- Research Achievements
- Human Resource Development
- Conferences/Workshops etc. Organised
- Panorama of Activities
- Publications
- Invited Lectures Delivered
- Participation
- Computing Facilities
- Consultancy/Advisory Services

निदेशक की कलम से . . .

समाचार पत्र के इस अंक में प्रतिवेदनाधीन अवधि के दौरान प्रमुख अनुसंधानिक एवं प्रशिक्षण सम्बन्धी उपलब्धियों और संस्थान की अन्य महत्वपूर्ण गतिविधियों पर प्रकाश डाला गया है ।

सांख्यिकीय संगणना के लिए एक पोर्टल आरम्भ किया गया जो सॉफ्टवेयर को सेवा के तौर पर संचालित कर सेवा-आधारित संगणना उपलब्ध कराता है । राष्ट्रीय कृषि अनुसंधान प्रणाली (एन.ए.आर.एस.) में सांख्यिकीय संगणना पैकेज के प्रयोग में प्रशिक्षित मानव संसाधन विकास के लिए, एस.ए.एस. द्वारा आँकड़ों का विश्लेषण पर भा.कृ.सां.अ.सं., नई दिल्ली तथा एन.ए.आर.एस. के लिए सांख्यिकीय संगणना के सुदृढ़ीकरण पर एन.ए.आई.पी. कन्सोर्टियम के अन्तर्गत इसके 08 अन्य कन्सोर्टियम सहयोगी केन्द्रों में 23 शोधकर्ता प्रशिक्षण कार्यक्रम आयोजित किये गये ।

संस्थान में सांख्यिकीय एवं संगणक अनुप्रयोग में उन्नत संकाय प्रशिक्षण केन्द्र के अन्तर्गत कृषि में सांख्यिकीय मॉडलिंग पर एक 21 दिवसीय प्रशिक्षण कार्यक्रम आयोजित करने के साथ-साथ विभिन्न प्रशिक्षण कार्यक्रम आयोजित किये गये ।

कृषि अनुसंधान एवं शिक्षा विभाग के सचिव एवं भा.कृ.अनु.प. के महानिदेशक द्वारा एन.ए.एस.सी. परिसर, नई दिल्ली में आयोजित निदेशकों की बैठक के दौरान 24 फरवरी, 2011 को मसालों के बीजों पर विशेषज्ञ तंत्र एवं AgriDakh को लॉन्च किया जाना इस अवधि की एक महत्वपूर्ण उपलब्धि है ।

निसेजनेट के नॉडल अधिकारियों के लिए आनन्द कृषि विश्वविद्यालय एवं भा.कृ. सां.अ.सं., नई दिल्ली में भा.कृ.अ.प. के शिक्षा विभाग के साथ संयुक्त रूप से सेन्सीटाइजेशन एवं प्रशिक्षण कार्यशालाएँ आयोजित की गयीं ।

संस्थान ने भा.कृ.अ.सं., नई दिल्ली द्वारा आयोजित कृषि विज्ञान मेले में भी सहभागिता की ।

संस्थान के वैज्ञानिकों द्वारा अनेक शोध-पत्र प्रकाशित किये गये तथा अनेक बैठकों/ सम्मेलनों/संगोष्ठियों/कार्यशालाओं इत्यादि में सहभागिता की गयी ।

आशा है कि इस अंक की विषय-वस्तु एन.ए.आर.एस. के वैज्ञानिकों के लिए सूचनाप्रद एवं उपयोगी होगी । समाचार पत्र की विषय-वस्तु में सुधार लाने हेतु आपके सुझावों का स्वागत है ।

(विजय कुमार भाटियां)

From Director's Desk . . .

This newsletter highlights some of the salient research and training achievements made and other significant activities performed during the period under report.

A statistical computing portal has been initiated which provides Service-oriented computing through software as a service. To develop trained human resource in NARS in the usage of high end statistical computing package, 23 researchers training programmes on Data Analysis using SAS were organised at IASRI, New Delhi and its 08 other Consortia Partners under NAIP Consortium on Strengthening Statistical Computing for NARS.

Various training programmes including a 21 days Training Program on Statistical Modeling in Agriculture under Center of Advanced Faculty Training(CAFT) in Statistics and Computer Applications were organised at the Institute. A very important achievement during this period was the launch of AgriDakh and Expert System on Seed Spices by Secretary, DARE and Director General, ICAR on February 24 2011 during Directors Meeting held at NASC Complex, New Delhi.

