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Papers Presented and Participation of the Institute at the Conferences/Workshops, Etc.

RESEARCH PAPERS PRESENTED

National Seminar on "Prioritization of Interventions in Rainfed Areas for Sustainable Livelihoods" at NASC Complex, New Delhi during 23-24 April 2009

- Rai, Anil. Livelihood status of different agro-climatic zones in India.

Technical Session in the Coordination Committee Meeting of AICRP on FIM held at College of Agricultural Engineering & Post Harvest Technology (CAEPHT), Central Agricultural University, Ranipool, Gangtok (Sikkim) during 04-06 May 2009

- Tyagi, KK. Status and projection estimates of agricultural machinery and implements.

Group Meeting of STCR (AICRP) held at ANGRAU, Hyderabad during 06-07 June 2009

- Lahiri, Aloke. Design and analysis of STCR experiments and layout of the new experiment.

USDA-ERS Workshop at Washington DC during 09-10 June 2009

- Vasisht, AK and Dahlgran, Roger A. Contract designs and trading bans on India's futures contract.

SAE 2009 Conference on "Small Area Estimation" held at Elche, Spain during 29 June - 01 July 2009

- Chandra, Hukum. Small area estimation of proportions in business surveys.

2nd National Conference on "Innovation in Indian Science Engineering and Technology" held at NPL, New Delhi during 17-19 July 2009

- Kaul, Sushila. India's economic reforms and agriculture sector.
- Kaul, Sushila. Historical review implementation and benefits of ISO 9001 certification in different sectors including agriculture.

Workshop on "Improvement of Agricultural Statistics" held at NASC Complex organized by

Directorate of Economics and Statistics during 11-12 August 2009

- Ahmad, T. Causes of variation between official and trade estimates of cotton production: A statistical investigation.
- Sahoo, Prachi Misra. Remote sensing and GIS based methodology for crop acreage estimation in north eastern hilly regions.

20th Columbian Statistics Symposium by National University of Columbia held at Coastal city of Santa Marta during 11-15 August 2010

- Chandra, Hukum. Small area estimation.

57th Session of International Statistical Institute (ISI 2009) Conference in association with the Department of Economics and Statistics at Durban, South Africa during 16-22 August 2009

- Chandra, Hukum and Chambers, R. Small area estimation under transformation to linearity.
- Chambers, R, Chandra, H, Salvati, N and Tzavidis, N. Outlier robust small area estimation.

Workshop on "Improvement of Statistical System in Kerala State" organized by Kerala State Planning Board in association with the Department of Economics and Statistics on 20 August 2009

- Sud, UC. Small area estimation-Some applications in India.

National Level Workshop cum Seminar on "Indian Commodity Market Derivatives and Risk Management-The Road Ahead" held at Puducherry during 11-12 September 2009

- Bhardwaj, SP and Vasisht, AK. Price discovery in commodity markets - A case study of gram.
- Vasisht, AK and Bhardwaj, SP. An analysis of volatility of agricultural prices – A case study of maize.

National Symposium on "Advances in Geo-Spatial Technologies with Special Emphasis on Sustainable Rainfed Agriculture" and Annual Convention of Indian Society of Remote Sensing (ISRS) 2009 held at Nagpur during 17-19 September

- Kapoor, Nitika and Sahoo, Prachi Misra. Extraction of information under cloud cover from satellite image using kriging.

- Kundu, Seema and Sahoo, Prachi Misra. Web based mapping using ARCIMS.

Seminar on "Commodity Derivative Markets: Opportunities and Challenges" organized by Takshashila Academia of Economic Research Limited (TAER) and Institute of Studies in Industrial Development (ISID) held at New Delhi on 30 October 2009

- Vasisht, AK. An econometric analysis of efficiency of agricultural commodity futures market and price discovery.

23rd National Conference of Indian Society of Agricultural Marketing held at CRIDA, Hyderabad during 12-14 November 2009

- Bhardwaj, SP and Vasisht, AK. Strategic measures to meet marketing challenges in the changing scenario of liberalisation.
- Bhardwaj, SP. Innovative models to reap market incentives.
- Vasisht, AK and Bhardwaj, SP. Price dynamics of agricultural commodity futures and its impact on demand-supply situation of agricultural commodities.

63rd Annual Conference of ISAS held at RAU, Pusa, Bihar during 03-05 December 2009

Technical Address

- Bhatia, VK. Growth of quantitative genetics and estimation of genetic parameters.

Invited Talks

- Bhatia, VK. Bio-informatics in agriculture. Symposium on Statistical and Computational Genomics.
- Parsad, Rajender, Gupta, VK and Sarkar, Ananta. Design and analysis of microarray experiments. Symposium on Statistical and Computational Genomics.
- Bhatia, VK. Modelling climate effects. Symposium on Statistical and Informatics Perspectives of Climate Change.
- Parsad, Rajender, Gupta, VK and Malhotra, RS. Experimental designs for mitigation and adaptation strategies of climate change. Symposium on Statistical and Informatics Perspectives of Climate Change.

- Rai, Anil, Chaturvedi, KK and Malhotra, PK. Spatio-temporal data mining for monitoring of climate change. Symposium on Statistical and Informatics Perspectives of Climate Change.

