

Conference Programme



International Conference on Statistics and Informatics in Agricultural Research

66th Annual Conference of Indian Society of Agricultural Statistics

December 18-20, 2012

Themes of the Conference and Conveners

Theme 1: Statistical Applications in Agricultural Research

S.No.	Sub-theme	Convener(s)
IP 1.1	Stochastic Models in Applied Research	Kalyan Das and Ricardas Zitkis
IP 1.2	Statistical Issues in Gender Dynamics and Women Empowerment	Dhrijesh Tiwari

Theme 2: Emerging Issues in Basic Statistical Research

S.No.	Sub-theme	Convener(s)
IP 2.1	Design and Analysis of Multifactor Experiments	Manohar Aggarwal
IP 2.2	Advances in Sampling Techniques	Sat Gupta
IP 2.3	Small Area Estimation	Ray Chambers and Hukum Chandra
IP 2.4	Biostatistics	KV Palanichamy and Asha Seth Kapadia
IP 2.5	Statistical Inference	Pranesh Kumar

Theme 3: Agricultural Informatics

S.No.	Sub-theme	Convener(s)
IP 3.1	Statistics and Informatics in Plant Variety Protection	RC Agrawal and SK Chakrabarty
IP 3.2	Knowledge Management in Agriculture	Ajit Maru
IP 3.3	ICT for Reaching Stakeholders	Ajay Gupta and Rajeev Agrawal
IP 3.4	Advances in Statistical Computing	A Dhandapani

Theme 4: Statistical and Computational Biology in Agriculture

S.No.	Sub-theme	Convener(s)
IP 4.1	Statistical Genomics	S. Pyne
IP 4.2	Bioinformatics in Agriculture	Sridhar Sivasubbu
IP 4.3	Mathematical Biology	Jan Rychtar
IP 4.4	Advances in Statistical Genetics	VK Bhatia and AR Rao

Theme 5: Statistical and Economic Issues for Economic Upliftment of Rural Community

S.No.	Sub-theme	Convener(s)
IP 5.1	Indicators of Socio-Economic Development	BK Sinha

Theme 6: Human Resource Development in Agricultural Statistics and Informatics

S.No.	Sub-theme	Convener(s)
IP 6.1	HRD in Agricultural Statistics and Informatics: Current Status and Challenges	VK Gupta

Venue and Programme Summary

18 December 2012

Venue for the following events would be AP Shinde Symposium Hall, NASC Complex, DPS Marg, opposite Todapur, New Delhi – 110 012, India

- Inaugural Function
- Dr. Rajendra Prasad Memorial Lecture
- Keynote Address
- Dr. VG Panse Memorial Lecture
- Plenary Lectures
- Distinguished Lectures
- Cultural Programme

19-20 December 2012

Venue: Indian Agricultural Statistics Research Institute, Library Avenue, New Delhi – 110 012, India

➤ Sessions would run concurrently in the following halls at IASRI, New Delhi:

- Hall 1 : Auditorium, Computer Centre (Ground Floor)
- Hall 2 : Room No. 108, CABin, Computer Centre (First Floor)
- Hall 3 : Room No. 109, CABin, Computer Centre (First Floor)
- Hall 4 : Room No. 110, CABin, Computer Centre (First Floor)
- Hall 5 : Auditorium, Sample Survey Block (Ground Floor)
- Hall 6 : Room No. 102, Training-cum-Administrative Block (First Floor)
- Hall 7 : Room No. 106, Training-cum-Administrative Block (First Floor)

December 19, 2012

0930-1015	Dr. GR Seth Memorial Young Scientist Award Session: Hall 1				
1015-1045	Dr. DN Lal Memorial Lecture: Hall 1				
1045-1100	Tea				
1100-1300	IP 2.1, Hall 1	IP 2.2, Hall 5	IP 2.4, Hall 2	IP 2.5, Hall 3	IP 3.1, Hall 7
1300-1400	Lunch				
1400-1600	IP 1.1, Hall 5	IP 1.2, Hall 3	IP 3.2, Hall 7	IP 4.3, Hall 2	IP 4.4, Hall 1
1600-1615	Tea				
1615-1815	IP 2.1, Hall 3	IP 2.2, Hall 5	IP 3.2, Hall 7	IP 4.2, Hall 2	IP 6.1, Hall 1
1830-1930	ISAS General Body Meeting: Hall 1				
2000-2100	Dinner				

