

**International Conference on Computer Age Statistics
in the Era of Big and High Dimensional Data
January 03-05, 2019**

Pre-conference Workshop

Jan. 02, 2019: Wednesday

Venue: Computer Laboratory, Department of Statistics

Introduction to Optimal Transport and Statistics

Resource Person: Dr. Bodhisattva Sen, Columbia University, New York, USA

10:00-11:30 Session I
11:30-11:45 Tea Break
11:45-13:00 Session II

13:00-14:30 **Lunch Break** (Department of Statistics)

Machine Learning Concepts and Applications for Big and High Dimensional Data

Resource Person: Dr. Sharad Saxena, SAS Research & Development India Pvt. Ltd.

14:30-16:00 Session I
16:00-16:15 Tea Break
16:15-17:30 Session II

**International Conference on Computer Age Statistics
in the Era of Big and High Dimensional Data
January 03-05, 2019**

Day 1: Jan. 03, 2019: Thursday

08:30-09:15 **Registration & Breakfast** (Department of Statistics)
09:15-10:00 **Inauguration** (Seminar Hall, Department of Commerce)

Plenary Talk-1 (Seminar Hall, Department of Commerce)

Chair: H. L. Koul

10:00-10:45 Sanjib Basu, University of Illinois at Chicago, USA
Bayesian Criterion Based Variable Selection: Comparisons and Applications
10:45-11:00 **Tea Break**

Invited Session-1 (Seminar Hall, Department of Commerce)

Chair: Somnath Datta

11:00-11:30 Sujit Ghosh, North Carolina State University, USA
Dynamic Correlation Multivariate Stochastic Volatility with Latent Factors
11:30-12:00 Atanu Biswas, Indian Statistical Institute, Kolkata
Modelling and Forecasting of Count Time Series Consisting Large Number of Zeros and Ones
12:00-12:30 Bodhisattva Sen, Columbia University, New York, USA
Nonparametric Estimation in a Two-Component Mixture Model with Covariates
12:30-13:00 Naveen Narisetty, University of Illinois at Urbana-Champaign, USA
Variable Selection Techniques for Analyzing High-Dimensional Datasets
13:00-14:00 **Lunch Break** (Department of Statistics)

Invited Session-2 (Seminar Hall, Department of Commerce)

Chair: Sujit Ghosh

- 14:00-14:30** Thomas Mathew, University of Maryland Baltimore County, USA
Statistical Methods for Cost-Effectiveness Analysis: A Selected Review
- 14:30-15:00** Somnath Datta, University of Florida, USA
Flexible Semi-Parametric Regression of State Occupational Probabilities in a Multistate Model with Right-Censored Data
- 15:00-15:30** Debjyoti Sinha, Florida State University, USA
Semiparametric Bayesian Latent Variable Regression for Skewed Multivariate Data
- 15:30-16:00** Sanjay Shete, The University of Texas MD Anderson Cancer Center, USA
Mediation Analysis in a Case-control Study when the Mediator is a Censored Variable
- 16:00-16:30** **Tea & Group Photo** (Department of Commerce)

Contributory Talks

Session 1(A): Biostatistics (Lecture Hall 1, Department of Statistics)

Chair: Sanjay Shete

- 16:30-16:45** Pramod K. Gupta, Postgraduate Institute of Medical Education and Research, Chandigarh
A New Statistical Testing Method to Minimize False Discovery: An Illustration of Gene Expression Data
- 16:45-17:00** Jobin Idiculla, Crowd ANALYTIX Solutions Pvt Ltd., Bengaluru
A Distance and Rotationally-Invariant Similarity Metric for Human Pose Estimation Using OpenPose
- 17:00-17:15** Kiran Kumar Paidipati, Pondicherry University, Pondicherry
Epidemiological Study of Malaria Incidence (MI) in India-Time Series Data of NVBDCP during 2001-2017
- 17:15-17:30** Ashma Dorothy Monteiro, MAHE, Manipal, Karnataka
Performance of Inverse Probability Weighted Weibull Models when Exposure is Quantitative
- 17:30-17:45** Mavitha T. S., Chamarajanagara Institute of Medical Sciences, Chamarajanagara, Karnataka
Nutritional Status Among School Children Aged 6 to 12 Years in Chamarajanagara District, Karnataka, India.
- 17:45-18:00** Praveena A. S., University of Mysore, Mysore
Cluster Analysis Identifies Distinct Clinical Phenotypes Associated with Poor Treatment Responsiveness in Asthma.
- 18:00-18:15** Jomy Jose, Glaxo Smith Kline, Bengaluru
New Agile Clinical Trials: Optimization Using SAS
- 18:15-18:30** Shital Solankar, Savitribai Phule Pune University, Pune
Statistical Assessment of Blinding

