

**DEPARTMENT OF STATISTICS, M.D. UNIVERSITY, ROHTAK-124001 (INDIA)**

**International Conference**

**On**

**Emerging Innovations in Statistics & Operations Research**

**(EISOR-2018)**

**27 – 30 December 2018**

**In Conjunction with**

**38<sup>th</sup> Annual Convention of Indian Society for Probability and Statistics (ISPS)**

**&**

**4<sup>th</sup> Convention of Indian Association for Reliability and Statistics (IARS)**

**General Schedule**

<b>Day-1 (27-12-2018)</b> <b>(Thursday)</b>		
<b>Time</b>	<b>Programme</b>	<b>Venue</b>
08:00-09:30	<b>Breakfast</b>	Faculty House
09:30-11:30	<b>Registration &amp; High Tea</b>	Dr. R K Auditorium
11:30-01:00	<b>Inauguration</b>	Dr. R K Auditorium
01:00-2:30	<b>Lunch</b>	IHTM Lawn
02:30-04:00	<b>Keynote Address Session</b> <b>Chair:</b> Prof. C. Umashankar <ul style="list-style-type: none"><li><b>Speaker:</b> Prof. S. Rao Jammalamadaka (USA) <b>Title:</b> Generalized Spacing's Estimators</li><li><b>Speaker:</b> Prof. Sat Gupta (USA) <b>Title:</b> Respondent Privacy, Data Security, and Estimation Quality in Sample Surveys</li></ul>	Conference Hall IHTM
02:30-04:00	<b>Prof. P.V. Sukhatme Endowment Lecture</b> <b>Speaker:</b> Prof. Debasis Kundu <b>Chair:</b> Prof. N. Balakrishna <b>Title:</b> Geometric Skew Normal Distribution <b>Plenary Session: 01</b> <b>Chair:</b> Prof. B.K. Das <b>Speaker:</b> Prof. Junzo Watada (Japan) <b>Title:</b> Infinite Pure Jump Levy Process under Multi Uncertainty Environment in Asset Pricing Applications	Smart Room IHTM
04:00-04:15	<b>Tea</b>	IHTM
04:15	<b>ISPS EC Meeting</b>	Board Room IHTM

04:15-05:45	<b>Plenary Session: 02</b> <b>Chair:</b> Prof. Amar Nath Gill <b>Speakers</b> <ul style="list-style-type: none"> <li>• Prof. M. B. Rao (USA) <b>Title:</b> Why Humans are so Dominant?</li> <li>• Prof. Neeraj Misra <b>Title:</b> Applications of <b>TP<sub>2</sub>/RR<sub>2</sub></b> Functions in Probability and Statistics: A Review of Some Key Results</li> </ul>	Conference Hall IHTM
04:15-05:45	<b>Plenary Session: 03</b> <b>Chair:</b> Prof. K. Muralidharan <b>Speakers</b> <ul style="list-style-type: none"> <li>• Prof. G.C. Tikkiwal <b>Title:</b> The Place of Statistics in the University – Revisited in the Context of Indian Universities</li> <li>• Prof. D.S. Hooda <b>Title:</b> Generalized Residual Entropies in Survival Analysis</li> </ul>	Smart Room IHTM
08:00- 09:30	<b>Welcome Dinner</b>	Faculty House

	<b>Day-2 (28-12-2018)</b> <b>(Friday)</b>	
08:00-9:30	<b>Break Fast</b>	Faculty House
09:30-11:00	<b>Technical Session: 01</b> <b>Chair:</b> Prof. Hukum Chandra <b>Presenters:</b> CPS-3: ST (01-08) <ul style="list-style-type: none"> <li>• Vandita Kumari, Hukum Chandra &amp; Kaustav Aditya</li> <li>• Chandni Kumari &amp; Shashi Bhushan</li> <li>• Rajesh Singh &amp; Madhulika Mishra</li> <li>• G. N. Singh &amp; C. Singh</li> <li>• Geeta Kalucha</li> <li>• Vishwantra Sharma &amp; Sunil Kumar</li> <li>• C. Singh, G. N. Singh &amp; S. Suman</li> <li>• S. Suman, G. N. Singh &amp; C. Singh</li> </ul>	Conference Hall IHTM
09:30-11:00	<b>Technical Session: 02</b> <b>Chair:</b> Dr. Anshu Gupta <b>Presenters:</b> CPS-9: SQC (01-07) <ul style="list-style-type: none"> <li>• Amin ShakaAunali &amp; D. Venkatesan</li> <li>• Ranjeet Kumar Singh &amp; Nirpeksh Kumar</li> <li>• Shashibhushan B. Mahadik</li> <li>• K. Sai Swathi &amp; G. V. S. R. Anjaneyulu</li> <li>• Sonam Jaiswal &amp; Nirpeksh Kumar</li> <li>• M. Vijayakumar &amp; D. Venkatesan</li> <li>• K. Rosaiah, B. Srinivasa Rao, Dr. J. Pratapa Reddy &amp; C.</li> </ul>	Board Room IHTM