Contributed Papers

- Wahli, SD and Rao, AR. Some investigations on sampling variance of genetic correlation.
- Paul, AK, Singh, Mohan Das and Wahli, SD. Some investigation on the statistical properties of goodness of fit criteria of non-linear growth curves through bootstrap technique.
- Arnab, R and Sud, UC. A note on variance estimation of ratio estimator under two phase sampling.
- Singh, Jagbir. Estimation from independent sub samples of a population.
- Arya, Prawin, Vasisht, AK, Shivaramane, N and Singh, DR. Market investigation in coarse cereals in India: A case of maize and jowar.
- Kaul, Sushila. Implications of global warming on agricultural production in India.
- Agrawal, Ranjana, Chandrasah and Kausav, Aditya. Use of discriminant function analysis for forecasting wheat yield.
- Ramasubramanian, V, Bhatia, VK, Kumar, Amrender, Pal, Satya and Premi, Sarvesh Kumar. Forecasting technological needs in genetics and plant breeding for sustainable agriculture.

Workshop of AICRP on LTFE held at IGKV, Raipur during 06-08 December 2009

- Sehgal, DK. Superimposition/bifurcation of treatments in long term fertilizer experiments.

CSISA Experimental Platform Meeting held at ICAR-RCER Patna during 14-16 December 2009

Invited Talk

- Parsad, Rajender. Designs of experiments with emphasis on CSISA experimental platform.

International Conference on Artificial Intelligence (IICAI 09) held at Tumkur, Bangalore during 16-18 December 2009

- Sudeep. Disease and pest identification in crops – A semantic web approach.
- Arora, Alka, Upadhyaya, Shuchita, Jain, Rajni. Approach for mining multiple patterns from clusters.

Humanising Work and Work Environment 2009 Conference held at Kolkata during 17-19 December 2009

- Gite, LP, Tiwari, PS, Khadatkar, Abhijit (CIAE) Tyagi, KK, Bathla, HVL and Kher, KK. Farm machinery accidents in Indian agriculture.

69th Annual Conference of ISAE held at GND University, Amritsar during 17-19 December 2009

- Kaul, Sushila. Urbanization and its implications for agriculture production.

International Conference-FSES, 2009 held at IIT, Kharagpur during 17-19 December 2009

- Vasisht, AK. On adoption pattern and factors influencing the adoption of RCTs in Indo-Gangetic plains of India.

Dissemination Workshop on "Mixture Experiments: Theory and Applications" jointly organized by Department of Statistics, Calcutta University and Department of Statistics, Kalyani University at BCKV, Kalyani during 21-22 December 2009

Invited Talks

- Batra, PK, Alam, N and Parsad, Rajender. Designs for multi-factor mixture experiments.
- Parsad, Rajender and Gupta, VK. Design resources server.
- Parsad, Rajender. Applications of experiments with mixtures methodology.
- Lal, Krishan and Gupta, VK. Efficient mixture designs with process variables in agriculture.

7th International Triennial Calcutta Symposium on "Probability & Statistics" held at the University of Calcutta during 28-31 December 2009

- Chandra, H and Chambers R. Small area estimation for skewed data in presence of zeros.

International Conference on "Frontiers of Interface between Statistics and Sciences" held at C.R. Rao AIMSCS University of Hyderabad Campus, Hyderabad during 30 December 2009 to 02 January 2010

- Ghosh, Himadri. Application of statistical learning theory for fitting multimodal distribution to rainfall data.

97th Session of Indian Science Congress held at Trivandrum, Kerala during 03-07 January 2010

- Agrawal, Ranjana, Chandrahas and Kaustav, Aditya. Use of discriminant function analysis for forecasting wheat yield.
- Varghese, Eldho, Jaggi, Seema and Varghese, Cini. Row-column designs balanced for nearest neighbours.
- Meher, Prabina Kumar, Rao, AR, Wahi, SD and Jaggi, Namita. An empirical investigation on detection of multivariate outliers in breeding data.
- Mehta, SC, Pal, Satya and Kumar, Vinod. Weather based models for forecasting potato yield in Uttar Pradesh.

International Conference on Statistics, Probability, Operations Research, Computer Science and Allied Areas held at Andhra University, Visakhapatnam during 04-08 January 2010

Invited Talks

- Bhatia, VK and Paul, AK. Genetics of stayability of dairy cattle. Session on Recent Advances in Statistical Genetics.
- Gupta, VK, Kole, Basudev, Parsad, Rajender and Bhar, LM. Efficient mixed level supersaturated designs. Session on Design of Experiments.
- Parsad, Rajender, Gupta, VK, Bhar, LM and Subrata K Behera. Block designs with factorial treatment structure for cropping systems research. Session on Design of Experiments.
- Prajneshu and Ghosh, Himadri. Statistical modelling. Session on Statistical Modeling.

Contributed Paper

- Ghosh, Himadri. Nonlinear parametric mixture time-series modelling.

International Applied Statistics Conference 2010 held in Colombo, Sri Lanka during 08-09 January 2010

- Abeynayake, NR and Jaggi, Seema. A review of block designs with neighbour effects.

National Meet of Tractor and Agricultural Machinery Manufacturers held at PAU Ludhiana during 16-17 January 2010

- Tyagi, KK, Singh, Jagbir, Kher, KK, Jain, VK and Singh, Surendra. Status and projection estimates of agricultural implements and machinery.

