

SECTION		MATHEMATICAL SCIENCES (including STATISTICS)
Sectional President		Prof. Ashis SenGupta, Indian Statistical Institute, Kolkata
Local Sectional Secretary		Dr. Binod Kumar Sahoo, NISER, Bhubaneswar
Sectional Recorder		Dr. S. Ahmad Ali, B B D NIT & M, Lucknow
January 04, 2012		
Venue : Campus-3, Hall C11, KIIT University		
14:00-17:30		
Presidential Address		Ashis SenGupta, ISI, Kolkata <i>Directional Statistics: Meeting Challenges from Multidisciplinary Research</i>
Special Invited Lecture		S.P. Mukherjee, IAPQR, Kolkata <i>Modelling - an Integral Input for Inferenceing</i>
Platinum Jubilee Lecture		Rahul Mukerjee, IIM, Kolkata <i>Probability Matching Priors for Empirical and Related Likelihoods</i>
Young Scientist Award presentations		Dilip Kumar, Centre for Mathematical Sciences, Pala <i>Pathway Model and Its Application in Reaction Rate Theory in Astrophysics and Applied Analysis</i> S. Kayal¹ and S. Kumar², ¹IIT Bombay, ²IIT Kharagpur <i>Estimating Entropy of Several Exponential Populations with Common Location and Unknown Scales</i>
Special Invited lectures IL-1		
Venue : Campus-3, Hall C11, KIIT University		
		J.V. Deshpande, IIT Bombay <i>Bounds for Reliability and Mean Life of Coherent Systems of Positively Ageing Components</i>
		S.B. Nimse, SRTM University, Nanded <i>History of Set Theory and Its Extensions in the Context of Soft Computing</i>
Invited Sessions (IS-S1)-Financial Data Analysis		
Venue : Campus-3, Hall C10, KIIT University		
		Samarjit Das ISI, Kolkata <i>Is the Relative Risk Aversion Parameter Constant Over Time? A Multi-country Study</i>
		K.K. Jose, Kanichukattu Mahatma Gandhi University, Pala <i>On Autoregressive Processes and Financial Modelling: Recent</i>

	<i>Developments and challenges</i>
	U.V. Naik , Nimbalkar University of Pune, Pune <i>Copula-Based Autoregressive Conditional Duration Models</i>
	T.V. Ramanathan , University of Pune, Pune <i>Time Varying Conditional Heteroscedastic Models: Some Recent Developments</i>
Invited Sessions (IS-S2) Management Science	
Venue : Campus-3, Hall C12, KIIT University	
	R. B. Barman , Ex-Reserve Bank of India, Mumbai <i>Asset-Liability Management in Indian Banking: A Brief Overview</i>
	Arnab K. Laha , IIM, Ahmadabad <i>Quantitative Explorations of Indian Stock Markets</i>
	Ganapati Panda , IIT, Bhubaneswar <i>Application of Intelligent Techniques to Management Science</i>
	Rudra P. Pradhan , IIT, Kharagpur <i>Unit Roots and Structural Break Points in India's Finance-Growth Nexus</i>
SECTIONAL COMMITTEE ELECTION	

January 05, 2012	
14:00-17:30	
Symposium: Directional Statistics in Interdisciplinary Research for Addressing National Challenges	
Special Invited lectures IL-2	
Venue : Campus-3, Hall C11, KIIT University	
	Keh-Shin Lii , University of California, Riverside, USA <i>Stochastic Process with Almost Periodic Structure</i>
	A.M. Mathai , McGill University, Canada <i>Optimization of Entropy in Matrix-variate Case and Pathway Idea</i>
Invited Sessions (IS-S3) Directional and Economic Statistics	
Venue : Campus-3, Hall C10, KIIT University	

