

List of Publications

Research Papers

1. Ahmad, T and Kathuria, OP (2010). **Estimation of crop yield at block level.** *Adv. Appl. Res.*, **2(2)**, 164-172.
2. Ahmad, T, Rai, A and Singh, R (2010). **Statistical evaluation of development of village's potential for agro forestry using GIS.** *Adv. Appl. Res.*, **2(2)**, 157-163.
3. Alam, W and Chaturvedi, A (2010). **Discriminating among overlapping parametric models and estimating survivorship function of insects mortality.** *Int. J. Comp. Sci. Math.*, **2(1)**, 1-10.
4. Bhardwaj, SP (2010). **Impact of global meltdown on agriculture – An exploratory study.** *Ind. J. Agric. Eco.*, **65(3)**, 497-507.
5. Chandra, Hukum (2010). **Small area estimation with binary variables.** *J. Ind. Soc. Agril. Statist.*, **64(3)**, 367-374.
6. Gandhi, RS, Kumar, Amit, Singh, Avtar and Paul, AK (2009). **Genetic analysis of stayability in dairy cattle: A review.** *Ind. J. Dairy Sci.*, **62**, 79-89.
7. Gangopadhyay, KK, Mahajan, RK, Parsad, Rajender, Kumar, Gunjeet, Meena, BL, Kar, Ranjan, Gambhir, Rajeev, Mishra, SK (2010). **Relative efficiency of experimental designs in evaluation of plant genetic resources.** *Ind. J. Plant Gene. Reso.*, **23(2)**, 164-167.
8. Ghosh, H, Paul, RK, and Prajneshu (2010). **GARCH and EGARCH non-linear time-series models for volatile data: An application.** *J. Statist. Appl.*, **5**, 177-193.
9. Gupta, VK, Singh, Poonam, Kole, Basudev and Parsad, Rajender (2009). **Construction of optimal mixed-level supersaturated designs.** *J. Ind. Soc. Agril. Statist.*, **63(3)**, 311-319.
10. Gupta, VK, Singh, Poonam, Kole, Basudev and Parsad, Rajender (2010). **Addition of runs to a two level supersaturated design.** *J. Statist. Plann. Inf.*, **140(9)**, 2531-2535.
11. Gupta, VK, Singh, Poonam, Kole, Basudev and Parsad, Rajender (2010). **Construction of efficient balanced and nearly balanced two-level supersaturated designs.** *J. Statist. Appl.*, **5(2)**, 179-194.
12. Gupta, VK, Singh, Poonam, Kole, Basudev and Parsad, Rajender (2010). **Computer aided construction of efficient multi-level supersaturated designs.** *J. Statist. Theo. Prac.*, **4(2)**, 221-231.