International Conference on "Optimization and its Application" held at Banaras Hindu University on 17 February 2010

Invited Talk

- Prajneshu. Fuzzy regression models.

11th International Conference of the International Academy of Physical Sciences held at University of Allahabad on 20 February 2010

Invited Talk

- Prajneshu. Nonlinear time-series models.

XII Annual Conference of Society for Statistics, Computer and Applications held at Department of Statistics, Siksha Bhavana, Visva Bharati during 24-26 February 2010

Invited Talks

- Gupta, VK, Bhar, LM, Parsad, Rajender and Kole, Basudev. Efficient unbalanced mixed-level supersaturated designs.
- Gupta, VK, Kole, Basudev and Parsad, Rajender. Mixed level supersaturated designs.
- Parsad, Rajender, Gupta, VK and Malhotra, Raj S. Experimental designs for mitigation and adaptation strategies of climate change. Symposium on Statistics for Studying the Impact of Climate Change.

Contributed Papers

- Bhowmik, Arpan, Ramasubramanian, V, Chandrahas and Kumar, Adarsh. Logistic regression for classification in agricultural ergonomics.
- Gupta, VK, Singh, Poonam, Kole, Basudev and Parsad, Rajender. Addition of runs to a supersaturated design.
- Ramasubramanian, V, Bhatia, VK, Garg, KG, Kumar, Suresh, Kumar, Amrender and Kumari, Jyoti. Technological scenario in plant genetic and breeding using scientometrics.

National Symposium on "Lifestyle Floriculture: Challenges and Opportunities" held at Dr. YS Parmar University of Horticulture and Forestry, Nauni, Solan (HP) during 19-21 March 2010

- Gupta, AK. Estimation of area, production and productivity of flowers.

1st IFIP International Conference on "Bioinformatics" held at Sardar Vallabhbhai National Institute of Technology, Surat during 25-28 March 2010

- Bhardwaj, Ankush, Avanti, S, Pandey, Bharati and Rao, AR. A functional elements SNPs information system of rice genome.
- Saini, Vandna, Pandey, Bharati, Bhardwaj, Ankush and Rao, AR. In-silico analysis of splice sites of rice genome.

National Workshop on "Applicable Statistics" held at Department of Statistics, M.D. University, Rohtak during 28-30 March 2010

Invited Talks

- Bhatia, VK. Application of statistics for growth of quantitative genetics and estimation of genetic parameters.
- Prajneshu. Nonlinear statistical models and their applications.
- Parsad, Rajender. Applications of experiments with mixtures.

PARTICIPATION

- NAIP meeting at Krishi Anusandhan Bhawan-II, New Delhi on 15 April 2009.
- Meeting of round table on Global Economic Slow Down and Indian Agriculture at IARI, New Delhi on 24 April 2009.
- 10th ESRI India users conference on Geography in action held at Noida, National Capital Region Delhi during 28-29 April 2009.
- Global rice modeling initiative at IRRI organised by Soil Science Division, IRRI, Philippines at NCAP, New Delhi on 30 April 2009.
- 2nd Dayanatha Jha Memorial lecture on Emerging trends in Indian agriculture: What we can learn from this?" delivered by Dr. Ashok Gulati, Director in Asia, IFPRI held at NCAP, New Delhi on 02 May 2009.
- Sensitization meeting regarding project on Bioprospecting of genes and allele mining for abiotic stress tolerance held at NASC Complex, New Delhi during 05-06 May 2009.
- Coordination Committee meeting of AICRP on FIM at College of Agril. Engg. and Post Harvest Technology (CAEPHT), Central Agril. University, Gangtok (Sikkim) during 04-06 May 2009.

- Second meeting of Prof. Vaidyanathan Committee held at NASC Complex, Pusa, New Delhi during 05-06 May 2009.
- Meetings of Advisory Panel of Third census of handlooms and issues of photo identity cards to weavers and allied workers held at NCAER, New Delhi on 12 and 14 May 2009.
- Discussion regarding National achievement surveys at different stages of school education under Serva Shiksha Abhiyan (SSA) held at NCERT, New Delhi on 20 May 2009.
- Meeting with Dr. P.K. Mohanty, Jt. Secy & Mission Director, Jawahar Lal Nehru National Urban Renewal Mission, Ministry of Housing & Urban Poverty Alleviation on 27 May 2009.
- Meetings on Estimation of harvest and post harvest losses held at CIPHET, Ludhiana on 09 April 2009 and held at CTCRI, Trivandrum during 29-31 May 2009.
- Meetings of the Empowered Committee for Implementation of the Scheme Awards & Fellowships and Outstanding and Meritorious Research Studies in Statistics at New Delhi on 03 June, 10 September, 10 December 2009 and 04 March 2010.
- Vichar Manch on Issue on the Balckburner by Smt. Shashi Mishra, Ex-Secretary, ICAR held at NASC Complex on 03 June 2009.
- Foundation Day of NAAS and lecture of Prof. Sukhdeo Throat, Chairman UGC on Higher Education and XI Plan Approach and Strategies at NASC Complex, New Delhi on 04 - 05 June 2009.
- Meeting with Dr. Sanjay Sharma, Principal System Analyst, NIC held at Krishi Bhawan, New Delhi on 05 June 2009 to discuss village level census data of East Khasi Hills districts of Meghalaya.
- Meeting under the Chairmanship of Economic and Statistical Adviser, DES held at Krishi Bhawan, New Delhi on 10 June 2009 regarding the discussion on testing of alternative methodology suggested by IASRI in a few states for estimation of area and production of horticultural crops besides other horticulture related issues.
- Application of Statistical Methods Technical Committee meeting ISO/TC69 convened by

Department of Standards, Ministry of Science, Technology and Innovations, Government of Malaysia at Kuala Lumpur, Malaysia during 13-19 June 2009. India has represented in this Committee as a Participating Member and as Member of Indian Delegate.

