International Workshop on Statistical Methods for Business and Industry Applications

January 8-9, 2015, Chennai, India.

Program Schedule

Day 1: Jan 8, 2015

8:15 am - 9:00 am	Registration and Coffee
9:00 am - 9:15 am	Inauguration and Welcome
9:15 am - 10:00 am	Predictive Analytics - an Introduction: Nalini Ravishanker
10:00 am - 10:15 am	Break
10:15 am - 12:15 pm	Statistics in Pharma: Vishwanath Iyer
12:15 pm - 1:45 pm	Lunch
2:00 pm - 4:00 pm	Statistics in Market Research: Bhaskar Sarma
4:00 pm - 4:15 pm	Break
4:15 pm – 5:15 pm	Reliability Modeling in Manufacturing Industry I: Nandini Kannan

Day 2: Jan 9, 2015

8:30 am - 9:00 am	Coffee
9:00 am - 10:00 am	Reliability Modeling in Manufacturing Industry II: Nandini Kannan
10:00 am - 10:15 am	Break
10:15 am - 12:15 pm	Data Mining and Pattern Recognition: Smarajit Bose
12:15pm - 1:45 pm	Lunch
1:45 pm - 3:45 pm	Time Series Modeling in Financial Industry: Nalini Ravishanker
3:45 pm - 4:00 pm	Break
4:00 pm – 5.15 pm	Q&A, Open floor discussion.

Venue: Indian Statistical Institute Chennai Center, SETS,

MGR Knowledge city,

CIT Campus, Taramani, Chennai, Tamil Nadu 600113India

Questions: Please email chennaiworkshop15@gmail.com

Workshop Organizing Committee

Dr. Nalini Ravishanker (Chair), Professor, University of Connecticut, USA

Dr. Amit K. Biswas, Technical Officer, ISI Chennai Center, India

Dr. Nandini Kannan, Professor, National Science Foundation, USA

Dr. Rajeeva Karandikar, Director CMI, India

Dr. Rituparna Sen, Assistant Professor, ISI Chennai Center, India

Dr. M.R.Srinivasan, Faculty and Department Head, University of Madras, India

Information on Talks and Speakers

Speaker: Prof. Smarajit Bose, Interdisciplinary Statistical Research Unit, Indian Statistical Institute, Kolkata 70010, smarajitbose@gmail.com

Title: Pattern Recognition Techniques for Industry Applications

Abstract: Pattern Recognition techniques have become essential tools in modern day problems related to Business and Industry. This presentation aims at giving exposure to (a) problems where the pattern recognition techniques are appropriate, (b) some parametric and nonparametric classification techniques, and (c) the strengths and weakness of the methods.

Brief Bio: Prof. Smarajit Bose received his B. Stat, and M.Stat degrees from ISI, Kolkata, and Ph.D. in Statistics from UC Berkeley. He has been a Visiting Professor in the University of Washington, Seattle, at Ohio State University and at UC Santa Barbara. He joined ISI Kolkata in 1996, and has been a Professor since 2007.

Speaker: Dr. Vishwanath (Mahesh) Iyer, Head- Oncology Biometrics Hyderabad, Novartis Healthcare Pvt. Ltd., Hyderabad, Telangana 500 081, vishwanath.iyer@novartis.com

Title: On designing a Phase III clinical trial study

Abstract: A Phase III clinical trial is almost always essential before a drug can be approved and made available for patients to buy. Most people tend to think of a Phase III clinical trial as a "very large study, requiring lots of subjects", but do not necessarily look beyond the sample size. In fact, there are many other critical logistical, economic, scientific and regulatory considerations that one needs to keep in mind while designing a Phase III study. The presentation will focus on many of the statistical challenges that one would encounter while designing a Phase III study, while also briefly describing many of the other challenges, and how it is important for the entire team to work together to be able to design a successful study.

Brief Bio: Vishwanath (Mahesh) Iyer is currently Head of Oncology Biometrics at Novartis, Hyderabad heading up a team of Biostatisticians and SAS programmers. He has a Ph.D. in Statistics from Temple University, Philadelphia. Mahesh has been involved in analyzing and reporting clinical trial data since 1998, and specifically in the Oncology area since 2000.

Speaker: Dr. Nandini Kannan, Program Director for Statistics, National Science Foundation, Arlington VA, nkannan12@yahoo.com

Title: Statistical Methods in Reliability with applications to Business and Industry

Abstract: In Reliability and survival analysis, researchers are often interested in the effects of different stress factors such as temperature, voltage, and pressure on the lifetimes of experimental units. Accelerated testing allows the experimenter to increase the levels of these stress factors to obtain information on the parameters of the life distributions more quickly than would be possible under normal operating conditions. We will introduce different models for accelerated tests and describe their properties.

Brief Bio: Dr. Nandini Kannan received her B.Sc. and M.Sc. degrees in Statistics from the University of Madras, and a Ph.D. in Statistics from The Pennsylvania State University. Her research interests include survival analysis, signal processing, and multivariate analysis. She has extensive consulting experience in applied statistics and modeling. She is a Fellow of the American Statistical Association and an elected member of the International Statistical Institute.

Speaker: Prof. Nalini Ravishanker, Department of Statistics, University of Connecticut, Storrs CT 06269, USA. Nalini.ravishanker@uconn.edu; www.stat.uconn.edu/~nalini

Title: Applied Time Series Analysis for Business data

Abstract: Data that are observed over time are ubiquitous in several business applications, including finance, marketing, operations, etc. This presentation will discuss popular time series models that enable us to understand the patterns over time, and to predict into the future.

Brief Bio: Prof. Nalini Ravishanker received her B.Sc. in Statistics from Presidency College, Chennai, and her Ph.D. from the Stern School of Business, New York University. She has been a faculty at the University of Connecticut since 1989. Her research interests span several areas of applied statistics, primarily time series analysis. She is VP for Scientific Programs, ISBIS.

Speaker: Dr. Bhaskara Sarma, Manager Analytics, ITC - Foods Division, Bangalore, India, bhaskara.ravi@itc.in

Title: What goes inside solving a marketing problem using Statistical methods?

Abstract: Marketing problems are often analyzed using statistical methods such as regression, logistic regression etc. My talk takes you through the journey of solving a marketing problem and the challenges faced in defining the problem, identifying relevant data, and designing the analysis framework. Further, it presents the role of statistical methods in "Analytics" profession.

Brief Bio: Dr. Bhaskara Sarma received his M.Sc. from the University of Hyderabad and his Ph.D. in Statistics from Old Dominion University, Norfolk, USA. He started his career with teaching and has more than 12 years of industry experience as an Analytics Professional, primarily in marketing analytics across retail, banking, bio-medical, and manufacturing sectors.

UTY IN DIVERS