	Chinnamamba	
09:30-11:00	<b>Technical Session:03</b> <b>Chair:</b> Dr. Akash Anand (DU) <b>Presenters:</b> CPS-5: RTM (01-08) <ul style="list-style-type: none"> <li>• A. Loganathan &amp; M. Gunasekaran</li> <li>• Rashi Hora</li> <li>• K. Rosaiah, G. Srinivasa Rao, K. Kalyani &amp; D.C.U. Sivakumar</li> <li>• Sumit Koul</li> <li>• Intekhab Alam &amp; Aquil Ahmad</li> <li>• Neha Sharma &amp; JP Singh Joorel</li> <li>• Jisha Varghese &amp; K.K. Jose</li> <li>• A. Loganathan &amp; R. Jeromia Muthuraj</li> </ul>	Smart Room IHTM
11:00-11:30	<b>Tea</b>	IHTM
11:30-01:00	<b>Endowment Lectures Session</b> <ul style="list-style-type: none"> <li>• <b>Prof. A. M. Mathai Endowment Lecture</b>  <b>Chair:</b> Prof. David Hangal  <b>Speaker:</b> Prof. K.S. Rao  <b>Title:</b> On Family of Logistic Type Distribution and its Applications</li> <li>• <b>Prof. Y C Narasimhulu Endowment Lecture</b>  <b>Chair:</b> Prof. K. Muralidharan  <b>Speaker:</b> Prof. David Hangal  <b>Title:</b> Analysis of Delayed S-Shaped Software Reliability Growth Model with Time Dependent Fault Content Rate Function</li> </ul>	Conference Hall IHTM
11:30-01:00	<b>Invited Talk Session: 01</b> <b>Chair:</b> Prof. M. B. Rao (USA) <b>Speakers</b> <ul style="list-style-type: none"> <li>• <b>Shesh Nath Rai &amp; Deo Kumar Srivastava (USA)</b>  <b>Title:</b> Robust Behrens-Fisher Statistic and its Application in High Throughput Data</li> <li>• <b>Prof. Amar Nath Gill</b>  <b>Title:</b> Single Stage Multiple Comparisons With the Average for Normal Means under Heteroscedasticity</li> <li>• <b>Prof. Hukum Chandra</b>  <b>Title:</b> Small Area Prediction of Counts under a Spatial Non-Stationary Generalized Linear Mixed Model</li> </ul>	Board Room IHTM
11:30-01:00	<b>Invited Talk Session: 02</b> <b>Chair:</b> Prof. Kalpana Mahajan <b>Speakers</b> <ul style="list-style-type: none"> <li>• <b>Dr. Sadia Khalil (Pakistan)</b>  <b>Title:</b> Evaluating Performance of Mean Estimators of Sensitive Variables under Measurement Errors and</li> </ul>	Smart Room IHTM

	<p>Non-Response with Respect to Efficiency and Respondent Privacy</p> <ul style="list-style-type: none"> <li>• <b>Dr. Anshu Gupta</b> <b>Title:</b> An Approach to Assess the Efficiency of Retail Stores and Identification of the Improvement Drivers</li> <li>• <b>Prof. Usha Ramanathan (UK)</b> <b>Title:</b> Statistics for Present and Future</li> </ul>	
11:30-01:00	<p><b>Technical Session:04</b> <b>Chair:</b> Prof. S.K. Mishra <b>Presenter: CPS-16: PAMT(23-32)</b></p> <ul style="list-style-type: none"> <li>• Neelam Kumari</li> <li>• Rajesh Sangwan</li> <li>• Poonam Redhu &amp; Priyanka</li> <li>• Sheetal Chawla, Jagbir Singh &amp; Urmil</li> <li>• Seema Mehra &amp; Anuradha</li> <li>• Meenakshi &amp; Sumeet Gill</li> <li>• Rahul Hooda</li> <li>• Asha Sangwan, Baljeet Singh &amp; Jagdish Nandal</li> <li>• Savita Rathee</li> <li>• Renu &amp; Pooja Bhatia</li> </ul>	Conference Hall Department of Statistics (DOS)
11:30-01:00	<p><b>Technical Session:05</b> <b>Chair:</b> Dr. Jyoti Dhingra Darbari <b>Presenters:CPS-13: SCM (01-09)</b></p> <ul style="list-style-type: none"> <li>• Uttam Kumar Khedlekar &amp; Priyanka Singh</li> <li>• Uttam Kumar Khedlekar &amp; Ram Kumar Tiwari</li> <li>• Uttam Kumar Khedlekar &amp; Atmaram Nigwal</li> <li>• Aditi &amp; Arshia Kaul</li> <li>• Nomita Pachar &amp; Anshu Gupta</li> <li>• Akansha Jain &amp; Arshia Kaul</li> <li>• Arshia Kaul &amp; Akansha Jain</li> <li>• Reena Nupur, Pallavi Sharma &amp; Sushil Kumar</li> <li>• Pankaj, Vernika Agarwal &amp; Rubina Mittal</li> </ul>	Seminar Hall DOS
11:30-01:00	<p><b>Technical Session:06</b> <b>Chair:</b> Prof. S.N. Dwivedi <b>Presenters: CPS-7: BS (1-9)</b></p> <ul style="list-style-type: none"> <li>• Somesh P Rai, Arinjita Bhattacharyya, Sudhir Srivastava, Divya Srivastava, Xiaoyong Wu , Shesh N. Rai, Anand Seth, Marion McClain &amp; Aruni Bhatnagar</li> <li>• Monika Goel</li> <li>• Alka Sabharwal, Gurprit Grover &amp; Shrawan Kumar</li> <li>• Hariom Pachori, B. Das, Avinash Sharma &amp; Dipanjan Bhattacharjee</li> <li>• Faiz Noor KhanYusufi, Fa Aquil Ahmed&amp; Jamal Ahmad</li> <li>• B Jayakumar &amp; R Elangovan</li> <li>• Ramakrishnan M &amp; Ravanan R</li> </ul>	Computer Lab DOS