- Meetings regarding updation of tables in ARDB 2009 with Sh. RC Sethi, Addl RGI at RGI Office on 16 June 2009; with DDG (Engg.), ICAR on 25 June 2009; with Dr. NPS Sirohi, Prof. Agril. Engg., IARI; Dr. KM Bajurbaruah, Dy. DG (Animal Sciences) on 22 July 2009.
- International Conference on Climate change: Law, policy and governance held at India Habitat Centre, New Delhi on 19 June 2009.
- Meeting with Mr. Sanjay, Dy. Advisor (Stat), DES to discuss the availability of crop cutting data at unit level, held at Shastri Bhawan, New Delhi on 24 June 2009.
- Meeting of the sub-committee of National Youth Readership Study 2009 held at NCAER, New Delhi on 26 June 2009.
- Meeting of Consortium Implementation Committee of Risk assessment and insurance products for agriculture held at NCAP, New Delhi on 29 June 2009.
- Director's Meet with Deputy Director General (Agricultural Engineering) at ICAR, Krishi Anusandhan Bhawan-II, New Delhi on 15 July 2009.
- Inaugural Ceremony of Indian Council of Agricultural Research (ICAR) Foundation Day and Directors' conference at NASC Complex, New Delhi on 16 July 2009.
- First meeting of the Standing Committee for 17th Conference of Central and State Statistical Organizations (COCSSO) held at CSO, Sardar Patel Bhawan, New Delhi on 23 July 2009.
- Meeting under the Chairmanship of Secretary, Ministry of Statistics & Programme Implementation to discuss the issues regarding Estimation of Slum Population in the Country at New Delhi on 23 July 2009.
- Short term training program on Soft computing (SofCom'09) held at Center for Soft Computing Research, Indian Statistical Institute, Kolkata during 27-31 July 2009.
- Meeting for the project on Sampling methodology for estimation of meat production in Meghalaya, with Director (Animal Husbandry) and other official of Directorate of Animal Husbandry, Shillong, Meghalaya at Shillong during 28-29 July 2009 and with Advisor (Statistics), Department of Animal Husbandry, Dairying and Fisheries, Ministry of Agriculture, Govt of India at DMS Complex, New Delhi on 16 April 2009.
- Workshop-cum-Brainstorming session on Remote sensing and GIS for accelerating growth in agricultural research and development held at IIRS, Dehradun on 31 July 2009.
- Discussions with concerned officials regarding study on Evaluation of rationalization of minor irrigation statistics scheme held at Hubli during 06-08 August 2009.
- 15th meeting of Statistical Methods for Quality and Reliability Sectional Committee MSD-3 in Bureau of Indian Standards (BIS) at New Delhi on 12 August 2009.
- Lecture on Collaboration and Partnership the Future of Higher Education by Dr. Gordon Gee, President of Ohio State University at NASC Complex, New Delhi on 13 August 2009.
- Workshop on Information technology application in horticultural crops held at CPRI, Shimla during 24-25 August 2009.
- Meeting with Dr. Surendra Singh, Project Coordinator, AICRP on FIM, for reviewing the progress of the project on Study on status and projection estimates of agricultural implements and machinery on 25 August 2009.
- Workshop on Study on assessment of future human capital requirements in agriculture organized by the Institute of Applied Manpower Research in collaboration with NAARM held at India Habitat Centre, New Delhi on 26 August 2009.
- Inaugural ceremony of launch of NAIP Consortium on Strengthening of Digital Library and Information Management and NARS (e-granth) at National Research Centre on Plant Biotechnology, New Delhi on 27 August 2009.
- 48th All India Wheat and Barley Research Worker's Meet held at IARI, New Delhi during 28-31 August 2009.