Sensitization cum Training Workshops for the Nodal Officers of NISAGENET have been organized jointly with Education Division of ICAR at Anand Agricultural University, Anand and IASRI, New Delhi. Institute also participated in Krishi Vigyan Mela organised at IARI, New Delhi

The scientists of the Institute published many research papers and participated in in number of meetins/ conferences/ symposia/ workshop, etc.

It is hoped that the contents of this document would be informative and useful for scientists in NARS. Any suggestions for improving the contents of the newsletter further would be highly appreciated.
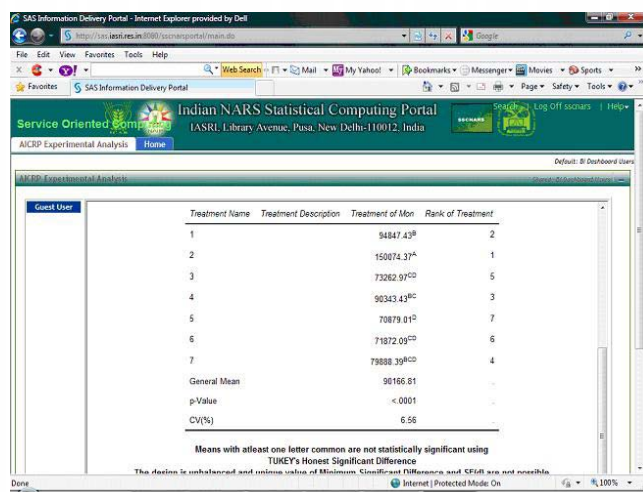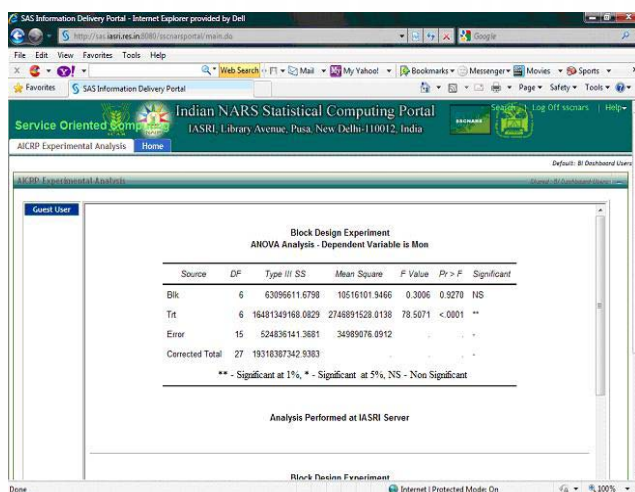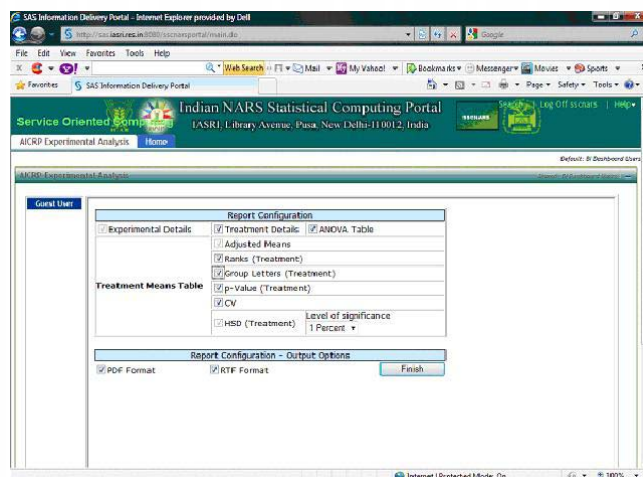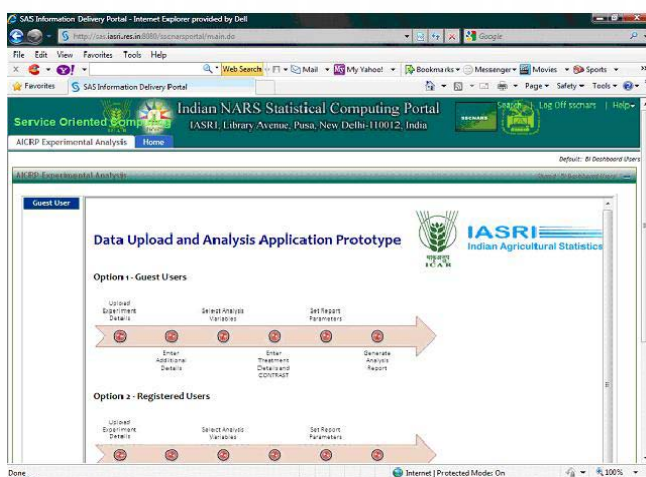
(VK Bhatia)