	Gopal Krishna Basak, Mrinal K. Ghosh and Diganta Mukherjee, ISI, Kolkata <i>Can the Big Traders Influence Stock Market?</i>
	H.V. Kulkarni ¹ and D.N. Kalange ^{2,1} Shivaji University, Kolhapur, ² A.C.S College, Sangli <i>Skewed Bivariate von Mises Distribution</i>
	A.V. Dattatreya Rao ¹ , S.V.S.Girija ² and Y. Phani ^{3,1} Acharya Nagarjuna University, Guntur, ² Hindu College, Guntur, ³ Swarnandhra College of Engineering and Technology, Narasapur <i>A Note on Stereographic Weibull Model</i>
	Xiangdong Long ¹ Liangjun Su ² and Aman Ullah ^{3,1} Singapore Management University, Singapore, ² University of Cambridge, U.K., ³ University of California, Riverside, USA <i>Estimation and Forecasting of Dynamic Conditional Covariance: A Semi-parametric Multivariate Model</i>
Invited Sessions (IS-S4) Distributions: Characterizations and Inference	
Venue : Campus-3, Hall C12, KIIT University	
	Chandranath Pal ¹ and Ashis SenGupta ^{2,1} Kalyani University, ² ISI, Kolkata <i>On Optimal Tests for Multi-parameter Hypotheses in Possibly Multi-component Mixtures</i>
	PG Sankaran, CUSAT, Cochin <i>Total Time on Test Transforms</i>
	S. M. Sunoj, CUSAT, Cochin <i>Quantile Based Entropy Function</i>
	Baris Surucu, Middle East Technical University, Ankara Turkey <i>Goodness-of-Fit Tests for Univariate and Multivariate Distributions</i>
	Neeraj Tiwari and Girish Chandra, Kumaon University, Almora A <i>Systematic Approach for Unequal Allocations under Ranked Set Sampling with Skew Distributions</i>
Symposium: Mathematical Innovations with Real-life Applications for National Excellence	
Invited Sessions (IS-M1) Space Dynamics	
Venue : Campus-3, Hall C11, KIIT University	
	B. Ishwar , Bihar University, Muzaffarpur <i>Nonlinear Stability in Generalized Photo-gravitational Restricted Three Body Problem</i>
	Badam Singh Kushvah , Indian School of Mines, Dhanbad <i>Periodic Orbits in the Photogravitational Chermnykh-Like Problem</i>
	Bijay K. Sharma, IIT, Patna <i>A Fractal / Primary-centric View of the Universe - A Post Copernican Conjecture</i>

	J. Viswakrama , D.D.U. Gorakhpur University, Gorakhpur <i>Piston-Driven Cylindrical Shock Wave in Self-Gravitating and Rotating Atmospheres with Heat Transfer Effects</i>
Fulbright Presentation	S. Das , US-India Educational Foundation, New Delhi <i>Fulbright Nehru Fellowship Opportunity to the U.S.</i>
Oral Presentations (OM-A1)	
Venue : Campus-3, Hall C10, KIIT University	
	P. N. Agrawal and Karunesh Kumar Singh, IIT, Roorkee <i>Degree of Approximation by Iterates of Post-Widder Operators</i>
	Bhawani Rani Das , M.D.D.M College (B.R.A. Bihar University), Muzaffarpur <i>Linear Oscillation of the Inter-Connected Satellite under the Perturbative Forces About the Position of Equilibrium for Small Eccentricity Near the Parametric</i>
	Sumanta Kumar Das, DRDO, New Delhi <i>Satellite Data Classification Using Fuzzy C means Clustering Combined with Fuzzy Supervised Classification</i>
	Susil Kumar Jena, KIIT University, Bhubaneswar <i>Method of Infinite Ascent Applied on $A^4 \pm nB^3 = C^2$</i>
Oral Presentations (OM-B1)	
Venue : Campus-3, Hall C12, KIIT University	
	¹ Rajeev Kishore Pandey and ² Arif Nadeem ¹ Dronacharya College of Engg., Gr. Noida, ² Bareilly College, Bareilly <i>Re-Formulation of Logic Based Generalized Disjunctive Programming Problem</i>
	Pushap Lata, Govt. College, Arki, Solan <i>Thermal Instability of Walters' (Model B') Fluid Permeated with Suspended Particles in Porous Medium with Variable Gravity</i>
	Bijay Kumar Mandal and Kumar Saurabh, Vidya Vihar Institute of Technology, Purnea <i>Study of Gravitational Lensing Constraints on the Cardassian Model Based on the Friedmann Equation</i>
	B. Mishra Birla Institute of Technology and Science-Pilani, Hyderabad <i>Bianchi Type V False Vacuum Cosmological Model in Scale Invariant Theory</i>
	Bani Mukherjee ¹ , Bijay Kumar Mandal ² and Kumar Saurabh ³ ¹ Indian School of Mines, Dhanbad, ² Indian School of Mines, Dhanbad, ³ V. V. I. T. , Purnea <i>Numerical Study of Gravitational Lensing Focusing on the Differential Probability, Total Optical Depth and Distribution of Image Angular</i>