- Fifth meeting of the panel for Basic Statistical Methods (MSD 3/P-1) at New Delhi on 06 September 2009.
- 2nd meeting of the Working Group for the Construction of index numbers of area, production and yield of agricultural crops held at Krishi Bhawan under the chairmanship of ESA, Ministry of Agriculture, Govt. of India on 17 September 2009.
- Meeting on Profile of Indian scientists in six major scientific agencies under the Chairmanship of Sh. Rakesh Chetal, Advisor, DST held at India International Centre (Annex), New Delhi on 17 September 2009.
- 4th meeting of the Technical Committee on FASAL held at Krishi Bhawan under the chairmanship of Principal Advisor, DES, Ministry of Agriculture, Govt. of India on 23 September 2009.
- Lecture on Reconstructing Indian Population History by Dr. Lalji Singh, Director, Centre for Cellular and Molecular Biology, Hyderabad at NASC, New Delhi on 25 September 2009.
- Meeting on PERMISnet-II with Finance Advisor and his staff, and Deputy Secretary (ICAR) held at Krishi Bhawan on 05 October 2009.
- Meeting of the Ad-hoc Board of Studies in Agricultural Statistics of CCS University, Meerut on 13 October 2009.
- First meeting of the Advisory Committee on Recruitment of Official Statisticians through Indian Statistical Service (ISS) and Subordinate Statistical Service (SSS) held at Ministry of Statistics and Planning, National Academy of Statistical Administration, Greater Noida, U.P. on 14 October 2009.
- First CAC meeting of ICAR-NAIP funded Network project on bioprospecting of genes and allele mining for abiotic stress tolerance at NASC Complex, New Delhi on 21 October 2009.
- Monitoring Committee meeting of CeRA sponsored by National Agricultural Innovation Project, ICAR, New Delhi held at CIBA, Chennai on 21 October 2009.
- Brainstorming session on Agricultural waste management convened by Dr. NSL Srivastava, Joint Director, SPRERI, Gujarat held at NASC Complex, New Delhi during 23-24 October 2009.
- Winter School as a Chief Guest, on Decision making in agriculture using data mining held at National Centre for Agricultural Economics & Policy Research (NCAP), New Delhi on 27 October 2009.
- Meeting of Mid-Term Review (MTR) of the Department of Agricultural Research & Education (DARE)/ICAR for the 11th Five Year Plan at IARI, New Delhi on 28 October 2009.
- 61th meeting of MSD 3:3 held at New Delhi on 12 November 2009.
- Workshop on Sampling design and methodology to assess the socio-economic conditions of fishers and fish farmers in India held at Central Institute of Brackishwater Aquaculture (CIBA) Chennai during 12-14 November 2009.
- Training programme on IT-based decision support systems for multi-media content development held at NAARM, Hyderabad during 17-27 November 2009.
- HLCC meeting held at Chandigarh under the Chairmanship of Principal Secretary to Govt. of Haryana, Agriculture Department, Chandigarh on 20 November 2009.
- Workshop of Networking of agricultural economist under V-PAGE held at TNAU, Coimbatore on 21 November 2009.
- Workshop on Achieving food security in India: Improving competition, markets and the efficiency of supply chains held at Hotel Claridges, New Delhi on 24 November 2009.
- Meeting to discuss the issues related to upgradation of Automatic Weather Station (AWS) and Automatic Rain Gauges Stations (ARGs) for expansion of Weather Based Crop Insurance Scheme (WBCIS) under the chairmanship of Secretary (Agriculture & Cooperation) at Krishi Bhawan, New Delhi on 25 November 2009.
- Meeting with Advisor, DES, Ministry of Agriculture to discuss technical & financial aspects of the project on Study to develop an alternative methodology for estimation of cotton production held at Krishi Bhawan, New Delhi on 27 January 2010.
- 19th Group Workers meeting of AICRP (STF) held at BSKKV, Dapoli during 14-17 December 2009.
- Meeting of Technical Committee of Direction (TCD) for improvement of Animal Husbandry and Dairying

Statistics at Orissa, Bhubaneswar during 17-19 December 2009.

- Workshop-cum-Training Programme on Bioinformatics applications in crop science held at IARI during 21-23 December 2009.
- Inaugural function of Platinum Jubilee Symposium and 74th Annual Convention of Indian Society of Soil Sciences at Dr. B.P. Pal Auditorium, IARI, New Delhi on 22 December 2009.
- 81st Annual General Meeting of the ICAR Society at NASC, New Delhi-110012 on 23 December 2009.
- 379th meeting of the Academic Council at IARI, New Delhi on 24 December 2009 .
- PMAC Review Meeting for NAIP project V-PAGE held at NCAP, New Delhi on 30 December 2009.
- 5th workshop of AICRP on Ergonomics and safety in agriculture (ESA) held at DBSKKV, Dapoli (Maharashtra) during 06-08 January 2010.
- Short term training programme on Knowledge discovery in data bases: Data, Information and Knowledge (DInK'10) held at Center for Soft Computing Research, Indian Statistical Institute, Kolkata during 11-15 January 2010.
- Global Meet on Green Revolution II held at Hotel Lalit, New Delhi during 08-09 February 2009.
- National conference on Futures of commodity futures market held at Hotel La Meridian, New Delhi on 09 February 2010.
- 48th Convocation of IARI on 13 February 2010.
- Training programme on Technical and Administrative support for consortia based research in agriculture held at NAARM, Hyderabad during 22-27 February 2010.
- Seminar by Kenneth M Quinn, President, Council of Advisors of the WFP held at NASC Complex, New Delhi on 24 February 2010.
- Seminar on Climate change - Role of cooperatives held at NCUI, New Delhi on 25 February 2010.
- Seminar on The Union Budget 2010-11: Reform and development perspectives organised by NCAER, CPR, ICRIER, IDF & NIPFP held at Shangri-La Hotel, New Delhi on 06 March 2010.
- Training programme on Climate change, environmental sustainability and agricultural

development held at IARI, New Delhi during 09-29 March 2010.

