite – Design of Experiments. It is due to his teaching and insight that I learnt how to exploit the C-matrix of a design to explain and prove many results in experimental design. The eigenvalues & vectors of C-matrix have a wealth of information and potential which makes the analysis of good factorial experiments much simpler because the important main-effect and interaction contrasts become identical with the eigenvector contrasts of treatments. Analysis with recovery of inter-block information also becomes much simpler and easier.

In 1959, I went to Manchester on a study leave from Bombay University to do my Ph.D. under the guidance of Prof. M.S. Bartlett. I was under the impression that I will have to do research in the area of Stochastic Processes. Prof. Bartlett, though he had pioneering contributions in almost every branch of Statistics, was at that time most involved in the research on Stochastic Processes. However, due to my earlier publications in Bombay, he wanted me to go in the area of Wilks' Lambda, its factors, and in canonical analysis in general. Multivariate Analysis was my favorite subject and Bartlett introduced me to this area. There was a lot of potential here. Many famous statisticians favored principal components analysis because of their usefulness in data reduction. But Bartlett explained to me how canonical correlation analysis and its close relationship with discriminant analysis in the case of several populations is more useful and effective. I had quick success in publishing several papers in this area and I owe my success and reputation in Multivariate Analysis to Prof. Bartlett. He was a man of high ethical standards and used to talk very little. He used to meet his Ph.D students only once a week for an hour or so. He taught me a great deal through these one hour talks. We had established good relationship, so much so that later he sent me any papers that came to him for refereeing and had great faith in my ability to do so.

On my return from the U.K., I was in Bombay University for a couple of years and then seeing no future of any promotion (due to the apathy of Bombay University administrators towards Chakrabarti), I joined the Defense Science Laboratory of the Government of India in Delhi as a senior scientific officer. I was not very happy there as my bend of mind was towards theoretical research in Statistics and teaching. Even so, by a chance meeting with one Colonel Apte – who later rose to the position of a Lieutenant General due to his merit – on the streets of Delhi, I got interested in Markovian Renewal Theory. He needed a solution to his problem of gear boxes for B vehicles in the army. One of my colleagues, Dr. Y.P. Gupta, was also interested in this topic and we published many joint papers. I continued research in this area and guided several Ph.D. students not only in Delhi, but also Southern Methodist University (S.M.U), Dallas, and the University of Michigan, Ann Arbor.

Due to the efforts and insistence of one of my students – Prof. J.N.K. Rao – who had become very famous by then, I got a faculty position in S.M.U. in 1968 and I left Delhi to go there. Prof. Owen at SMU got a research grant – Themis grant – and he needed someone. I became a trusted favorite colleague of his. Students and faculty members and especially Dr. Owen himself liked me and my teaching, and did everything to get my visa status changed and keep me in America. Its here that I met Dr. William B. Smith (now Director, A.S.A) of Texas A&M University. He became a very dear friend and collaborator. I owe a great deal to him. I sometimes wonder, what did he see in me because he is a very talented, capable, all round person with a personality far different from mine, but by some chance our friendship clicked forever. We became joint authors of the book “Growth Curves” published by Marcel Dekker, later. He and Dr. Hartley persuaded

me to go to Texas A&M University, College Station in 1971. Even so, my collaboration with Dr. Owen in S.M.U. continued as I became an Associate Editor of the journal, Communications in Statistics, started by Owen. He relied very much on me for consultation and advice. On his death, I tried hard to persuade Dr. Smith to take up the editorship of the journal and insisted with Marcel Dekker, that they must agree to Dr. Smith's requirements and conditions if they want the journal to succeed. He raised the reputation of the journal and I was his trusted associate editor till my and his retirement. We helped many budding statisticians and junior faculty members in getting quick publications out of their research. We provided encouragement to them.

I was in Texas A&M University till 1977. Then I joined the Biostatistics Department of the University of Michigan, Ann Arbor. I remained there till my retirement in May 2005. All told, I was advisor of about 35 Ph.D. students. They were from many different countries – India, China, Taiwan, Korea, Argentina, and of course, America. Many of them have become personal friends of mine. It is their affection that kept me going. During all these years, I wrote three books and about hundred research papers. My first book, Multivariate Analysis, got very good reviews and was liked by the statistical community very much. Probably the reason was that till that time, there was no other book than Anderson's. I wrote that book in almost one month and the publisher Marcel Dekker, Inc. had just then started the statistical series. Dr. Dekker often took my advice about statistics books and the journal, "Communications in Statistics." We got along very well, though he thought I was a highly "opinionated" person. Many people tried to persuade me to write the second edition of the book, but somehow or the other, I never felt like doing it. One main reason for that is the fact that the attraction for "Distribution Theory" and elegant matrix transformations and proofs declined over the years and computer dependent research took its place. Applied Multivariate Analysis became easier due to SAS programs, and books which were written using SAS became more popular. I myself started teaching such an applied course and using such books. My other two books are "A Course in Linear Models" and "Growth Curves." The book on growth curves also became well known because Dr. Smith was my co-author and he made the book user friendly by incorporating computer programs facilitating the analysis of growth curve data.

The book on linear model became more popular in India, but unfortunately it had many printing mistakes. I learnt the theory of linear models from M.C. Chakrabarti, who himself learnt it from Professor R.C. Bose – the Guru of this subject. By some chance, when I was in the Defense Science Laboratory, Delhi, I was selected to attend Bose's lectures on Error Correcting Codes and I was amazed by the lucidity and clarity of his lectures. He was a great teacher and researcher. That was a very valuable opportunity to me.

Some people give me credit for making Canonical Correlations Analysis popular. The chapters I wrote in my book, "Multivariate Analysis" are referred to in the literature often. Gittins has written an excellent expository book on Canonical Analysis and I was surprised to find that he credited me in inspiring him to see the potential in Canonical Correlations Analysis. I had never met him, nor known him. So also, Dr. Mason – ex president of the American Statistical Association – who was a student in S.M.U. gives me credit in his multivariate analysis book. It is the affection of my students that gave me the energy and enthusiasm to keep on teaching Statistics for so many years; however, I must admit that it was purely chance that such eminent persons as J.N.K. Rao, Mason, Bhapkar, C.G. Khatree, K.V. Mardia happened to be my students.

In 1972, I was elected a Fellow of the American Statistical Association, and in 1977 I became a Fellow of the Institute of Mathematical Statistics and a member of the International Statistical Institute. I also had a long association with the Indian Statistical Association. I was once its President, and all the years I was an Associate Editor of its journal. I was invited by the

Government of India to give lectures at various institutes, and the Bombay University invited me once to give the M.C.Chakrabarti Memorial Lecture.

During all these years, my wife Achala gave me her support, sacrificing her interests and career, and taking care of the children and household matters. She has a keen practical sense and artistic bend of mind and I lack both of them. Her advice and help made my life more fruitful and richer. My two sons, Rahul and Amit, also have made our lives complete and joyful.

When I look back on my life, there is one thought that occurs to me and that is: I got much more success than I deserved and it was by the grace of God and pure chance that I met wonderful persons who guided me and helped me on the way.