Session 1(B): Reliability & Optimization (Lecture Hall 3, Department of Statistics)

Chair: R. L. Shinde

- 16:30-16:45** Juvairiyya R. M., Farook College, Kerala
Estimation of Stress-Strength Reliability Using Lower Records from Inverse Chen Distribution
- 16:45-17:00** Leena Kulkarni, NMIMS, Mumbai
Parameter Estimation for Multi-State Series and Parallel Systems with Positively Quadrant Dependent Models
- 17:00-17:15** Suhas Bhat, Karnatak University, Dharwad, Karnataka
Shock Model with Two Kinds of Shocks
- 17:15-17:30** Santosh Sutar, Yashwantrao Chavan School of Rural Development, Shivaji University, Kolhapur, Maharashtra
Load Sharing in a Two Component Parallel System with Non-Identical Components
- 17:30-17:45** Babasaheb Thorve, New Arts, Commerce and Science College, Ahmednagar, Maharashtra
Comparison of Replacement Policies For Uncertain Parameters
- 17:45-18:00** Sandesh Kurade, M.E.S. Abasaheb Garware College, Pune
Inventory Model for Perishable Items with Demand Per Unit Time Under Shortages Using Binary Coded Genetic Algorithm
- 18:00-18:15** Virali Vora, Gujarat University, Gujarat
Deterministic Inventory Model for Deteriorating Items Under Ramp Type Demand Rate with Time Dependent Holding Cost
- 18:15-18:30** Mahesh Deshpande, Solapur University, Solapur, Maharashtra
A Model-free Approach to Reduce the Effect of Autocorrelation on Process Capability Indices

Session 1(C): Statistical Theory and Applications (Lecture Hall 4, Department of Statistics)

Chair: Subhash Lele

- 16:30-16:45** Shashikant Khilare, R. B. Narayanrao Borawake College, Shirampur, Maharashtra
A Nonparametric Group Runs Control Chart for Location Based on Sign Statistic
- 16:45-17:00** Somnath Pawar, Shivaji University, Kolhapur, Maharashtra
Nonparametric Tests for Scale Homogeneity Based on Scale Curves
- 17:00-17:15** Vipin N., Manipal Academy of Higher Education (MAHE), Manipal, Karnataka
Role of Copula Based Upper Partial Moments in the Context of Stochastic Modelling
- 17:15-17:30** Mukund Ramtirthkar, Department of Statistics, Savitribai Phule Pune University, Pune
The Local Asymptotic Mixed Normality of a Controlled Branching Process with Deterministic Control
- 17:30-17:45** Mukta Deshpande, Post Graduate Teaching Department of Statistics, R.T.M.Nagpur University, Nagpur, Maharashtra
Some Results Pertaining Random Variables Associated with Random Permutations and Binary Search Trees
- 17:45-18:00** Mahesh Barale, Shivaji University, Kolhapur, Maharashtra
A Distribution-Free Control Chart Based on Data Depth for Monitoring the Variability in Multivariate Process
- 18:00-18:15** Nisha Padappa, Savitribai Phule Pune University, Pune

18:15-18:30 Some Runs Rule and ACS based Control Charts for Detecting Shifts in the Process Mean Vector
Anju Bhagat, National Agricultural Research Project, Pune
A Study on Behavior of Arrivals and Prices of Onion in Major Markets of Western Maharashtra

Day 2: Jan. 04, 2019: Friday

08:30-09:00 **Breakfast** (Department of Statistics)

Plenary Talk-2 (Seminar Hall, Department of Commerce)

Chair: J. V. Deshpande

09:00-09:45 Probal Chaudhuri, Indian Statistical Institute, Kolkata
Mahalanobis' Profiloscope and Biometric Profiling

Invited Session-3 (Seminar Hall, Department of Commerce)

Chair: Ashis SenGupta

09:45-10:15 Susmita Datta, University of Florida, USA
Identifying Alteration of Phosphorylated Proteins for Time-Course Clinical Data: A Bayesian Approach!