- ICAR Zonal Technology Management & Business Planning and Development meeting-cum-workshop, 2009-10 North Zone held at IARI, New Delhi during 19-20 March 2010.
- Workshop-cum-Brainstorming session on Future technological needs for rainfed agriculture in India held at CRIDA, Hyderabad on 19 March 2010.
- Workshop on ICT initiatives of the NAIP with special reference to the uniformity guidelines for ICAR websites held at NBPGR, New Delhi on 19 March 2010.
- 33rd meeting of HLCC organized by Board of Revenue for Rajasthan, Ajmer held at Jaipur on 22 March 2010.
- Review meeting of Visioning, Policy Analysis and Gender (V-PAGE) at NCAP, New Delhi on 26 March 2010.
- Workshop on Risk assessment in agriculture held at TNAU, Coimbatore during 26-30 March 2010.

Related to Professional Societies

- Editorial Board meeting of Annals of Agricultural Research, the Journal of the Indian Society of Agricultural Sciences at Division of Agronomy, IARI, New Delhi.
- Executive Council meetings of Indian Society of Agricultural Sciences at KAB II of ASRB, New Delhi.
- An Executive Council meeting of Indian Society of Agricultural Statistics.
- Executive Council meetings of the Society of Statistics, Computers and Applications.
- Governing Body meeting of the Institute of Applied Statistics and Development Studies, Lucknow.

Trainings

- Sh. S.N. Islam participated in Training Programme on Entrepreneurship Development under Sustainable Farming System held at ICAR Research Complex for NEH Region, Sikkim Centre, Tadong, Gangtok during 25 May-14 June 2009 .
- Mohd. Samir Farooqi participated in Training Programme on Procurement Related Matters and Financial Management under NAIP held at NASC Complex during 12-13 August 2009.

- Sh. VH Gupta participated in the Winter School on Decision Making in Agriculture using Data Mining organized at NCAP, New Delhi during 27 October-16 November 2009.
- Dr. PK Malhotra attended the Special Training Programme for Vigilance Officers of ICAR Institutes organised at IISR, Calicut during 22-24 February 2010.
- Ms. Alka Arora and Ms. Shashi Dahiya attended Hands-on Training and Orientation Program held on Drupal at DIPA, ICAR, New Delhi during 9-12 March 2010.

Invited Lectures Delivered at Other Organisations

Dr. VK Bhatia

- A lecture on Functions and activities of IASRI during a workshop for four faculty members from University of Foreign Trade, Hanoi, Vietnam with funding from Swiss Agency for Development and Co-operation Bern (IDC) on 23 April 2009.
- A lecture on Statistical genomics and estimation of genetics parameters under a Continuing Education Programme on Biostatistical Methods for Life Sciences at Defence Institute of Physiology and Allied Sciences (DIPAS), Defence Research and Development Organization (DRDO), Delhi during 14 -18 September 2009.
- A lecture on Sampling design and methodology to assess the socio-economic conditions of fishers and fish farmers in India at Central Institute of Brackishwater Aquaculture, Chennai during 12-14 November 2009.

Dr. Rajender Parsad

- An invited lecture on Statistical designing and analytical techniques for varietal trials to the participants of the training programme in the area of Vegetable Variety Development and Evaluation for the officials of Ministry of Agriculture, Iraq sponsored by Food & Agriculture Organization of United Nations held at Division of Vegetable Science, IARI, New Delhi during 15 September - 14 October 2009.
- Four invited lectures on Design of experiments and Design resources server to the participants of the training programme on Statistical Analysis and Interpretation of Agroforestry Experimental Data

organized under the aegis of All India Co-ordinated Research Project on Agro-forestry at National Research Centre for Agroforestry, Jhansi during 11-13 February 2010.

- An invited lecture on Multivariate techniques: An overview to the participants of the training programme on Climate Change, Environmental Sustainability and Agricultural Development organized under the aegis of Centre of Advanced Faculty Training at Division of Agricultural Economics, IARI, New Delhi during 09-29 March 2010.
- 15 lectures on Introduction to statistical concepts, Tests of significance based on t, χ^2 and F-tests, GenStat: An overview, Analysis of variance, Correlation and regression, Fundamentals of design of experiments, Completely randomized designs, Randomized complete block designs and Latin square designs, Designs for factorial experiments, Split and strip plot designs, Response surface designs and Designs for Experiments with mixtures, Design resources server, Analysis of covariance, Diagnostics and remedial measures in designed experiments, Multivariate techniques: An overview to the participants of the training programme on Experimental Designs and Data Analysis organized for the CAC Staff at ICARDA, Tashkent during 01-05 June 2009.
- 34 lectures on Introduction to statistical concepts, Tests of significance based on t, χ^2 and F-tests, GenStat: An overview, Analysis of variance, Correlation, Regression, Fundamentals of designs of experiments, Completely randomized designs and Randomized complete block designs, Row-column designs, Designs for factorial experiments, Split plot designs, Strip plot designs, Resolvable block designs, Augmented designs, Designs for experiments with mixtures, Design resources server, Analysis of covariance, Diagnostics and remedial measures in designed experiments, Non-parametric tests, Analysis of multi-environment trials data, GGE biplot presentation, Multivariate analysis of variance, Principal component analysis, Cluster analysis, etc. to the participants of an International training programme on Advances in Design and Analysis of Experiments held at ICARDA, Aleppo Syria during 08-19 November 2009.