13. Iquebal, MA, Ghosh, H and Prajneshu (2010). **Application of genetic algorithm for fitting selfexciting threshold autoregressive non-linear time-series model.** *J. Ind. Soc. Agril. Statist.*, **64(3)**, 391-398.
14. Jaggi, Seema, Sarika and Sharma, VK (2010). **Response surface analysis incorporating neighbour effects from adjacent units.** *Ind. J. Agril. Sci.*, **80(8)**, 719-723.
15. Jaggi, Seema, Gill, AS, Varghese, Cini, Sharma, VK and Singh, NP (2011). **Statistical evaluation of fodder trees under an agroforestry system.** *The Ind. Forester*, **137(1)**, 113-120.
16. Jaggi, Seema, Varghese, Cini, Varghese, Eldho and Sharma, VK (2010). **Generalized incomplete trojantype designs.** *Statist. Probab. Lett.*, **80**, 706-710.
17. Kaul, Sushila and Ram, Ghasi (2009). **Impact of global warming on production of Jowar in India.** *Agril. Situation Ind.*, **66(5)**, 253-256.
18. Kole, Basudev, Gangwani, Jyoti, Gupta, VK and Parsad, Rajender (2010). **Two-level supersaturated designs: A review.** *J. Statist. Theo. Prac.*, **4(4)**, 589-608.
19. Kumar, Jitendra, Nisar, Keyath, Shakil, N.A., Walia, Suresh and Parsad, Rajender (2010). **Controlled release formulations of metribuzin: Release kinetics in water and soil.** *J. Env. Sci. Health, Part B: Pesticides, Food Contaminants, and Agricultural Wastes*, **45(4)**, 330-335.
20. Kundu, MG and Paul, AK (2010). **Phenotypic and genetic variability of estimated growth curve parameters in pigs.** *J. Ind. Soc. Agril. Statist.*, **64(3)**, 349-358.
21. Madke, PK, Lathwal, SS, Singh, Yajuvendra, Kumar, Anil and Kaushik, Vinay (2010). **Study of behavioural and physiological changes of crossbred cows under different shelter management practices.** *Ind. J. Anim. Sci.*, **80(8)**, 771-774.
22. Mandal, BN, Parsad, Rajender and Gupta, VK (2010). **Linear integer programming approach to construct distance balanced sampling plans.** *J. Ind. Soc. Agril. Statist.*, **64(2)**, 303-312.
23. Mandal, BN, Gupta, VK and Parsad, Rajender (2010). **Inclusion probability inversely proportional to size sampling.** *J. Statist. Appl.*, **5(1)**, 15-26.
24. Mandal, BN, Gupta, VK and Parsad, Rajender (2011). **Construction of polygonal designs using linear integer programming.** *Comm. Statist.-Theory Methods*, **40**, 1787-1794.
25. Mathur, DC and Sethi, SC (2010). **Estimation of productivity of coconut crop for different holding categories at blocks / districts level in Kerala state.** *Hry. Eco. J.*, **27(1-2)**, 101-102.

26. Meher, PK, Rao, AR, Wahi, SD and Jaggi, N (2010). [Detection of multivariate outliers in breeding data](#). *Intt. J. Statist Sys.*, **5(4)**, 527-535.
27. Parsad, Rajender, Rathore, Abhishek and Gupta, VK (2009). [Computer aided construction of efficient designs for making treatment-treatment and treatment-control comparisons](#). *Amer. J. Math. Manag. Sci.*, **29(1&2)**, 201-228. (Special Issue in memory of special volume on Bechhofer-Gupta-Sobel).
28. Pateria, Dinesh Kumar, Jaggi, Seema and Varghese, Cini (2009). [Self-neighbourhood strongly balanced block designs](#). *J. Ind. Statist. Assoc.*, **47(1)**, 1-14.
29. Paul, RK, Ghosh, H and Prajneshu (2010). [Wavelet frequency domain approach for statistical modelling of Indian monsoon rainfall time-series data](#). *J. Statist. Theo. Prac.*, **4**, 813-825.
30. Rao, AR, Choudhary, SK, Wahi, SD and Prabhakaran, VT (2010). [An index for simultaneous selection of genotypes for high yield and stability under incomplete genotype x environment data](#). *Ind. J. Genet.*, **70(1)**, 80-84.
31. Salvati, N, Chandra, Hukum, Giovanna, R and Chambers, R (2010). [Small area estimation using a nonparametric model based direct estimator](#). *Comput. Statist. Data Anal.*, **54(9)**, 2159-2171.
32. Sarkar, Ananta, Parsad, Rajender, Gupta, VK, Chatterjee, Kashinath and Rathore, Abhishek (2010). [Efficient row-column designs for microarray experiments](#). *J. Ind. Soc. Agril. Statist.*, **64(1)**, 89-117.
33. Sarkar, Basudeb, Verma, RPS, Parsad., Rajender and Shoran, Jag (2010). [Diversity among barley germplasm collection in India](#). *Ind. J. Genet. Plant Breed.*, **70(3)**, 234-239.
34. Sethi, SC, Pandey, PS and Mathur, DC (2009-2010). [Productivity analysis of rice in India](#). *Hry. Eco. J.*, **27(1-2)**, 149-151.
35. Sharma, VK, Gharde, Yogita and Varghese, Cini (2010). [Minimal strongly balanced changeover designs with first residuals](#). *African J. Math. Comp. Sci. Res.*, **3(9)**, 195-198.
36. Sharma, VK, Varghese, Cini and Jaggi, Seema (2010). [Tetrahedral and cubical association schemes with related PBIB\(3\) designs](#). *Model Assist. Statist. Appl.*, **5(2)**, 93-99.
37. Shukla, Rajesh, Rai, Anil and Monga, Nitasha (2010). [India protection index: An objective measurement of the economic and social well-being of the Indian population](#). *J. Appl. Eco. Res.*, **4(3)**, 339-367.
38. Singh, Anupma, Sarkar, Dhurba Jyoti, Parmar, Balraj S, Singh, AK, Parsad, Rajender and Kumar, Anil (2011). [Studies on novel nanosuper absorbent components: Swelling behaviour in different environments and effect on water absorption and retention properties of sandy loam soil and soil less medium](#). *J. Appl. Polymer Sci.*, **120**, 1448-1458.