	<ul style="list-style-type: none"> <li>• Priyanka Anand &amp; Rahul Gupta Pankaj Kumar, Anil Kumar &amp; V K Chauhan</li> </ul>	
01:00-02:30	<b>Lunch</b>	IHTM Lawn
02:30-04:00	<p><b>Plenary Session-04</b>  <b>Chair:</b> Prof. S.K. Sharma  <b>Speakers</b></p> <ul style="list-style-type: none"> <li>• <b>Prof. A.M. Mathai (CANADA)</b>  <b>Title:</b> On Rectangular Matrix-variate Distributions</li> <li>• <b>Prof. H. N. Nagaraja (USA)</b>  <b>Title:</b> Measuring Agreement in Method Comparison Studies</li> </ul>	Conference Hall IHTM
02:30-04:00	<p><b>Plenary Session-05</b>  <b>Chair:</b> Prof. N. Balakrishna  <b>Speakers</b></p> <ul style="list-style-type: none"> <li>• <b>Prof. Sanjay Shete (USA)</b>  <b>Title:</b> Mediation Analysis in a Case-control Study When the Mediator is a Censored Variable</li> <li>• <b>Prof. Ram Ramanathan (UK)</b>  <b>Title:</b> How can Operational Research and Statistics be Combined to Support Policy Decisions? The Case of Environmental Policy</li> </ul>	Board Room IHTM
02:30-04:00	<p><b>Invited Talk Session:03</b>  <b>Chair:</b> Prof. Sangeeta Arora  <b>Speakers</b></p> <ul style="list-style-type: none"> <li>• <b>Dr. Tianyuan Guan (USA)</b>  <b>Title:</b> Sample Size Calculations in Simple Linear Regression</li> <li>• <b>Dr. Babita Goyal</b>  <b>Title:</b> Stochastic Finance: Applications of Stochastic Calculus in Finance</li> <li>• <b>Prof. R. Elangovan</b>  <b>Title:</b> Stochastic Degradation Process using Accelerated Life Testing</li> </ul>	Smart Room IHTM
02:30-04:00	<p><b>Technical Session: 07</b>  <b>Chair:</b> Dr. M.S. Kadyan  <b>Presenters: CPS-5: RTM (09-17)</b></p> <ul style="list-style-type: none"> <li>• Kuntal Devi and Ashish Kumar</li> <li>• Gitanjali</li> <li>• Indeewar Kumar</li> <li>• Ombir Dahiya &amp; Ashish Kumar</li> <li>• Anju Dhall</li> <li>• Jyoti Goyal &amp; Bal Kishan</li> <li>• V. Kaviyarasu1 &amp; S. Sivasankari</li> <li>• V.J. Munday</li> <li>• Komaldeep Kaur &amp; R.K. Bhardwaj</li> </ul>	Conference Hall (DOS)

02:30-04:00	<b>Technical Session: 08</b> <b>Chair:</b> Prof. Aquil Ahmed <b>Presenters: CPS-1: SI(01-09)</b> <ul style="list-style-type: none"> <li>• Kirandeep Kour</li> <li>• Viswanathan. N &amp; Ravanan. R</li> <li>• Samridhi Mehta &amp; Priyanka Aggarwal</li> <li>• Chandra Prakash Yadav &amp; M. S. Panwar</li> <li>• Abdul Nasir Khan &amp; Zaki Anwar</li> <li>• Ashok Kumar &amp; Jitendra Kumar</li> <li>• Lalpawimawha &amp; Arvind Pandey</li> <li>• Kawsar Fatima &amp; S.P Ahmad</li> <li>• Maneesh Kumar &amp; Devendra Kumar</li> </ul>	Seminar Hall DOS
02:30-04:00	<b>Technical Session:09</b> <b>Chair:</b> Dr. R.K. Bhardwaj <b>Presenters: CPS-13: SCM (10-14) &amp; CPS-15:GVA(01-05)</b> <ul style="list-style-type: none"> <li>• Rahul Solanki &amp; Jyoti Dhingra Darbari</li> <li>• Riju Chaudhary, Jyoti Dhingra Darbari, Vernika Agarwal, &amp; Pankaj Garg</li> <li>• Pallavi Sharma, S C Malik &amp; P C Jha</li> <li>• Rashi Sharma &amp; Jyoti Dhingra Darbari</li> <li>• Nidhi Ahuja, Jyoti Dhingra Darbari &amp; Vernika Agarwal</li> <li>• Kusham Goyat &amp; B.S. Gulia</li> <li>• Kavita &amp; B.S.Gulia</li> <li>• Anil Kumar &amp; B.S. Gulia</li> <li>• Priyanka &amp; B.S. Gulia</li> <li>• Sandeep Kumar &amp; B.S. Gulia</li> </ul>	Computer Lab (DOS)
04:00-04:15	<b>Tea</b>	IHTM & DOS
04:15-05:15	<b>Invited Talk Session:04</b> <b>Chair:</b> Prof. H.C. Taneja <b>Speakers</b> <ul style="list-style-type: none"> <li>• <b>Prof. K. Muralidharan</b>  <b>Title:</b> Some Tests of Hypothesis on Inliers</li> <li>• <b>Prof. S. N. Dwivedi</b>  <b>Title:</b> Methods to Derive Accurate Estimate of Risk Ratio using Binary Regression Models for Nodal Involvement among Oral-cancer Patients</li> </ul>	Conference Hall IHTM
04:15-05:15	<b>Invited Talk Session:05</b> <b>Chair:</b> Prof. David Hangal <b>Speakers</b> <ul style="list-style-type: none"> <li>• <b>Prof. P.R. Vittal</b>  <b>Title:</b> Combinants, Bell Polynomials and their Applications</li> <li>• <b>Prof. N. Balakrishna</b>  <b>Title:</b> Some non-Gaussian Stochastic Volatility Models</li> </ul>	Smart Room IHTM

04:15-05:15	<b>Technical Session:10</b> <b>Chair:</b> Prof. R. Vijayaraghavan <b>Presenter: CPS-1: SI(10-15)</b> <ul style="list-style-type: none"> <li>• Keerthi Astagimath &amp; Parameshwar V.Pandit</li> <li>• Sana &amp; M. Faizan</li> <li>• V.Kaviyarasu &amp; P.Sivakumar</li> <li>• Ankita Sharma &amp; Parmil Kumar</li> <li>• B. Singh, R.U. Khan &amp; M.A.R. Khan</li> <li>• K.Senthamarai Kannan &amp; S.Stephen Raj</li> </ul>	Board Room IHTM
04:15-05:15	<b>Students Project Competition</b> <b>Team: 01 (S.P. Phule University of Pune, Poona, India)</b> Kshitija Bagul, Shraddha More & Madhave Sanap <b>Team: 02 (CUSAT, Cochin, India)</b> Annu T.P. , ANU Susan G. & Harsha <b>Team: 03 (NMIS, Mumbai, India)</b> Prasad Dalvi, Suraj Singh & Yahya Sait	Conference Hall DOS
04:15-05:15	<b>Best Research Paper Presentation</b> <b>BRP-01:</b> Satyanarayana <b>BRP-02:</b> Mohd. Arshad & Omer Abdalghani <b>BRP-03:</b> Harsha S <b>BRP-04:</b> H. Pokhriyal & N. Balakrishna <b>BRP-05:</b> Dadasaheb G. Godase	Seminar Hall DOS
04:15-05:15	<b>AR Kamat Best Thesis Award Presentation</b> <ul style="list-style-type: none"> <li>• Jayant Jha</li> <li>• Nimitha John</li> </ul>	Computer Lab DOS
05:15	<b>AGM of ISPS</b>	Conference Hall DOS
06:30-08:30	<b>Cultural Programme</b>	R.K. Auditorium
08:30-09:30	<b>Conference Dinner</b>	Faculty House