	<i>Separations</i>
Oral Presentation (OS-1)	
Venue : Campus-3, Hall C11, KIIT University	
	S. Bagh ¹ , S. Kerketta ² and R. Gartia ^{3 1,2} Ministry of Environment and Forests, ERO, Bhubaneswar, ³ Sambalpur University, Orissa <i>Effects of Meteorological Parameters on Ambient Air Quality Noise in and Around A Chromites Mining Complex – A Statistical Approach</i>
	Moinak Bhaduri, and Ashis SenGupta ISI, Kolkata <i>On the Characterization of Maxent Density Functions under Non Shannon Entropies and Some Related Problems</i>
	Monika Bhattacharjee and Ashis SenGupta ISI, Kolkata <i>Entropy Measurement of Some Circular Probability Distributions and Study of the Inference Problems for These Measurements</i>
	Samayita Bhattacharjee and Shreyan Ganguly St. Xavier's College, Kolkata <i>Snakes and Ladders: The Markov Way</i>
	Subarna Bhattacharjee and Satya K. Misra KIIT University, Bhubaneswar <i>On Posbist Reliability Theory</i>
	P.R. Dash and G. Mishra Utkal University, Bhubaneswar <i>On Modified Exponential Estimators for Finite Population Mean in Double Sampling</i>
	Ratul Datta, University of Calcutta, Kolkata <i>A Statistical Analysis of Women Awareness</i>
Poster Presentation (PS-1)	
Poster Presentation (PM1)	

January 06, 2012

Symposium: Mathematical Innovations with Real-life Applications for National Excellence

Special Invited lectures IL-3

14:00-17:30

Venue : Campus-3, Hall C11, KIIT University	
	Hira L. Koul, Michigan State University, USA <i>Model Diagnostics in the Presence of Incomplete Observations</i>
	G.P. Patil, Penn State University, USA <i>Digital Governance and Surveillance Hotspot Geo-Informatics for Monitoring, Etiology, Early Warning and Sustainable Development with Applications to Natural and Environmental Resources</i>
Invited Sessions (IS-S5) Case Studies	
Venue : Campus-3, Hall C11, KIIT University	
	L.V. Krishnan TAM Media Research Pvt. Ltd, Mumbai <i>Transcending the Multicultural Indian Landscape with Technology & Measurement Science</i>
	Pulakesh Maiti ISI, Kolkata <i>Statistical Information System Developed for Local Level Planning with an Application to Two Blocks in the District of Howrah, West Bengal</i>
	Barun Mukhopadhyay ISI, Kolkata <i>Anthropometric Study of a Population in Kalimpong</i>
	Manju Pandey BHU, Varanasi <i>Ganga Water Quality in Varanasi Water Quality Index and ARIMA Model</i>
	Premananda Bharati and Manoranjan Pal ISI, Kolkata <i>Gender Inequality in the Average Consumption of Calories in India</i>
Invited Sessions (IS-S6) Decision Theory	
Venue : Campus-3, Hall C10, KIIT University	
	Somesh Kumar IIT, Kharagpur <i>Estimation of Restricted Parameters in Normal and Exponential Distributions</i>
	A.K. Mahapatra ¹ , Somesh Kumar ² and P. Vellaisamy ³ ¹ ITER, Siksha O Anusandhan University, Bhubaneswar, ² IIT Kharagpur ³ IIT Bombay <i>Estimation of the Hazard Rates from Exponential Populations</i>
²	Manas Ranjan Tripathy ¹ and Somesh Kumar ¹ NIT Rourkela, ² IIT Kharagpur <i>Estimating the Common Mean and Quantiles of Two Normal Populations</i>
	Yogesh Mani Tripathi ¹ , Somesh Kumar ² and C. Petropoulos ³ ¹ IIT, Patna ² IIT, Kharagpur , ³ University of Patras, Rio, Greece <i>Estimation of a Restricted Location Parameter of an Exponential Distribution</i>
Invited Sessions (IM-M2) Topics in Mathematics I	
Venue : Campus-3, Hall C10, KIIT University	
	U. C. De, Calcutta University, Kolkata <i>On Three Dimensional Trans-Sasakian Manifolds</i>