10:15-10:45 Sangita Kulathinal, University of Helsinki, Finland
Statistical Challenges of Studies Based on Health and Social Registers

10:45-11:00 **Tea Break**

Invited Session-4 (Seminar Hall, Department of Commerce)

Chair: D. T. Shirke

11:00-11:30 Rajeeva Karandikar, Chennai Mathematical Institute, Chennai
Role of Copula in Financial Modeling

11:30-12:00 Subhash Lele, University of Alberta, Canada
Covariance Models for Spatio-Temporal Processes on a Regular Grid: Flexible, Yet Computationally Simple

12:00-12:30 Srinivas Bhogle, CSIR Fourth Paradigm Institute, Bangalore
Monsoon Prediction: Data from Models, and Models From Data

12:30-13:00 D. N. Kashid, Shivaji University, Kolhapur, Maharashtra
Variable Selection Problem in Regression

13:00-14:00 **Lunch Break** (Department of Statistics)

Invited Session-5 (Sponsored by ISBIS) (Seminar Hall, Department of Commerce)

Chair: Balaji Raman

- 14:00-14:30** N. Balakrishna, Cochin University of Science and Technology, Cochin, Kerala
Analysis of Autoregressive Models with Symmetric Stable Innovations
- 14:30-15:00** Ramasubramanian Sundararajan, Cartesian Consulting, Bengaluru
The Cost of Complexity
- 15:00-15:30** Shibasish Dasgupta, Ford Motor Pvt. Ltd., Chennai
Variable Selection Using Kullback-Leibler Divergence Loss

15:30-16:00 **Tea Break**

Contributory Talks

Session 2(A): Inference & Data Science (Lecture Hall 1, Department of Statistics)

Chair: Sangita Kulathinal

- 16:00-16:15** Shilpa Khare, Mumbai University, Mumbai
Bias Reduction Estimators for a Bivariate Distribution with Gamma and Beta Marginals.- An Application to Academics.
- 16:15-16:30** Pooja Mansharamani, Glaxo Smith Kline, Bengaluru
Machine Learning Approach to Competitor Analytics
- 16:30-16:45** Namitha Pais, Savitribai Phule Pune University, Pune
Classification of Pulsars using Statistical Methods
- 16:45-17:00** Paras Sheth, Maharaja Krishnakumarsinhji Bhavnagar University, Bhavnagar, Gujarat
Bayes Estimation of Non Standard Mixture of Exponential Distribution
- 17:00-17:15** Shashank Shindhe, Karnatak University, Dharwad, Karnataka
A General Class of Nonparametric Tests for Two-Sample Scale Problem
- 17:15-17:30** Bhargavi Deshpande, Karnatak University, Dharwad, Karnataka
Tests Based on Adaptive Kernel Regression Estimator for Nonparametric Regression
- 17:30-17:45** Sneha Babel, H. V. Desai College, Pune
Missing Data Imputation for Circular Data
- 17:45-18:00** Priyanka Anjoy, ICAR-Indian Agricultural Statistics Research Institute, New Delhi
Analysis of District and Social Group-Wise Disparity in Poverty in Chhattisgarh using Small Area Estimation Approach
- 18:00-18:15** Sreelaxmi N, IIT Madras, Chennai
Jackknife Empirical Likelihood Based Inference for Probability Weighted Moments

Session 2(B): Sampling Methods & Linear Models (Lecture Hall 3, Department of Statistics)

Chair: H. V. Kulkarni

- 16:00-16:15** Sudheesh Kattumannil, Indian Statistical Institute, Chennai
Linear Transformation Model with Measurement Error in Covariates
- 16:15-16:30** Pratima Bagchi, George Mason University, USA
A Test for Separability in Covariance Operators of Random Surfaces
- 16:30-16:45** Raosaheb Latpate, Savitribai Phule Pune University, Pune
Negative Adaptive Cluster Double Sampling
- 16:45-17:00** Saurav Guha, Indian Agricultural Statistics Research Institute, New Delhi
Finite Population Mean Estimation using Two Auxiliary Variables in Double Sampling in the Presence of Nonresponse
- 17:00-17:15** Sagar Pandhare, Savitribai Phule Pune University, Pune
The Robust Focused Estimation and Variable Selection in Generalized Linear Models for High Dimensional Data
- 17:15-17:30** Chandrashekhar Swami, Tuljaram Chaturchand College of Arts, Science and Commerce, Baramati, Maharashtra
Comparative Study of Self Relocating Design and Type II Censoring in Life Testing Experiment When Life Time Follows Generalized Exponential Distribution: Two -Way Classification
- 17:30-17:45** Mohd Khalid, Indian Institute of Technology (ISM), Dhanbad, Jharkhand
Estimation of Population Mean Under the Problems of Random Non-Response in Two-Occasion Successive Sampling
- 17:45-18:00** Fagun Shah, Sardar Patel University, Anand, Gujarat
Ratio-type Estimation of a Finite Population Mean using Two Auxiliary Variables under Two-phase Sampling
- 18:00-18:15** Neela Gulanikar, Savitribai Phule Pune University, Pune
Statistical Modelling of Changes in Marriage Patterns
- 18:15-18:30** Sachin Patil, Shivaji University, Kolhapur, Maharashtra
Efficient Universal ANOVA under Inverse Gaussian Distribution