	<b>Day-3 (29-12-2018)</b> <b>(Saturday)</b>	
08:00-9:30	<b>Break Fast</b>	Faculty House
09:30-11:00	<b>Special Invited Session-01</b> <b>Chair:</b> Prof. C. Sateesh Kumar <b>Speakers:</b> Dr. Sanjeev K Tomer & Others <b>Others</b> <ul style="list-style-type: none"> <li>➤ M S Panwar</li> <li>➤ Sachin Chaudhary</li> <li>➤ Rashmi Bundel</li> <li>➤ Jitendra Kumar &amp; Sanjeev K Tomer</li> </ul>	Smart Room IHTM

09:30-11:00	<p><b>Special Invited Session-02 &amp;03</b>  <b>Chair:</b> Prof. Devender Kumar Garg  <b>Speakers</b></p> <ul style="list-style-type: none"> <li>• Venkat Ikkurthy</li> <li>• Dr. Nirpeksh Kumar &amp; Others</li> </ul> <p><b>Others</b></p> <ul style="list-style-type: none"> <li>➤ Amitava Mukherjee</li> <li>➤ Amita Baranwal</li> </ul>	Conference Hall IHTM
09:30-11:00	<p><b>Invited Talk Session-06</b>  <b>Chair:</b> Prof. S.M. Sunoj  <b>Speakers</b></p> <ul style="list-style-type: none"> <li>• <b>Prof. Kalpana K. Mahajan</b>  <b>Title:</b> Some Nonparametric Tests Based on Functions of Sample Quasi Ranges</li> <li>• <b>Prof. Sangeeta Arora</b>  <b>Title:</b> Lorenz and Related Orderings for Some Specific Distributions</li> <li>• <b>Prof. H.C. Taneja</b>  <b>Title:</b> Residual and Past Lifetime Distributions: An Information Theoretic Approach</li> </ul>	Board Room IHTM
09:30-11:00	<p><b>Technical Session:11</b>  <b>Chair:</b> Dr. Ashish Kumar  <b>Presenter: CPS-5: RTM (18-26)</b></p> <ul style="list-style-type: none"> <li>• Mandeep Kaur &amp; R. K. Bhardwaj</li> <li>• Ravinder Singh &amp; R.K. Bhardwaj</li> <li>• Dhiraj Yadav &amp; M.S. Barak</li> <li>• Pradeep Chaudhary</li> <li>• Shikha Bhardwaj &amp; Rajeev Kumar</li> <li>• Akshita Sharma</li> <li>• Jyoti Anand</li> <li>• Ram Niwas</li> <li>• Mohit Yadav, Dalip Singh &amp; Surendra Kumar</li> </ul>	Conference Hall DOS
09:30-11:00	<p><b>Technical Session:12</b>  <b>Chair:</b> Dr. A.K. Malik  <b>Presenter: CPS-15: PAMT(1-9)</b></p> <ul style="list-style-type: none"> <li>• Sudesh Kumari &amp; Renu Chugh</li> <li>• Monika &amp; Savita Rathee</li> <li>• Ridam &amp; Savita Rathee</li> <li>• Jagbir Singh &amp; PrateekMor</li> <li>• M.S. Barak &amp; Vinod Kaliraman</li> <li>• Renu Chugh &amp; Happy Hooda</li> <li>• Manoj Kumar</li> <li>• Anju Panwar &amp; Pinki</li> <li>• Anju Panwar &amp; Monika</li> </ul>	Seminar Hall DOS



09:30-11:00	<b>Technical Session:13</b> <b>Chair:</b> Dr. Jyoti Dhingra Darbari <b>Presenter: CPS-10:OR (1-10)</b> <ul style="list-style-type: none"> <li>• Firoz Ahmad &amp; Ahmad Yusuf Adhami</li> <li>• Srikant Gupta, Irfan Ali &amp; Aquil Ahmed</li> <li>• Neeraj Kumar, Sweta Dahiya &amp; Sanjey Kumar</li> <li>• S. Narayanamoorthy</li> <li>• Adarsh Anand, Jasmine Kaur &amp; Ompal Singh</li> <li>• Adarsh Anand &amp; Mohammed Shahid Irshad</li> <li>• Shivi Agarwal, Trilok Mathur &amp; Swati Goyal</li> <li>• Saroja Kumar Singh &amp; Sarat Kumar Acharya</li> <li>• Omprakash S. Jadhav &amp; K. N. Chinchodkar</li> <li>• G. ManoRanjitham, Sanjey Kumar &amp; Neeraj Kumar</li> </ul>	Computer Lab DOS
11:00-11:30	<b>Tea</b>	IHTM & DOS
11:30-01:00	<b>Invited Talk Session-08</b> <b>Chair:</b> Prof. B.K. Hooda <b>Speakers</b> <ul style="list-style-type: none"> <li>• <b>Prof. Hare Krishna</b>  <b>Title:</b> Censoring Schemes in Life Testing Experiments</li> <li>• <b>Prof. Parameshwar V Pandit</b>  <b>Title:</b> Statistical Inference on Stress-strength Reliability for Inverse Chen and Rayleigh Distributions</li> <li>• <b>Prof. S.M. Sunoj</b>  <b>Title:</b> Some Reliability Aspects of Proportional Hazards Models using Quantile Functions</li> </ul>	Conference Hall IHTM
11:30-01:00	<b>Invited Talk Session-09</b> <b>Chair:</b> Prof. Anwar Husain <b>Speakers</b> <ul style="list-style-type: none"> <li>• <b>Prof. Ashok Shanubhogue</b>  <b>Title:</b> A Method of Constructing Test for the Parameter of Family of Lifetime Distributions under Type-II Censored Sample</li> <li>• <b>Prof. Tirupathi Rao</b>  <b>Title:</b> Evaluation of Treatment's Performance through Stochastic Model for Unorganized Drug Administrations</li> <li>• <b>Prof. C.K. Jaggi</b>  <b>Title:</b> Cost Optimization for the Distribution of Relief Commodity under the Inventory Relief Chain Model</li> </ul>	Board Room IHTM
11:30-01:00	<b>Invited Talk Session-10</b> <b>Chair:</b> Prof. P.C. Jha <b>Speakers</b> <ul style="list-style-type: none"> <li>• <b>Prof. G.C. Mishra</b>  <b>Title:</b> Role of Statistics to Assess Effect of Climate Change on Agriculture</li> <li>• <b>Prof. K.K. Jose</b>  <b>Title:</b> Generalized Skewed Families of Circular Distributions and Their Applications</li> </ul>	Smart Room IHTM