Dr. UC Sud

- Two lectures on Properties of estimator and estimation of non responses in training programmes on Sample Surveys and Organization of Large Scale Sample Surveys held at National Academy of Statistical Administration (NASA) organized by NASA, CSO, Ministry of Statistics and Programme Implementation, Greater Noida during 07-18 December 2009 and 08-19 March 2010.

Dr. KK Tyagi

- A lecture on Different aspect of sampling to the participants of a Methodological Training Programme on Impact Assessment of Improved Agricultural Technologies organized at NCAP, New Delhi during 26-28 August 2009.

Sh. OP Khanduri

- A lecture on Agricultural Field Experiments Information System to the participants of the Training Programme on Farming Systems held at Division of Agronomy, IARI, New Delhi.

Dr. Anil Rai

- A lectures in a Refresher Training Course on SPSS for Senior ISS officers from 22-26 March 2010 held at Ministry of Statistics and Programme Implementation, New Delhi.

Dr. Seema Jaggi

- A lecture on Application of Excel and SPSS package for data analysis to the participants of the Summer School on Tools and Techniques for Planning, Monitoring, Evaluation and Impact Assessment of Extension Programmes held at Division of Agricultural Extension, IARI, New Delhi during 21 July-10 August 2009.
- A lecture on Design of experiments for life sciences and Illustration of analysis through SPSS to the participants of Training Programme on Biostatistical Methods for Life Sciences under Continuing Education Programme held at Defence Institute of Physiology and Allied Sciences (DIPAS), Defence Research and Development Organization (DRDO), Delhi during 14-18 September 2009.
- Two lectures on Statistical methods for microbiology and SPSS for analysis of experimental data to the participants of the Winter School organized by Division of Microbiology, IARI, New Delhi during 17 November 07-December 2009.

- Three lectures on Testing of hypothesis, SPSS: An overview and Statistical designs for field experiments to the participants of the Training Programme on Methodological Advances in Extension Research held at Division of Agricultural Extension, IARI, New Delhi during 05-25 February 2010.
- Two lectures on Experimental designs for psychological research and Testing of hypothesis to the participants of the Training Programme on Application of Statistics in Research under continuing Education Programme held at Defence Institute of Psychological Research (DIPR), Defence Research and Development Organization (DRDO), Delhi during 15-19 February 2010.
- Two lectures on SPSS for regression analysis to the participants of Refresher Training Programme on SPSS for ISS officers and senior officers of the states/UTs organized by Ministry of Statistics and Programme Implementation, Government of India during 22-26 March 2010.

Dr. Ashok Kumar

- Two lectures on Economic surplus model and Yield gap analysis to the participants of the training programme on Methodological Advances in Extension Research held at the Division of Agricultural Extension, IARI, New Delhi during 05-25 February 2010.
- One lecture on Consumer, producer and economic surplus models and its application in agriculture to the participants of a Training Programme on Climate Change, Environmental Sustainability and Agricultural Development organised at IARI, New Delhi during 09-29 March 2010.

Dr. AR Rao

- A lecture on Multivariate analysis for life sciences to the participants of training programme on Biostatistical Methods for Life Sciences under Continuing Education Programme held at Defence Institute of Physiology and Allied Sciences (DIPAS), Defence Research and Development Organization (DRDO), Delhi during 14-18 September, 2009.
- A lecture on Test plot design and statistical analysis for vegetable research trial to the participants of the training programme in the area of Vegetable Variety Development and Evaluation for the officials of Ministry of Agriculture, Iraq sponsored by Food &

Agriculture Organization of United Nations held at Division of Vegetable Science, IARI, New Delhi during September 15 - October 14, 2009.

- A lecture on Overview of Bioinformatics and Potential application of data mining in Bioinformatics in a winter school on Decision making in agriculture using data mining during 27 October–16 November 2009 at NCAP, New Delhi.
- A lecture on Statistical approaches in molecular crop breeding to the participants of Winter School on Molecular marker-assisted crop breeding: principles, methods and applications held at Genetics division, IARI, New Delhi on 18 January 2010.
- A lecture on Statistical genomics in crop improvement to the participants of the training programme Molecular marker assisted breeding for crop improvement held at Division of Genetics, IARI on 23 February, 2010.
- A lecture on Principal components and factor analysis to the participants of the training programme on Application of Statistics in Research under continuing Education Programme held at Defence Institute of Psychological Research (DIPR), Defence Research and Development Organization (DRDO), Delhi during 15-19 February, 2010.
- A lecture on Multivariate Analysis for Extension Research to the participants of the training programme on Methodological Advances in Extension Research held under the aegis of Centre of Advanced Faculty Training at Division of Agricultural Extension, IARI, New Delhi during 05-25 February, 2010.
- A lecture on Multivariate and factor analysis to the participants of refresher training programme on SPSS for ISS officers and senior officers of the states/UTs organized by Ministry of Statistics and Programme Implementation, Government of India during 22-26 March, 2010.

Dr. Prachi Misra Sahoo

- A lecture on Remote sensing for crop acreage and production estimation in hilly region in a Winter School on Remote Sensing with Special Emphasis on Hyperspectral Remote Sensing held at IARI, New Delhi during 30 March-23 April 2009.
- Two lectures on Least square analysis and Time series analysis for Post Graduate Course in Remote

Sensing and GIS in the Centre for Space Science and Technology Education in Asia and the Pacific (CSSTEAP) affiliated to United Nations held at Indian Institute of Remote Sensing (IIRS), Dehradun.