December 20, 2012

0900-1100	CP1 Hall 1	CP3 Hall 5	CP5 Hall 2	CP 6 Hall 3	CP 8 Hall 6	CP10 Hall 7	CP 12 Hall 4
1100-1115	Tea						
1115-1315	IP 2.3, Hall 5	IP 3.3, Hall 2	IP 3.4, Hall 7	IP 4.1, Hall 3	IP 5.1, Hall 1		
1315-1400	Lunch						
1400-1600	CP 2 Hall 1	CP 4 Hall 5	CP 7 Hall 2	CP 9 Hall 3	CP 11 Hall 4	CP13 Hall 6	CP 14 Hall 7
1600-1615	Tea						
1615-1700	Valedictory Session						

Tuesday, 18 December 2012	
Venue: AP Shinde Symposium Hall, NASC Complex, DPS Marg, New Delhi	
Inaugural Session (0930 – 1125)	
0830-0930	Registration
0930-0935	Invocation & Lighting of Lamp
0935-0940	Welcome Address V.K. Gupta <i>ICAR, National Professor and Organizing Chair</i>
0940-0945	Secretary Report V.K. Bhatia <i>Secretary, Indian Society of Agricultural Statistics and Director, Indian Agricultural Statistics Research Institute</i>
0945-0950	Remarks Prem Narain <i>Executive President, Indian Society of Agricultural Statistics</i>
0950-1010	Presentation of Awards and Release of Souvenir Professor Abhijit Sen <i>Member, Planning Commission, Government of India</i>
1010-1020	Remarks and Introduction of the Speaker S. Ayyappan <i>Secretary, DARE, Government of India; Director General, ICAR & President of Indian Society of Agricultural Statistics</i>
1020-1110	Inaugural Address & Dr. Rajendra Prasad Memorial Lecture Abhijit Sen <i>Member, Planning Commission, Government of India</i>
1110-1115	Honouring the Chief Guest
1115-1120	Vote of Thanks Rajender Parsad <i>Organizing Secretary</i>
1120-1125	National Anthem
1125-1150	Tea Break
1150-1250	Keynote Address : Statistical Analysis of Data from Quantitative High Throughput Screening Assays (qHTS) – Methods and Challenges Speaker: Shyamal Peddada Chairman: RB Singh
1250-1400	Lunch Break
1400-1430	Distinguished Lecture : Quantitative Genetics: From Fisher's Infinitesimal Model to Systems Approach Speaker: Prem Narain Chairman: Sat Gupta
1430-1500	Distinguished Lecture : Application of Block Designs to a Problem in Cryptology Speaker: Alope Dey Chairman: Bikas Sinha
1500-1600	Dr. VG Panse Memorial Lecture : Design and Analysis of Experiments for Crop Variety Trials: Current Approaches and Future Perspectives Speaker: Murari Singh Chairman: Shyamal Peddada
1600-1615	Tea Break
1615-1700	Plenary Lecture : On the Use of Growth Curves for Analyzing Agricultural Data Speaker: James H Matis Chairman: Alope Dey

1700-1730	Distinguished Lecture : SuDoKu as an Experimental Design: Beyond the Traditional Latin Square Design	
	Speaker: Bikas Sinha	Chairman: Murari Singh
1730-1800	Distinguished Lecture : Optimal Two-Stage Optional Randomized Response Models	
	Speaker: Sat Gupta	Chairman: James H Matis
1800-1845	Plenary Lecture : Power of Statistics in the Welfare of Society	
	Speaker: TCA Anant	Chairman: Prem Narain
1915-2015	Cultural Programme	
2015-2115	Dinner	