Session 2(C): Time Series & Finance (Lecture Hall 4, Department of Statistics)

Chair: N. Balakrishna

- 16:00-16:15** Jaya Kulkarni, Swami Ramanand Teerth Marathwada University, Nanded, Maharashtra
A Comparative Study of Emotional Intelligence in Medical and Engineering Students.
- 16:15-16:30** Anuj Mishra, Savitribai Phule Pune University, Pune
Bayesian Analysis of SCD Model Using Hamiltonian Monte Carlo
- 16:30-16:45** Adarsh Meher, Fractal Analytics, Mumbai
Modelling Intraday Volatility of High Frequency Financial Data Using Bayesian Nonparametric Methods
- 16:45-17:00** Rahul T, Reserve Bank of India, Mumbai

	Time Series with Birnbaum-Saunders Marginal Distributions
17:00-17:15	Shiji K, Sree Kerala Varma College, Thrissur, Kerala
	Weibull Product Autoregressive Model and its Statistical Analysis
17:15-17:30	Sanmati Neregal, Karnatak University, Dharwad, Karnataka
	Impact of Demonetization on Inflation in India: Time Series Intervention Analysis
17:30-17:45	Kumarswami Kandukuri, Osmania University, Hyderabad
	Repeated Purchase Consumer Behavior in Weibull Distribution
17:45-18:00	Vasantha Kumari J, University of Agriculture Sciences, Dharwad, Karnataka
	A Study on Rain Fall Data of Vijayapur in the Context of Extreme Value Theory
18:00-18:15	Pratiksha Shinde, Department of Statistics, Savitribai Phule Pune University, Pune
	Modelling Rainfall in Different Rainy Nakshatras: A Markov Chain Approach
18:45-19:45	Cultural Programme (Sant Namdeo Hall)
19:45-21:00	Banquet (Department of Statistics)

Day 3: Jan 05, 2019: Saturday

08:30-09:00 **Breakfast** (Department of Statistics)

Plenary Talk-3 (Seminar Hall, Department of Commerce)

Chair: Probal Chaudhuri

09:00-09:45 H. L. Koul, Michigan State University, USA
Lack-of-Fit of a Parametric AR(1) Model in the Presence of Measurement Error

Invited Session 6 (Seminar Hall, Department of Commerce)

Chair: Subhash Lele

09:45-10:15 K.S. Madhava Rao, Botswana University, Botswana
Count Based Tests for Diagonal Symmetry in Bivariate Distributions

10:15-10:45 Subrata Kundu, George Washington University, USA
Joint Modeling of Multiple Skewed Longitudinal Processes with Excess of Zeroes and Time-to-Event Using a Shared Parameter Model

10:45-11:00 **Tea-Break**

Invited Session 7 (Seminar Hall, Department of Commerce)

Chair: Subrata Kundu

- 11:00-11:30** Ashis SenGupta, Indian Statistical Institute, Kolkata
Probability Distributions on Hyperdisc with Applications to Astrophysics
- 11:30-12:00** R.L. Shinde, Kavayitri Bahinabai Chaudhari North Maharashtra University, Jalgaon, Maharashtra
Indian Women's Health Index Based on the National Family Health Surveys
- 12:00-12:30** H. V. Kulkarni, Shivaji University, Kolhapur, Maharashtra
A Data-Depth Based Unified Approach to Non-Normal Non-Linear Regression
- 12:30-13:00** Hukum Chandra, ICAR, New Delhi
Small Area Prediction of Counts Under a Spatial Non-Stationary Generalized Linear Mixed Model
- 13:00-14:00** **Lunch Break** (Department of Statistics)

Invited Session 8 (Seminar Hall, Department of Commerce)

Chair: K.S. Madhava Rao

- 14:00-14:30** George Sebastian, St. Thomas College, Pala, Kerala
Interval Estimation of Process Capability Indices for Gaussian and Non-Gaussian Processes
- 14:30-15:00** Kaushik Jana, Imperial College, London, UK
Scoring Predictions at Extreme Quantiles with Application to Cyber Netflow Data
- 15:00-15:30** Valedictory Function
- 15:30-16:00** **High Tea** (Department of Statistics)