39. Singh, DR and Kaviarasan, K (2010). **Growth and instability analysis of flower production in Tamil Nadu.** *Agril. Situation Ind.*, **66(12)**, 709-713.
40. Singh, S, Singh, S, Singh, OP, Adlakha, SK, Sikarwar, H and Ahmad, T (2008). **Reclamation and management of alkali soils – A decision support system.** *J. Soil Water Conser.*, **7(1)**, 25-32.
41. Singh, Surendra, Vasisht, AK, Paul, AK, Sharma, SC and Bhar, LM (2010). **The effect of farms on growth pattern of crossbred cattle.** *Ind. J. Anim. Sci.*, **80(4)**, 373-375.
42. Srinath, K, Nair, RV, Unnithan, GR, Gopal, N. Bathla, HVL and Ahmad, T (2008). **Post harvest losses in marine fisheries.** *Fish. Technol.*, **45(1)**, 109-112.
43. Srivastava, SK, Sivaramane, N and Mathur VC (2010). **Diagnosis of pulses performance of India.** *Agric. Eco. Res. Rev.*, **23(1)**, 137-148.
44. Sud, UC, Chandra, H and Chhikara, RS (2010). **Domain estimation in the presence of non-response.** *J. Ind. Soc. Agril. Statist.*, **64(3)**, 343-348.
45. Tyagi, KK, Singh, Jagbir, Kher, KK, Jain, VK and Singh, Surendra (2010). **Status and projection estimates of agricultural implements and machinery.** *Ind. Agril. Engg. Today*, **34(4)**, 5-14.
46. Varghese, Cini, Sonawane, MN, Jaggi, Seema and Sharma, VK (2010). **Repeated measurements designs for bio-equivalence trials.** *J. Statist. Appl.*, **5(1)**, 47-59.
47. Vasisht, AK and Singh, DR (2009). **An analysis of capital formation in fisheries sector in India.** *Asian Fish. Sci.*, **22(2)**, 823-837.
48. Yadav, DK, Singh, G, Jain, A, Paul, AK and Singh, S (2010). **A comparison of non-linear models for describing growth in Muzaffarnagar lambs under field conditions.** *Ind. J. Anim. Sci.*, **80(6)**, 581-583.

Popular Articles

सांख्यिकी-विमर्श 2010-11, अंक-6 में प्रकाशित लेख

- कृष्ण कान्त त्यागी, अशोक कुमार एवं विजय बिन्दल । **संस्थान के कीर्तिस्तम्भ : प्रोपफ़ेसर मनीन्द्र नाथ दास**, 1-2
- विजय कुमार भाटिया । **कृषि अनुसंधान सांख्यिकीविदों के राष्ट्रीय सम्मेलन – एक अवलोकन**, 18-20
- कृष्ण कान्त त्यागी, जगबीर सिंह, केवल कृष्ण खेर, विनय कुमार जैन एवं सुरेन्द्र सिंह । **कृषि उपकरण एवं यंत्रों के स्तर तथा प्रक्षेपण आकलन पर अध्ययन**, 21-32