Wednesday, 19 December 2012: IASRI, Library Avenue, New Delhi

	Dr. GR Seth Memorial Young Scientist Award Session: Hall 1 Evaluators: VK Gupta, RPS Malik, VK Bhatia, A Dhandapani	
Time	Speaker	Title
0930 -0950	Kaustav Aditya	Estimation of Domain Mean using Two Stage Sampling with Sub-Sampling of Non-respondents under Random Response Mechanism
0950-1010	Ranjit Kumar Paul	Development of Out-of-Sample Forecasts Formulae for ARIMAX-GARCH Model and their Application to Forecasting Wheat Yield Volatile Data
1015 -1045	Dr. DN Lal Memorial Lecture : Some Innovative Approaches for Small Area Estimation: Hall 1	
	Speaker: Hukum Chandra	Chairman: VK Gupta
1045 -1100	Tea Break	
1100-1300	05 Concurrent Sessions A1:IP 2.1, A2:IP 2.2, A3:IP 2.4, A4:IP 2.5 and A5:IP 3.1 of Invited papers in Halls 1, 5, 2, 3 and 7 respectively	
1300-1400	Lunch Break	
1400-1600	05 Concurrent Sessions B1:IP 1.1, B2:IP 1.2, B3:IP 3.2, B4:IP 4.3 and B5:IP 4.4 of Invited papers in Halls 5, 3, 7, 2 and 1 respectively	
1600-1615	Tea Break	
1615-1815	05 Concurrent Sessions C1:IP 2.1, C2:IP 2.2, C3:IP 3.2, C4:IP 4.2 and C5:IP 6.1 of Invited papers in Halls 3, 5, 7, 2 and 1 respectively	
1830-1930	ISAS General Body Meeting: Hall 1	
2000-2100	Dinner	

Details of Concurrent Sessions on 19 December 2012 are:

Session A1: Hall 1

IP 2.1: Advances in Designs for Multi-factor Experiments

Chairman: Manohar Aggarwal

Time	Speaker	Title
1100-1125	Dibyen Majumdar	D-optimal Supersaturated Designs
1125-1150	Rita SahaRay	Partially Replicated Fractional Factorial Designs
1150-1215	Ratan Dasgupta	Yam Growth Experiment and Above-ground Biomass as Possible Predictor
1215-1240	Ashish Das	Optimal Supersaturated Designs
1240-1300	Discussion	

Session A2: Hall 5
IP 2.2: Advances in Sampling Techniques
Chairman: Sat Gupta

Time	Speaker	Title
1100-1125	Raghunath Arnab	Adjustments of Design Weights through Calibration
1125-1150	TJ Rao	Efficient Use of Auxiliary Information
1150-1215	UC Sud	On Calibration Approach based Product Estimator
1215-1240	Samridhi Mehta	Privacy Protection of Respondents in Quantitative RRT Models
1240-1300	Discussion	

Session A3: Hall 2
IP 2.4: Biostatistics
Chairman: KV Palanichamy

Time	Speaker	Title
1100-1125	Jeyaseelan L	Decoding the Times Series Data of Vibrio Cholerae using Hidden Markov Models and Regression Analyses using Bayesian Hierarchical Models
1125-1150	Asha S Kapadia	Theory of Runs with Application to Drought Prediction
1150-1215	KV Palanichamy	Biostatistics Education for Meeting the Growing Demand for Data Analysts
1215-1240	Vineeta Singh	HIV/AIDS Awareness among Adolescents in Rural Bareilly: A Probit Regression Analysis
1240-1300	Discussion	

Session A4: Hall 3
IP 2.5: Statistical Inference
Chairman: Pranesh Kumar

Time	Speaker	Title
1100-1130	Pranesh Kumar	Measuring Financial Market Risk using Value-at-Risk: Some Statistical Issues
1130-1200	Tumulesh Solanky	Nonparametric Sequential Procedure for Partitioning a Set of Populations with Respect to a Standard or Control
1200-1230	Isha Dewan	Reliability Bounds Based on Signatures
1230-1250	Faramarz Kashanchi	Copula Based Aerial Image Registration
1250-1300	Discussion	

Session A5: Hall 7
IP 3.1: Statistics and Informatics in Plant Variety Protection
Chairman: RC Agrawal