	Pabitra Pal Choudhury, Souvik Naskar and Avishek Ghosh ISI, Kolkata <i>Application of Integral Value Transformation in a Specialized Computer Network Design</i>
	P.D. Srivastava and B.L. Panigrahi IIT, Kharagpur <i>Spectrum and Fine Spectrum of Generalized Second Order Difference Operator $\Delta_{uvw}^2 \Delta_{uvw}^2 l_1 l_1$</i>
Symposium: Directional Statistics in Interdisciplinary Research for Addressing National Challenges (
Invited Sessions (IS-S7) Measuring and Combining Indicators for Monitoring Environmental Sustainability	
Venue : Campus-3, Hall C12, KIIT University	
	Nilkanth Ghosh Ministry of Environment and Forests, Govt. of India, New Delhi <i>Some Important Environmental Issues and Recent Governmental Initiatives in India</i>
	SD Gore and Rajendra Gurao University of Pune, Pune <i>Hotspot Detection Using Different Sampling Designs: A Comparative Study of Efficiency</i>
	Arun K Sinha ¹ and Ashbindu Singh ² ¹ Patna University, Patna ² UNEP Division of Early Warning & Assessment, Washington, USA <i>Human Environment Index</i>
	Pankaj Srivastava ¹ and Arun K Sinha ² ¹ Govt. of India, New Delhi ² Patna University, Patna <i>Spatial Statistical Methods in Environmental Epidemiology</i>
Invited Sessions (IS-S8) Sample Survey	
Venue : Campus-3, Hall C11, KIIT University	
	Hukum Chandra IGSRI, New Delhi <i>Semi-parametric Block Bootstrap Approach for Multilevel Data</i>
	Arijit Chaudhuri ISI, Kolkata <i>Analyzing Optional Randomized Response on Qualitative & Quantitative Variables Bearing Social Stigma</i>
	Sanjay Chaudhuri National University of Singapore, Singapore <i>Empirical Likelihood for Small Area Estimation</i>
	Bikas Sinha ISI, Kolkata <i>Estimation of the Size of a Finite Population</i>
Invited Sessions (IS-S9) Official Statistics	
Venue : Campus-3, Hall C10, KIIT University	

	Kuttykrishnan A. P. ,Kannur University, Kerala <i>Autoregressive Process Using Laplace Variables</i>
	Manoranjan Pal and Premananda Bharati ISI, Kolkata <i>Estimating Calorie-Poverty Rates Through Regression</i>
	R N Pandey,Ministry of Tourism, Government of India, New Delhi <i>Extent of Invisibility of Women in India in the Official Work-Force Estimates</i>
	Arni S.R. Srinivasa Rao ISI, Kolkata <i>Mathematical Models in National Policy Formulations</i>
	Ashok Sarkar ,ISI, Mumbai <i>Brand Trust Index-A Measure of Trust of Brands</i>
Oral Presentation (OM-A2)	
Venue : Campus-3, Hall C11, KIIT University	
	Nilam ¹ and Manoj Kumar ² ¹ Delhi Technological University, Delhi ² DRDO, New Delhi <i>Analytical and Numerical Analysis of Countercurrent Exchange Mechanism in Renal Vasa Recta System</i>
	A.L. Pathak ¹ , K.K. Dixit ² and Aradhana Singh ³ ¹ Brahmanand College, Kanpur ² GIIT, Gwalior , ³ U.I.E.T., C.S.J.M.U. Kanpur <i>A New Class of K-Uniformly Convex Functions with Negative Coefficients Associated with Fractional Operator</i>
	Swadheenanda Patnaik ¹ and Manasa Dash ² ¹ Institute of Mathematics and Applications, Andharua, Bhubaneswar, ² Silicon Institute of Technology, Bhubaneswar <i>Reconstruction of the Functions on the Cylinder from Scattered Data with Noise</i>
	Dhaneshwar Prasad ¹ , S.S. Panda ² and S.V. Subrahmanyam ³ ¹ Dr. S.R.K. Govt. Arts College, Yanam, ² Regency Institute of Technology, Yanam ³ MVR College of Engineering & Technology, Vijayawada <i>Non-Newtonian Squeeze Film Lubrication of Journal Bearing with Temperature Effect</i>
	A. Pushpalatha ¹ and R. Nithyakala ^{2,1} ¹ Government Arts College Udumalpet Tirupur, ² Vidyasagar College of Arts and Science Udumalpet <i>Scg-Closed, Sc*G-Closed , Sc(S)G-Closed Sets in Topological Spaces</i>
	G. Rabbani and H. Ara Bariatu Sattar Colony, Ranchi <i>Mathematical Models in Medicines for Diabetes Patients in Terms of Differential Equations</i>