	<ul style="list-style-type: none"> <li>• <b>Prof. S.K. Mishra</b>  <b>Title:</b> Complementary Approximate Karush-Kuhn-Tucker Optimality Conditions</li> </ul>	
11:30-01:00	<p><b>Technical Session:14</b>  <b>Chair:</b> Prof. Vyas Dubey  <b>Presenters: CPS-3: ST (09-16)</b></p> <ul style="list-style-type: none"> <li>• Sd, Jilani, G Srinivasa Rao &amp; A Vasudeva Rao</li> <li>• Neha Singh &amp; Gajendra K. Vishwakarma</li> <li>• Rohan D. Koshti &amp; Kirtee K. Kamalja</li> <li>• Manpreet Singh &amp; Sarbjit Singh Brar</li> <li>• Jasleen Kaur &amp; Gagandeep Kaur</li> <li>• Ravinder Kumar &amp; Sarbjit Singh Brar</li> <li>• Jagmeet Singh Bajwa &amp; Sarbjit Singh Brar</li> <li>• M. Vijaya Lakshmi, O. V. Raja Sekhram &amp; G.V. S. R. Anjaneyulu</li> </ul>	Conference Hall DOS
11:30-01:00	<p><b>Technical Session:15</b>  <b>Chair:</b> Dr. Jitender Kumar  <b>Presenter: CPS-5: RTM (27-35)</b></p> <ul style="list-style-type: none"> <li>• Sudesh K. Barak</li> <li>• Anil Dhankhar</li> <li>• Amit Kumar &amp; S.C. Malik</li> <li>• D.S. Vashisth</li> <li>• Upma</li> <li>• Savita Deswal</li> <li>• Babasaheb K. Thorve &amp; Raosaheb V. Latpate</li> <li>• Darpandeep Kour &amp; J P Singh Joorel</li> <li>• Rajeev Kumar &amp; Reena</li> </ul>	Seminar Hall DOS
11:30-01:00	<p><b>Technical Session:16</b>  <b>Chair:</b> Prof. B.S. Biradar  <b>Presenter: CPS-1: SI(16-24)</b></p> <ul style="list-style-type: none"> <li>• Indrajeet Kumar &amp; Kapil Kumar</li> <li>• Anurag Pathak &amp; Manoj Kumar</li> <li>• Mohammed H AbuJarad</li> <li>• K. Senthamarai Kannan &amp; G. Sampath</li> <li>• Firdoos Yousuf &amp; Athar Ali Khan</li> <li>• Afaq Ahmad, S.P Ahmad &amp; A.Ahmed</li> <li>• Jagmohan Singh Dhakar, Hariom Pachori, Mohit Thukral &amp; Shivam Dixit</li> <li>• Priyanka Sahni &amp; Rajeev Kumar</li> <li>• Neetu, Priyanka Sahni &amp; Rajeev Kumar</li> </ul>	Computer Lab DOS
01:00-02:30	<b>Lunch</b>	IHTM Lawn

02:30-04:00	<p><b>Invited Talk Session-11</b>  <b>Chair:</b> Prof. P.R. Vital  <b>Speakers</b></p> <ul style="list-style-type: none"> <li>• <b>Prof. B.K. Hooda</b>  <b>Title:</b> Applications of Jackknife and Bootstrap Methods in Statistical Inference</li> <li>• <b>Prof. C. Satheesh Kumar</b>  <b>Title:</b> Families of Discrete Distributions of Order k</li> <li>• <b>Prof. B.S. Biradar</b>  <b>Title:</b> Bayesian Estimation of the Scale Parameter of the Weibull Distribution Using Ranked Set Sampling with Unequal Samples</li> </ul>	Conference Hall IHTM
02:30-04:00	<p><b>Invited Talk Session-12</b>  <b>Chair:</b> Prof. Ashok Shanubhogue  <b>Speakers</b></p> <ul style="list-style-type: none"> <li>• <b>Dr. Anbupalam Thalamuthu (Australia)</b>  <b>Title:</b> Genetics of Exceptional Longevity Using Summary Statistics from Genome-wide Association Studies</li> <li>• <b>Prof. Gajendra K. Vishwakarma</b>  <b>Title:</b> Gene Expression Data Analysis Using Bayesian State-Space Modeling</li> <li>• <b>Dr. R. Ravanan</b>  <b>Title:</b> Structural Equation Model and its Applications using Analysis of Moment Structure (AMOS)</li> </ul>	Board Room IHTM
02:30-04:00	<p><b>Invited Talk Session-13</b>  <b>Chair:</b> Prof. C.K. Jaggi  <b>Speakers</b></p> <ul style="list-style-type: none"> <li>• <b>Prof. R. Vijayaraghavan</b>  <b>Title:</b> Construction of Life Test Sampling Inspection Plans – An Overview</li> <li>• <b>Dr. P. Arumugam</b>  <b>Title:</b> Order Determination of Autoregressive Time Series Model-Bayesian Approach</li> <li>• <b>Dr. Nagesh Kumar Siddu</b>  <b>Title:</b> A Method for Building Persona Based Emotional Conversational Agents</li> </ul>	Smart Room IHTM
02:30-04:00	<p><b>Technical Session:17</b>  <b>Chair:</b> Dr. M.S. Kadiyan  <b>Presenters: CPS-2: MAET (01-09)</b></p> <ul style="list-style-type: none"> <li>• S. D. Pawar &amp; D. T. Shirke</li> <li>• Vinod Kumar</li> <li>• Mohit Thukral, Hariom Pachori, Shivam Dixit &amp; Jagmohan Singh Dhakar</li> <li>• Zuber Akhter</li> <li>• Reetu Goel &amp; Bhupendra Singh</li> <li>• Kapil Kumar</li> <li>• Rajni Goel &amp; Hare Krishna</li> <li>• Neha Goel &amp; Hare Krishna</li> </ul>	Conference Hall DOS