Dr. Cini Varghese

- A lecture on Cross over designs and Designs for bioequivalence trials to the participants of Training Programme on Biostatistical Methods for Life Sciences under Continuing Education Programme held at Defence Institute of Physiology and Allied Sciences (DIPAS), Defence Research and Development Organization (DRDO), Delhi during 14 -18 September 2009.
- A lectures on Application of MS-Excel for data analysis to the participants of the Summer School on Tools and Techniques for Planning, Monitoring, Evaluation and Impact Assessment of Extension Programmes held at Division of Agricultural Extension, IARI, New Delhi during 21 July -10 August 2009.
- A lecture on Test plot designs and statistical analysis of data under vegetable trials for International Trainings of Food and Agricultural Organization at Horticulture Division, IARI, New Delhi on 25 September 2009.
- Two lectures on Application of MS excel for data analysis to the participants of the Training Programme on Methodological Advances in Extension Research held at Division of Agricultural Extension, IARI, New Delhi during 5-25 February 2010.
- Three lectures on Probability distributions, Change over designs and designs for bioequivalence trials and Data analysis using SPSS to the participants of the Training Programme on Application of Statistics in Research under continuing Education Programme held at Defence Institute of Psychological Research (DIPR), Defence Research and Development Organization (DRDO), Delhi during 15-19 February 2010.

Dr. Sudeep

- A lecture on MySql server in the Workshop-cum-Training Programe organized under AgroWeb project at DIPA, New Delhi on 11 March 2010.

Mohd. Samir Farooqi

- A lecture on Statistical procedures in IPM under PG-Course Principles and Practices of IPM PATH-123 held at NCIPM on 15 October 2009 .
- A lecture on An overview of SPSS in the CAS Training on Climate Change Environmental Sustainability and Agricultural Development held at Economics Division of IARI on 16 March 2010.

Dr. Tauqueer Ahmad

- Two lectures on Designing of questionnaires/schedules and Planning and execution of sample surveys for four faculty members of Vietnam University of Foreign Trade as part of the training programme organized by IIFT held at Indian Institute of Foreign Trade (IIFT), New Delhi on 09 May 2009.
- Two lectures on Variance estimation-I and Variance estimation-II in Training Programmes on Sample Surveys and Organization of Large Scale Sample Surveys held at National Academy of Statistical Administration (NASA) organized by NASA, CSO, Ministry of Statistics and Programme Implementation, Greater Noida during 07-18 December 2009 and 08-19 March 2010.

Sh. N Sivaramne

- A lecture on Econometric techniques held at National Power Training Institute, Faridabad on 9 February 2010.
- Two lectures on Project analysis techniques and Probit and Tobit regression models held at Division of Agricultural Extension, IARI during 18-22 February 2010.

Sh. Amrender Kumar

- A lecture on Classificatory techniques including LDA and Bayesian approach in a Winter School on Decision Making in Agriculture using Data Mining held at NCAP, New Delhi during 27 October–16 November 2009 .

Dr. Ramasubramanian V

- A lecture on Price forecasting: Statistical methods with emphasis on time-series modeling held at National Institute of Agricultural Marketing, Jaipur on 25 September 2009.

Sh. KK Chaturvedi

- A lecture on Development of Decision Support System using .Net framework in a Workshop-cum-

Training on Risk Assessment in Agriculture held at TNAU, Coimbatore during 26-30 March 2010.

VISIT ABROAD

Dr. VK Bhatia

- Visited as a participating member and as member of Indian Delegate of Technical Committee on Application of Statistical Methods (ISO/TC69 Technical Committee meeting) convened by Department of Standards, Ministry of Science, Technology and Innovations, Government of Malaysia at Kuala Lumpur, Malaysia during 13-19 June 2009.
- Visited Tunisia, Africa to participate in the Conference on Implementing the Strategy for Improving Agricultural Statistics in Africa during 01-05 February 2010.

Dr. AK Vasisht

- Visited University of Arizona, Tucson, USA on a Study Visit on Futures Trading in Agricultural Commodities during 25 March- 24 May 2009.

Dr. Rajender Parsad

- Invited as Consultant with the Computer and Biometrics Services Unit, ICARDA, Syria
 - To conduct a training programme on Experimental Designs and Data Analysis for CAC Staff at Tashkent during 01–05 June 2009.
 - To conduct a two week training programme on Advances in Design and Analysis of Experiments for the participants from National Agricultural Research Systems of Iraq, Iran, Azerbaijan, Sudan, Jordan, Uzbekistan, Lybia and Syria during 08–19 November 2009.

Dr. Hukum Chandra

- Deputed to attend SAE 2009 - Small Area Estimation, 2009 Conference held at Elche, Spain during 29 June - 01 July 2009.
- Deputed to attend ISI 2009 - 57th Session of the International Statistical Institute Conference held at Durban, South Africa during 16 – 22 August 2009.

Radio Talk/TV Interview

- डॉ. रंजना अग्रवाल ने 02.04.2009 को आकाशवाणी के राष्ट्रीय चैनल पर प्राचीन भारतीय गणितज्ञ आर्यभट्ट पर रेडियो वार्ता प्रसारित की ।