Oral Presentation (OM-B2)	
Venue : Campus-3, Hall C10, KIIT University	
	Anirban Roy Christ University, Bangalore <i>Some Observations on Visibility of Lattice Point</i>
	Rudraman, Gurukul Kangri University, Haridwar <i>Analysis of Priority Queue Models of Discrete System in Queuing Theory</i>
	S. B. Singh ¹ , Subodh Kumar ¹ and Vikram Kumar ² A.M. College, Gaya ² M.U. Bodh Gaya Ashok Nagar, Gaya <i>Fixed Point Theorem for Compatible Mapping</i>
	Ashwani K. Sinha, M. M. Mahila College, Ara <i>Finite Difference Analysis of Dean's Stability Problem</i>
	G.C. Tikkiwal, JNVU, Jodhpur <i>Classification of Random Doppler-Radar Targets During the Surveillance Operations</i>
Oral Presentation (OS-2)	
Venue : Campus-3, Hall C12, KIIT University	
	J.V. Sukanya Divvela and B.K. Sinha, ISI, Kolkata <i>Price -Weighted Apportionment Index and Related Inference</i>
	Rupak Gupta ¹ and Dulumoni Das ^{2,1} The ICFAI University, Agartala ² Cotton College, Guwahati <i>Status of Women in North Eastern States of India: A Comparative Statistical Analysis</i>
	Ranjana Kar, Statistics Rural Health and Training Center, Jagatsinhpur <i>A Class of Statistical Models to Study Unmet Need for Family Planning Programme in Orissa, India</i>
	P.S. Mahajan, G. D. M Arts, K. R. N. Commerce and M.D. Science College, Jalgaon <i>Mathematical Methods in Medical Image Processing</i>
	V.K. Pathak, Govt. P. G. College, Dhamtari, Chhattisgarh <i>Wind Mill System Having One Unit & Three Associative Units</i>
	A.K. Paul, Samarendra Das and S.D. Wahi IASRI, New Delhi <i>Comparative Performance of Oblique Axes, K^{Th} Nearest Neighbour, Linear and Quadratic Discriminant Procedures Under Multivariate Skew-Normal Situations</i>
	Bhim Singh and B.V.S., Sisodia College of Horticulture & Forestry, Jhalawar <i>Application of Ratio-type Estimators for Small Area in Repeated Survey</i>

Poster Presentation (PS-2)
Poster Presentation (PM-2)

January 07, 2012

Symposium: Directional Statistics in Interdisciplinary Research for Addressing National Challenges

14:00-17:30

Special Invited Lectures IL-4

Venue : Campus-3, Hall C11, KIIT University
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	T. Madhan Mohan
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	<i>Recent Perspectives in Bioinformatics</i>
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	Prem Narain, IASRI, New Delhi
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	<i>Linear Models in Genomic Studies</i>
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15:00-16:00

Invited Sessions (IS-S10) Bioinformatics

Venue : Campus-3, Hall C11, KIIT University
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	G. Panda, IIT, Bhubaneswar
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	<i>Applications of Signal Processing Techniques to Bioinformatics</i>
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	R.C. Sobti, Punjab University, Chandigarh
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	<i>Systems Biology: A Multidisciplinary Approach</i>
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	H.J. Vaman, Central University of Rajasthan, Kishangarh
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	<i>On Testing the Transition Probability Matrix of a Multi-state Survival Model</i>
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Invited Sessions (IS-S11) AstroStatistics
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Venue : Campus-3, Hall C12, KIIT University
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	Atanu Biswas ¹ , Asis K. Chattopadhyay ² and Tanuka Chattopadhyay ³ ISI, Kolkata, ^{2,3} Calcutta University, Kolkata
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	<i>Multivariate Mixed Linear-Circular Galaxy Data</i>
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	Asis K. Chattopadhyay, Calcutta University, Kolkata
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	<i>Independent Component Analysis and Clustering Related to Astronomical Data</i>
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	Tanuka Chattopadhyay, Calcutta University, Kolkata
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	<i>Study of Initial Function Through Markov Chain Carlo Simulation</i>
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	Ranjeev Misra, IUCAA, Pune
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	<i>The Need for Advanced Statistical Methods for Astronomical Time Series Analysis</i>
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Symposium: Mathematical Innovations with Real-life Applications for National Excellence	
Invited Sessions (IS-M3) Topics in Mathematics-II	
Venue : Campus-3, Hall C10, KIIT University	
	Tripti Chakrabarti Calcutta University, Kolkata <i>Stochastic Inventory Models with Mixture of Backorders Involving Reducible Lead Time and Setup Cost with Budget Constraint</i>
	V.V. Haragopal, Osmania University, Hyderabad <i>Image Compression Using Fourier Coefficients</i>
GENERAL DISCUSSIONS AND RECOMMENDATIONS	