	<ul style="list-style-type: none"> <li>• Renu Garg, Hare Krishna &amp; Madhulika Dube</li> </ul>	
02:30-04:00	<p><b>Technical Session:18</b>  <b>Chair:</b> Prof. Hare Krishna  <b>Presenters: CPS-1: SI(25-33)</b></p> <ul style="list-style-type: none"> <li>• Savita &amp; Rajeev Kumar</li> <li>• Gajendra K. Vishwakarma &amp; Shubham Gupta</li> <li>• M. Vijaya Lakshmi , O. V. Raja Sekhram &amp; G.V. S. R. Anjaneyulu</li> <li>• M. Vijaya Lakshmi, O. V. Raja Sekhram &amp; G.V. S. R. Anjaneyulu</li> <li>• Jitendra Kumar &amp; Sanjeev K. Tomer</li> <li>• Samadrita Bera &amp; Nabakumar Jana</li> <li>• Nadiminti Nagamani &amp; Manas Ranjan Tripathy</li> <li>• Ritu Kumari, Kalpana K. Mahajan &amp; Sangeeta Arora</li> <li>• Sumit Kumar, Sanku Dey &amp; Mahendra Saha</li> </ul>	Seminar Hall DOS
02:30-04:00	<p><b>Technical Session:19</b>  <b>Chair:</b> Dr. R.K. Bhardwaj  <b>Presenters: CPS-5: RTM (36-44)</b></p> <ul style="list-style-type: none"> <li>• Neeraj &amp; M.S. Barak</li> <li>• Shruti Chaudhary, Parul &amp; Dheeraj Pawar</li> <li>• Divesh Garg, Reena Garg &amp; Anju Dhall</li> <li>• Shalini Jindal, Reena Garg &amp; Tarun Garg</li> <li>• Dalip Singh &amp; Pinki</li> <li>• Sudesh Kumari &amp; Rajeev Kumar</li> <li>• Bushra Khatoon &amp; M.J.S. Khan</li> <li>• Princy &amp; Rajeev Kumar</li> <li>• Ashok Kumar &amp; Dheeraj Pawar</li> </ul>	Computer Lab DOS
04:00-04:30	<b>Tea</b>	IHTM & DOS
04:30-06:00	<p><b>Invited Talk Session-14</b>  <b>Chair:</b> Prof. Vyas Dubey  <b>Speakers</b></p> <ul style="list-style-type: none"> <li>• <b>Prof. D.K Garg</b>  <b>Title:</b> m - Associate PBIB Designs using Youden-m Squares</li> <li>• <b>Prof. Ramesh Verma (PGIMS)</b>  <b>Title:</b> Evaluate the Association between Transmissions of Soil-Transmitted Helminths with Personal Habits among Rural School Children</li> <li>• <b>Dr. Alka Sabharwal</b>  <b>Title:</b> Handling Retrospective and Cross sectional Data in Biomedical Studies with Statistical Modelling</li> </ul>	Board Room IHTM
04:30-06:00	<p><b>Invited Talk Session-15</b>  <b>Chair:</b> Prof. Parmeshwar V. Pandit  <b>Speakers</b></p> <ul style="list-style-type: none"> <li>• <b>Dr. M.S. Kadyan</b>  <b>Title:</b> Performance Analysis of Butter-Oil (Ghee)</li> </ul>	Conference Hall IHTM

	<p>Producing System of Milk Plant using Supplementary Variable Technique</p> <ul style="list-style-type: none"> <li>• <b>Dr. R.K. Bhardwaj</b> <b>Title:</b> On Reliability of a Constrained Renewable System</li> <li>• <b>Dr. A.K. Malik</b> <b>Title:</b> An Inventory Model with Quadratic Demand and Deteriorating Products for Maximum Life Time under Two Warehouses</li> <li>• <b>Dr. Jitender Kumar</b> <b>Title:</b> Profit Analysis of Paneer Producing System of Milk Plant using Arbitrary Distributions</li> </ul>	
04:30-05:00  05:00-06:00	<p><b>Invited Talk</b> <b>Speaker:</b> Dr. Ashish Kumar <b>Title:</b> Stochastic Modeling and Sensitivity Analysis of an Integrated Hardware-Software System Subject to Different Weather Conditions</p> <p><b>Technical Session:20</b> <b>Chair:</b> Dr. Ashish Kumar <b>Presenters: CPS-5: RTM (45-51)</b></p> <ul style="list-style-type: none"> <li>• Chhama Aggarwal &amp; S.C. Malik</li> <li>• Ramesh Kumar &amp; S.C. Malik</li> <li>• Permila</li> <li>• Adarsh Anand, Priyanka Gupta &amp; Deepti Aggrawal</li> <li>• Nitika Ahlawat &amp; S.C. Malik</li> <li>• Arvind Pandey</li> <li>• Pooja Jain &amp; Dheeraj Pawar</li> </ul>	Smart Room IHTM
04:30-06:00	<p><b>Technical Session:21</b> <b>Chair:</b> Prof. D.S. Hooda <b>Presenters:CPS-12: IT(01-09)</b></p> <ul style="list-style-type: none"> <li>• S.Geetha &amp; S.Narayanamoorthy</li> <li>• Ahteshamul Haq, Srikant Gupta &amp; Irfan Ali</li> <li>• Vikas Kumar, Gulshan Taneja &amp; Samsher Chhoker</li> <li>• Pratiksha Tiwari</li> <li>• Shivangi Singh&amp; Chanchal Kundu</li> <li>• Omdutt Sharma</li> <li>• Omdutt Sharma, Sonia &amp; Priti Gupta</li> <li>• Murshid Kamal, Ahteshamul Haq, Srikant Gupta &amp; Irfan Ali</li> <li>• Shivam Dixit, Jagmohan Singh Dhakar, Hariom Pachori&amp; Mohit Thukral</li> </ul>	Conference Hall DOS
04:30-06:00	<p><b>Technical Session:22</b> <b>Chair:</b> Dr. M.S. Barak <b>Presenters:CPS-16: PAMT (10-18)</b></p> <ul style="list-style-type: none"> <li>• Jyoti Rani &amp; Seema Mehra</li> <li>• Anju Panwar &amp; Anita</li> <li>• Seema Mehra &amp; Monia</li> </ul>	Seminar Hall DOS