Time	Speaker	Title
1100-1130	RC Agrawal	Statistical Procedures for DUS Testing: Problems and Prospects
1130-1155	Dipal Roy Choudhury	Principles and Procedures of DUS Testing as per PPV&FR Act, 2001
1155-1220	SK Chakrabarty	Sampling, Probability and Reject Numbers in DUS Testing: Researchable Issues
1220-1245	Sunil Archak	PGR Informatics: Facilitating the Prior Art Search in Protection of Plant Varieties and Farmers' Rights
1245-1300	Discussion	

Session B1: Hall 5
IP 1.1: Stochastic Models in Applied Research
Chairman: Kalyan Das

Time	Speaker	Title
1400-1430	Kalyan Das	Robust Inference for Generalized Partially Linear Mixed Models that Account for Censored Responses and Missing Covariates - An Application to Arctic Data Analysis
1430-1455	Himadri Ghosh	Some Stochastic Volatility Models and their Applications
1455-1520	Girish K Jha	An Empirical Investigation of Time Delay Neural Networks and Linear Time Series Models for Agricultural Price Forecasting
1520-1545	Ranjana Agrawal	Models for Forecasting Crop Yields, Pests and Diseases - IASRI Approaches
1545-1600	Discussion	

Session B2: Hall 3
IP 1.2: Statistical Issues in Gender Dynamic and Women Empowerment
Chairman: Dhrijesh Tiwari

Time	Speaker	Title
1400-1420	Aasha Kapur Mehta	Making Policies and Programmes Work for Women: The Key Role Played by Data Gaps and Issues
1420-1440	Subhalakshmi Nandi	Gender Analysis of Data Systems
1440-1500	Usha Rani Ahuja	Assessing Women's Empowerment in Diverse Farming Systems of Eastern India: Gender Equity Index
1500-1520	Sushila Kaul	Data Requirement for Study of Women in Indian Agriculture
1520-1540	Poonam Agrawal	Empowerment Strategies for Rural Girls & Farm Women
1540-1600	Discussion	

Session B3: Hall 7
IP 3.2: Knowledge Management in Agriculture (Panel Discussion)
Chairman: Ajit Maru
Time: 1400-1600 hours
(Would Continue as Session C3: 1615-1815 hours in Hall 7)

Speaker	Affiliation
Ajit Maru	Global Forum on Agricultural Research, FAO, Rome
Rinkiin Gandhi	Digital Green, India
KD Kokate	Indian Council of Agricultural Research, New Delhi
Attaluri Srinivasacharyulu	Asia-Pacific Association of Agricultural Research Institutions, Bangkok
Gerard Sylvester	FAO Regional Office for Asia and Pacific, Bangkok
Rameshwar Singh / Himanshu	Directorate of Knowledge Management in Agriculture, Indian Council of Agricultural Research, New Delhi
Sridhar Gutam	Central Institute of Subtropical Horticulture, Lucknow
Pradyut Modi	International Crop Research Institute for Semi-arid Tropics, Hyderabad, India
Rantej Singh	Reuters Market Light, Thomson Reuters, India
TV Prabhakar	Indian Institute of Technology, Kanpur
Discussion	

Session B4: Hall 2
IP 4.3: Mathematical Biology
Chairman: James H Matis

Time	Speaker	Title
1400-1425	Caitlin Ross	How the Evolution of Altruism is Affected by Various Aging Structures
1425-1450	David Sykes	Optimal Strategies in Kleptoparasitic Interactions
1450-1515	Thomas Parrish	Behavioral Studies of <i>P californicus</i> and <i>P boylii</i> through Automated Video Processing
1515-1540	Tracy Spears Gill	Applying Optional Unrelated-Question Randomized Response Models for Estimating Risky Sexual Behaviors
1540-1600	Discussion	