- कृष्ण लाल, राजेन्द्र प्रसाद, विनोद कुमार गुप्ता एवं प्रमोद कुमार । प्रवृत्ति – मुक्त ब्लॉक अभिकल्पनाएँ एवं इनकी सरंचना, 33–38
- आत्मकूरि रामाकृष्ण राव, उदय प्रताप सिंह, संत दास वाही एवं शिव कुमार चौधरी । अपूर्ण जीनोटाईप X पर्यावरण आँकड़ों पर आधारित अधिक पैदावार एवं स्थिरता वाले जीनोटाईप के युगपत चयन हेतु एक सूचक, 39–43
- संत दास वाही, सुकान्त दास, आत्मकूरि रामाकृष्ण राव एवं विजय पाल सिंह । कृत्रिम तंत्रिकीय तंत्र पर आधारित विधि द्वारा मक्का जीनरूपों का वर्गीकरण, 44–46
- अमृत कुमार पॉल, सुब्रत केसरी बेहरा, सन्त दास वाही एवं अनिल गर्ग । प्रसरण विश्लेषण विधि द्वारा मासटार्टिस रोग की अनुवांशिकता का अनुमान, 47–49
- सुरेन्द्र सिंह, अशोक कुमार, अमृत कुमार पॉल तथा राम नरेश । विभिन्न फार्मों पर रखने से संकरित गायों के विकास का अध्ययन एवं मूल्यांकन, 50–53
- जगबीर सिंह, कृष्ण कान्त त्यागी, केवल कृष्ण खेर, अशोक कुमार एवं विनय कुमार जैन । ऊर्जा उपयोग से खेती प्रथाओं, संसाधनों एवं गतिविधियों के विस्तार का आकलन, 54–58

Book Chapters

1. Bhardwaj, SP (2010). [Managing supply chain in agriculture sector](#), e-published in the proceeding of Second Annual Conference of the Indian Society of Agri-Business management held at IIM, Lucknow, 1-19.
2. Bhatnagar, Vasudha and Ahuja, Sangeeta (2010). [Robust clustering using discriminant analysis](#). *Advances in Data Mining: Applications and Theoretical Aspects*, Lecture Notes in Computer Science. Springer-Verlag Berlin, Heidelberg, **6171**, 143-157.

Project Reports

1. Alam, W, Rao, AR, Singh,P, Wahi, SD and Prabhakaran, VT (2010). [Some investigations on robust clustering procedures](#), IASRI, New Delhi.
2. Bhatia ,VK, Vasisht, AK, Singh, DR, Bhardwaj, SP, Kumar, Ashok , Arya, Prawin, Sivaramane N and Kaul, Sushila (2010). [An Analysis of Market integration of major agricultural commodities in India](#). A report of Sub-programme III: Policy Analysis and Market Intelligence of Visioning, Policy Analysis and Gender (V-PAGe) project under NAIP, IASRI, New Delhi.
3. Singh, Jagbir, Tyagi, KK, Kher, KK, Gupta, AK and Jain, VK (2010). [Estimation of extent of farming practices, resources and activities with energy use](#). IASRI/PR-05/2010, IASRI, New Delhi.
4. Kumar, Amrender, Ramasubramanian V and Agrawal, Ranjana (2010). [Neural network based forecast modeling in crops](#). IASRI/PR-07/2010, IASRI, New Delhi.