	<ul style="list-style-type: none"> <li>• Sheetal Chawla, Jagbir Singh &amp; Nikita Tehlan</li> <li>• Meenakshi Gugnani</li> <li>• Ritika</li> <li>• Kusum Dhingra</li> <li>• Roji Lather</li> <li>• Lalji</li> </ul>	
04:30-06:00	<b>Technical Session:23</b> <b>Chair:</b> Dr. R.K. Bhardwaj <b>Presenter: CPS-8: PDT (01-07) &amp; CPS-16:PAMT(19-22)</b> <ul style="list-style-type: none"> <li>• Bilal Ahmad Para &amp; Tariq Rashid Jan</li> <li>• Kaisar Ahmad &amp; S.P. Ahmad</li> <li>• Aafaq Ahmad Rather &amp; C. Subramanian</li> <li>• C. Subramanian</li> <li>• Aaliya Sayeed</li> <li>• Banoth Veeranna</li> <li>• Manjunath, B G</li> <li>• Vishvajit &amp; Manju Pruthi</li> <li>• Savita Rathee &amp; Reetu Bala</li> <li>• Priyanka Rani &amp; Savita Rathee</li> </ul> <p style="text-align: right;">Jagbir Singh &amp; Kuldeep</p>	Computer Lab DOS
08-00-09:30	<b>Dinner</b>	Faculty House

	<b>Day-4 (30-12-2018)</b> <b>(Sunday)</b>	
08:00-9:30	<b>Break Fast</b>	Faculty House
09:30-11:00	<b>Technical Session:24</b> <b>Chair:</b> Prof. D.K. Garg <b>Presenters: CPS-1: SI(34-38) &amp; CPS-6: DOE(01-05)</b> <ul style="list-style-type: none"> <li>• Bhatt Milind. B. &amp; Patel S. R.</li> <li>• Hummara Sultan</li> <li>• Peer Bilal Ahmad</li> <li>• Devendra Kumar</li> <li>• Mansoor Rashid Malik &amp; Devendra Kumar</li> <li>• Poonam Singh, Vandana Sarin &amp; Neha Midha</li> <li>• Parneet Kaur &amp; Davinder Kumar Garg</li> <li>• Parul Saini, Chetan &amp; Ratna Raj Laxmi</li> <li>• Vikas Kumar &amp; R. R. Laxmi</li> <li>• Sarita Saini &amp; R.R. Laxmi</li> </ul>	Conference Hall IHTM
09:30-11:00	<b>Technical Session:25</b> <b>Chair:</b> Dr. Sarabjeet Singh <b>Presenters: CPS-3: ST (17-23) &amp; CPS-14: DAPS(1-5)</b> <ul style="list-style-type: none"> <li>• Rajesh Singh &amp; Supriya Khare</li> <li>• G. N. Singh &amp; M. Usman</li> </ul>	Smart Room IHTM

	<ul style="list-style-type: none"> <li>• G. N. Singh, A. K. Pandey &amp; A. K. Jaiswal</li> <li>• Med Ram Verma</li> <li>• Gajendra K. Vishwakarma, Abhishek Singh &amp; Sayed Mohammed Zeeshan</li> <li>• V. Kaviyarasu &amp; V. Devika</li> <li>• N. K. Sajeev kumar</li> <li>• Monika Sethi, Abhishek Vishwakarma &amp; Tanay Ojha</li> <li>• Jayanta Deb, Tapan Kumar Chakrabarty</li> <li>• Nitin Tanwar &amp; B. K. Hooda</li> <li>• Himani Nanda &amp; V.K. Shivgotra</li> <li>• Apurba Vishal Dabgotra &amp; Sunil kumar</li> </ul>	
09:30-11:00	<p><b>Technical Session:26</b>  <b>Chair:</b> Dr. Jitender Kumar  <b>Presenters: CPS-5: RTM (52-63)</b></p> <ul style="list-style-type: none"> <li>• Vikas Garg &amp; M.S. Kadyan</li> <li>• Jyoti Nandal</li> <li>• Ramandeep Kaur &amp; Stuti Arora</li> <li>• Parveen Kumari , M.S. Kadyan &amp; Jitender Kumar</li> <li>• Rita &amp; M.S. Kadyan</li> <li>• Thomas Xavier &amp; Joby K. Jose</li> <li>• S.K. Chauhan &amp; S.C. Malik</li> <li>• N. Nandal &amp; S.C. Malik</li> <li>• Ramesh Kumar</li> <li>• Naveen Kumar &amp; S.C. Malik</li> <li>• Arun Kumar, Pardeep Goel &amp; Deepika Garg Promila</li> </ul>	Board Room IHTM
09:30-11:00	<p><b>Technical Session:27</b>  <b>Chair:</b>Dr. Monika Saini  <b>Presenters:CPS-11: TSAS(1-9)</b></p> <ul style="list-style-type: none"> <li>• Nimitha John &amp; N.Balakrishna</li> <li>• Jitendra Kumar &amp; Varun Agiwal</li> <li>• Joginder Kumar</li> <li>• V. K. Chaudhary</li> <li>• K. Senthamarai Kannan &amp; M.Velusamy</li> <li>• Kadek Jemmy Waciko &amp; Ismail, B</li> <li>• Vikash kumar</li> <li>• Ekta Hooda &amp; B K Hooda</li> <li>• Deepika Verma &amp; Joginder Kumar</li> </ul>	Conference Hall DOS
09:30-11:00	<p><b>Technical Session:28</b>  <b>Chair:</b> Dr. D.K. Sharma (Guna)  <b>Presenter: CPS-12: IT(10-17)</b></p> <ul style="list-style-type: none"> <li>• Rajesh G.</li> <li>• Shivi Agarwal &amp; Trilok Mathur</li> <li>• Irshad M R</li> <li>• Ashiq Hussain Bhat</li> <li>• Alka Rani, Omdutt Sharma &amp; Priti Gupta</li> </ul>	Seminar Hall DOS