Session B5: Hall 1
IP 4.4: Advances in Statistical Genetics
Chairman: VK Bhatia

Time	Speaker	Title
1400-1430	Pushpendra Kumar Gupta	Association Mapping: Some Statistical Issues
1430-1455	Shrinivas Jahageerdar	Genetic Evaluation of Aquaculture Species: Challenges and Opportunities
1455-1520	J Sreekumar	Identifying Gene Regulatory Networks from Gene Expression Data by Incorporating Biological Knowledge
1520-1545	J Jayasankar	Bayesian Analytical Procedures in Quantitative Genetics
1545-1600	Discussion	

Session C1: Hall 3
IP 2.1: Advances in Designs for Multi-factor Experiments
Chairman: Alope Dey

Time	Speaker	Title
1615-1645	Manohar Aggarwal	Efficient Three Level Screening Designs using Weighing Matrices
1645-1715	Siuli Mukhopadhyay	Comparison of Designs for Generalized Linear Models under Model Misspecification
1715-1740	Kashinath Chatterjee	A Lower Bound to the Measure of Optimality for Main effect Plans in the Symmetric Factorial Experiments
1740-1805	Poonam Singh	Optimal Orthogonally Blocked Mixture Designs using F-squares
1805-1815	Discussion	

Session C2: Hall 5
IP 2.2: Advances in Sampling Techniques
Chairman: UC Sud

Time	Speaker	Title
1615-1645	Neeraj Tiwari	Applications of Optimal Controlled Selection to Statistical Problems
1645-1710	Anna Tuck	Parameter Estimation for Quantitative and Binary Optional Unrelated-Question Randomized Response Model
1710-1735	Sheela Misra	On Prediction Approach for Estimation in Finite Survey Sampling
1735-1800	J Subramani	Estimation of Finite Population Mean in the Presence of Linear Trend – Some Recent Developments
1800-1815	Discussion	

Session C4: Hall 2
IP 4.2: Bioinformatics in Agriculture
Chairman: Sridhar Sivasubbu

Time	Speaker	Title
1615-1635	Saikat Chakrabarti	Exploring Biomolecular Interaction: Text Mining to Molecular Dynamics
1635-1655	TR Sharma	Computational Analysis of Plant Genomes: A Precursor for Functional Genomics
1655-1715	Sridhar Sivasubbu	Genome and Transcriptome of a Wild Type Strain of Zebrafish
1715-1735	Anil Rai	National Agricultural Bioinformatics Grid
1735-1755	GPS Raghava	
1755-1815	Discussion	

Session C5: Hall 1

IP 6.1: HRD in Agricultural Statistics and Informatics: Current Status and Challenges
Chairman: Arvind Kumar; Co-Chairman: VK Gupta

Time	Speaker	Title
1615-1635	C Devakumar	Pedagogical Issues in Statistics Education
1635-1655	HS Gaur	Policy Issues for HRD in Agricultural Statistics and Informatics
1655-1715	SD Samantaray	Talent Shortage Issues and Strategies for HRD in Agricultural Informatics
1715-1735	Prajneshu	Human Resource Development (HRD) in Agricultural Statistics: Current Status and Challenges
1735-1755	SD Sharma	HRD in Agricultural Statistics and Informatics
1755-1815	Discussion	

Thursday, 20 December 2012: IASRI, Library Avenue, New Delhi

0900-1100	07 Concurrent Sessions of Contributed Papers CP1, CP3, CP5, CP6, CP8, CP10 and CP12 in Halls 1, 5, 2, 3, 6, 7, and 4 respectively
1100-1115	Tea
1115-1315	05 Concurrent Sessions D1:IP2.3, D2:IP3.3, D3:IP3.4, D4:IP4.1 and D5:IP5.1 of Invited papers
1315-1400	Lunch
1400-1600	07 Concurrent Sessions of Contributed Papers CP2, CP4, CP7, CP9, CP11, CP13 and CP14 in Halls 1, 5, 2, 3, 4, 6, and 7 respectively
1600-1615	Tea
1615-1700	Valedictory Session

Details of Concurrent Sessions on 20 December 2012 are:

0900-1100	Concurrent Sessions of Contributed Papers
	Session CP1: Hall 1; Chairman: Poonam Singh
	Session CP3: Hall 5; Chairman: Neeraj Tiwari
	Session CP5: Hall 2; Chairman: Saikat Chakravarty
	Session CP6: Hall 3; Chairman: SD Samantray
	Session CP8: Hall 6; Chairman: SD Sharma
	Session CP10: Hall 7; Chairman: AK Sharma
	Session CP12: Hall 4; Chairman: Subedar Singh

Session D1: Hall 5
IP 2.3: Small Area Estimation
Chairman: Padam Singh

Time	Speaker	Title
1115-1145	Tapabrata Maiti	Small Area Estimation by Shrinking both Means and Variances
1145-1210	BB Singh	Sub State Estimates of Crop Yield in India
1210-1235	BVS Sisodia	Estimation of Crop Production at Smaller Geographical Level - An Application of Discriminant Function Analysis
1235-1300	Hukum Chandra	Small Area Prediction under Unit Level Model using Estimated Auxiliary Data
1300-1315	Discussion	

Session D2: Hall 2
IP 3.3: ICT for Reaching Stakeholders
Chairman: MM Pandey

Time	Speaker	Title
1115-1140	Rajeev Agrawal	Survey: Using ICT Best Practices to Reach Stakeholders in Developing Countries
1140-1200	LR Yadav	A Sustainable Approach for Agricultural Informatics Development in Uttar Pradesh
1200-1220	Sapna A Narula	Agricultural Value Chain Development through Mobile Phone based Information Delivery in India
1220-1240	Surabhi Mittal	How effective are the modern ICT to reach the farmers? - Models, Scope and Constraints
1240-1300	M Moni	Digital Inclusion in India: Challenges and Opportunities
1300-1315	Discussion	

Session D3: Hall 7
IP 3.4: Advances in Statistical Computing
Chairman: A Dhandapani

Time	Speaker	Title
1115-1145	Karmeshu	Stochastic Models of Innovation Diffusion
1145-1210	Subrata Kumar Satpati	Statistical Computing for Equity Estimator and Logistic Regression Used in Market Research
1210-1235	Amul Desai	High Performance Analytics: Creating a Competitive Advantage
1235-1255	Biswajit Nayak	Paradigm Shift from Proprietary Scripting to Generic in Statistical Modeling
1255-1315	Discussion	

Session D4: Hall 3
IP 4.1: Statistical Genomics
Chairman: Saumyadipta Pyne

Time	Speaker	Title
1115-1140	Saumyadipta Pyne	Multivariate Omic Analysis: Incorporating the Metabolome
1140-1205	Mukesh Jain	Next Generation Genomics for Crop Improvement
1205-1230	Amit Dutt	Emerging Trends for Translational Cancer Research: A Multiple Disciplinary Approach
1230-1255	Abhishek Rathore	Towards Integrating MARS and GWS Modules in ISMU Pipeline for Using Modern Genomics Approaches in Crop Breeding
1255-1315	James M Reecy	Application of Bioinformatics in Domestic Animal Improvement

Session D5: Hall 1
IP 5.1: Indicators of Socio-Economic Development
Chairman: Prem Narain

Time	Speaker	Title
1115-1150	Amitabh Kundu	Composition of Socio-Economic Indicators and the Problem of Completeness
1150-1220	Abhiroop Mukhopadhyay	The Mahatma Gandhi NREGS: Implementation and Effects
1220-1250	AC Kulshreshtha	Official Statistics for Indicators in Millennium Development Goals
1250-1305	JS Tomar	Statistical and Economic Issues Concerning the Rural Poor: Retrospect and Prospects
1305-1315	Discussion	

1400-1600	Concurrent Sessions of Contributed Papers	
	Session CP2: Hall 1; Chairman: Kashinath Chatterjee	
	Session CP4: Hall 5; Chairman: BVS Sisodia	
	Session CP7: Hall 2; Chairman: LR Yadav	
	Session CP9: Hall 3; Chairman: Sheela Misra	
	Session CP11: Hall 4; Chairman: J Subramani	
	Session CP13: Hall 6; Chairman: Vineeta Singh	
Session CP14: Hall 7; Chairman: J Jayasankar		