5. Lahiri, Alope, Gupta, VK, Rao, A Subba, Muralidharan, Y, Parsad, Rajender and Rathore, Abhishek (2010). [Planning, designing and analysis of experiments relating to AICRP on STCR](#). IASRI/PR-08/2010, IASRI, New Delhi.
6. Chandrahas, Agrawal, Ranjana and Walia, SS (2010). [Use of discriminant function and principal component techniques for weather based crop yield forecast](#). IASRI/PR-09/2010, IASRI, New Delhi.
7. Kumar, Ashok and Bhardwaj, SP (2010). [Econometric study of long-run effect of public investment in irrigation on food grains productivity](#). IASRI/PR-10/2010, IASRI, New Delhi.
8. Tyagi, KK, Singh, Jagbir, Kher, KK, Jain, VK and Singh, Surendra (2010). [Study on status and projection estimates of agricultural implements and machinery](#). IASRI/PR-11/2010, IASRI, New Delhi.
9. Dahiya, Shashi, Goyal, RC, Chaturvedi, KK, Bharadwaj, Anshu, Jaggi, Seema, Varghese, Cini (2010). [An eLearning system for agricultural education](#). Technical Project Report. IASRI/PR-12/2010, IASRI, New Delhi.
10. Sharma, Anu, Varghese, Cini and Jaggi, Seema (2010). [Web based solution for partially balanced incomplete block designs](#). IASRI/PR-13/2010, IASRI, New Delhi.
11. Rai, Anil, Malhotra, PK, Jaggi, S, Chaturvedi KK, Farooqi, S and Sahoo, PM (2010). [Knowledge data warehouse for agricultural research](#). IASRI/PR-14/2010, IASRI, New Delhi.
12. Islam, SN, Farooqi, Samir, Chaturvedi, KK, Agarwal, Hari Om, Sikarwar, Harnam Singh (2010). [Strengthening, refining and implementation of expert system on wheat crop management](#). IASRI/PR-15/2010, IASRI, New Delhi.
13. Singh, DR, Arya, Prawin, Kumar, Ashok and Sivaramane, N (2010). [An econometric analysis of groundwater markets in Indo-Gangetic plains of India](#). IASRI/PR-16/2010, IASRI, New Delhi.
14. Kumar, Anil, Kaur, Rajinder and Sharma, VK (2010). [A Statistical investigation on production, economic and potential of crop sequences in different agro ecosystems](#). IASRI/PR-17/2010, IASRI, New Delhi.
15. Arora, Alka, Farooqi, Samir, Dahiya, Shashi, Singh, Balbir and Rai, Anil (2011). [Decision support system for manpower planning-PERMISSnet](#). IASRI/PR-01/2011, IASRI, New Delhi.
16. Varghese, Cini and Jaggi, Seema (2011). [Generalised row-column designs for agricultural experiments](#). IASRI/PR-02/2011, IASRI, New Delhi.

Technical Bulletin

1. Sharma, NK, Batra, PK, Gangwar, B, Parsad, Rajender (2010). [Fertilizer response ratios for different crops](#). IASRI/TB-01/2010. Joint publication of IASRI, New Delhi and PDFSR, Modipuram.

Reference Manuals

1. [Early Warning System for Food Security](#). IASRI, New Delhi. (2010, Eds. Ranjana Agrawal).
2. Goyal, RC, Malhotra, PK, Sudeep, Arora, Alka and Singh, Pal (2010). [Data management in PIMSICAR](#). IASRI, New Delhi.
3. Goyal, RC, Malhotra, PK, Sudeep, Arora, Alka and Singh, Pal, Gupta, PL, Grover, Rajni, Saini, RK and Chand, Subhash (2010). [Data Management in NISAGENET Project](#). IASRI, New Delhi.
4. [Development of Expert Systems in Agriculture](#): IASRI, New Delhi (2010, Eds. Sudeep, RC Goyal, Alka Arora, Pal Singh, HO Agarwal and Pratap Singh).
5. [Research Methodology for Socio-Economic Surveys](#). Training programme for NCAER Research Personnel from 19 October to 4 November 2010 (2010, Eds. Seema Jaggi, Anil Rai and AR Rao).
6. RC Goyal, PK Malhotra, Soumen Pal, Alka Arora, Pal Singh, PL Gupta, Rajni Grover, RK Saini and Subhash Chand (2011). [Schedules for Primary Data Collection for NISAGENET](#). IASRI, New Delhi.
7. [Data Analysis Using SAS](#), E-manual also prepared and available at http://web.iasri.res.in/nars/sas_manual/CONTENTS.html. (2011, Eds. Rajender Parsad).
8. [Data Analysis of Agroforestry Experiments Using SAS](#). E-manual also prepared and available at http://web.iasri.res.in/nars/Agro/agroforestry_ex.htm. (2011, Eds. Rajender Parsad)

Macros Developed

1. Parsad, Rajender, Dhandapani, A and Khandelwal, Manoj Kumar (2011). [SAS Macro for Analysis of Data from Augmented Block Designs](#). http://web.iasri.res.in/nars/Augmented_Macro/micro_sas.htm.

Other Periodical Publications

- [Annual Report of the Institute, 2009-10](#)
- [IASRI News \(published quarterly\)](#)