	<ul style="list-style-type: none"> <li>• D.K. Sharma</li> <li>• H. P. Umap</li> <li>• Manmath Haridasrao Lohgaonkar</li> </ul>	
09:30-11:00	<p><b>Technical Session:29</b>  <b>Chair:</b> Prof. Anwar Husain  <b>Presenters: CPS-7: BS (10-17)</b></p> <ul style="list-style-type: none"> <li>• Lavanya Ravichandran, Mathavan Muthaiyan &amp; Amouda Venketesan</li> <li>• Anjana Rajagopal. MathavanMuthaiyan &amp; Amouda Venketesan</li> <li>• M.Parthiban &amp; G. Prabavathy</li> <li>• Anvesha, B.M.Vashisht, Himanshu Bhardwaj</li> <li>• Nilima &amp; Shesh N. Rai</li> <li>• GinniAgrawal, Ramesh Verma, Piyush Jain</li> <li>• Shishir Kumar Jha</li> <li>• Sarika Yadav &amp; Pardeep Khanna</li> </ul>	Computer Lab DOS
11:00-11:30	<b>Tea</b>	IHTM
11:30-01:00	<p><b>Technical Session:30</b>  <b>Chair:</b> Dr. M.S. Kadiyan  <b>Presenters:CPS-4: SPQT (1-10)</b></p> <ul style="list-style-type: none"> <li>• K. Senthamarai Kannan &amp; A. Mohamed Ashik</li> <li>• Arijit Patra &amp; Chanchal Kundu</li> <li>• Amin ShakaAunali &amp; D. Venkatesan</li> <li>• Gulab Singh Bura</li> <li>• Anand Swaroop Pandey</li> <li>• G. Paulraj, N. Paranjothi &amp; R. Sivasamy</li> <li>• Neelam Singla &amp; Sonia Kalra</li> <li>• Amit Jain</li> <li>• Arumugam, P &amp; Karthik, S.M</li> <li>• E. Sabarimalai &amp; N. Pukazhenth</li> </ul>	Conference Hall IHTM
11:30-01:00	<p><b>Technical Session:31</b>  <b>Chair:</b> Dr. Indever Kumar  <b>Presenters: CPS-14: DAPS(6-14)</b></p> <ul style="list-style-type: none"> <li>• Monika &amp; Chhavi Rana</li> <li>• S. Keerthivarman &amp; G. Kumarapandiyan</li> <li>• Raj Mishra</li> <li>• Anchal &amp; Pooja Mittal</li> <li>• Naresh Kumar</li> <li>• Suman Kharb</li> <li>• Sheela Kumari</li> <li>• Vishal Singh</li> <li>• Vishal Singh</li> </ul>	Smart Room IHTM



11:30-01:00	<b>Technical Session:32</b> <b>Chair:</b> Prof. C. Satheesh Kumar <b>Presenters:CPS-11: TSAS(10-18)</b> <ul style="list-style-type: none"> <li>• Nand Kishore singh &amp; Neha Nehra</li> <li>• Monika Saini &amp; Ashish Kumar</li> <li>• Abhilasha Bhardwaj</li> <li>• Nisha Sumbherwal, Mohit Nain, D.R. Aneja &amp; B.K Hooda</li> <li>• Tribhuvan Singh &amp; Nirpeksh Kumar</li> <li>• Shivani Gupta &amp; Sangeeta Bansal</li> <li>• Muthukrishnan R. &amp; N.Udaya Prakash</li> <li>• Poonam Godara, B.K. Hooda &amp; Ram Avtar</li> <li>• Sanjeet Singh, Sanjay Kumar Jha &amp; Anita Punia</li> </ul>	Board Room IHTM
01:00-02:00	<b>Valedictory Function</b>	Conference Hall IHTM
02:00 PM	<b>Lunch</b>	IHTM Lawn

### Note

- CPS-1: Statistical Inference (SI)
- CPS-2: Multivariate Analysis and Estimation Theory (MAET)
- CPS-3: Sampling Theory (ST)
- CPS-4: Stochastic Process and Queuing Theory (SPQT)
- CPS-5: Reliability Theory and Modelling (RTM)
- CPS-6: Design of Experiment (DOE)
- CPS-7: Bio Statistics (BS)
- CPS-8: Probability and Distribution Theory (PDT)
- CPS-9: Statistical Quality Control (SQC)
- CPS-10: Operation Research (OR)
- CPS-11: Time Series and Applied Statistics (TSAS)
- CPS-12: Information Theory (IT)
- CPS-13: Supply Chain Management (SCM)
- CPS-14: Data Analytics and Population Studies (DAPS)
- CPS-15: Geometrical Visual Arts (GVA)
- CPS-16: Pure and Applied Mathematics (PAMT)