RESEARCH ACHIEVEMENTS

Service Oriented Computing Services Initiated

- Service-oriented computing consists of the computing techniques that operate on software-as-a-service. For providing a service oriented computing to Indian NARS users, a Portal has been established under NAIP Consortium on Strengthening Statistical Computing for NARS which is available to NARS users through IP authentication at http://stat.iasri.res.in:8080/sscnarsportal. Any researcher from Indian NARS may obtain User name and password from Nodal Officers of their respective NARS organizations, list available at www.iasri.res.in/sscnars. Analysis of data generated from any block design (complete or incomplete) and split plot design is available on this portal. Some Screen Shots are given below:

- **Secretary, DARE and DG, ICAR launched AgriDakh and Expert System on Seed Spices on February 24 2011 during Director's Meeting held at NASC Complex, New Delhi.**

AgriDaksh

AgriDaksh, a tool for building online expert system, has been developed at Division of Computer Applications, Indian Agricultural Statistics Research Institute, New Delhi. AgriDaksh has modules on Knowledge Model Creation, Knowledge Acquisition, Problem Identification, Knowledge Retrieval, Ask Questions to Experts and Administration. AgriDaksh enables domain experts to build online expert system in their crops with minimal intervention of knowledge engineers and programmers. With its use, it is possible to build online expert system for each and every crop in shorter time and resources. Online expert systems have the capability to transfer location specific technology and advice to the farmers efficiently and effectively. This in turn will reduce losses due to diseases and pests infestation, improve productivity with proper variety selection and increase in income of the farmer. **Maize AgriDaksh** is the first system developed by IASRI in collaboration with Directorate of Maize Research, New Delhi using AgriDaksh. Maize AgriDaksh provides ICT based advisories on Maize Crop and allows interaction with experts using Internet. Maize AgriDaksh is available online at http://expert.iasri.res.in/agridaskh.

Expert System on Seed Spices

Expert System on Seed Spices (EXPSS) has been developed by the Division of Computer Applications, IASRI in collaboration with NRC Seed Spices, Ajmer. This expert system extends large amount of research work done by the NRCSS and SAU's pertaining to crop management on 4 major and 6 minor seed spices to the farmers in a scientific way. It provides expert advice to farmers on variety selection, field preparation, fertilizer application, schedule of irrigation, plant protection from pests/diseases/nematodes. It also provides solution to the problems faced by the farmers through online queries. It helps in identifying insect/pest attack and suggests remedial measures. This system will help in transfer of technology for the enhancement of production level of seed spices. It is an integrated system which addresses all aspects of seed spices crop management in India. EXPSS is available online at http://iasri.res.in/expss.

HUMAN RESOURCE DEVELOPMENT

Training Programmes:

Training Programme on Data Analysis using SAS:

To develop trained human resource in NARS in the usage of high end statistical computing package, 23 researchers training programmes on **Data Analysis using SAS** were organized under NAIP Consortium Strengthening Statistical

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**The schedule of Training Programme
on Data Analysis using SAS**

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SNo.	Organized by/at	Dates	No. of Participants
1	IASRI, New Delhi	January 10 – 15, 2011	22
2	IASRI, New Delhi	January 17 – 22, 2011	23
3	IASRI, New Delhi	January 31 – February 05, 2011	20
4	IASRI, New Delhi	February 21 – 26, 2011	23
5	NDRI, Karnal	January 10 – 15, 2011	14
6	NDRI, Karnal	January 24 – 31, 2011	21
7	NDRI, Karnal at CIRB, Hisar	March 07 – 12, 2011	25
8	IVRI, Izatnagar	January 15 – 20, 2011	15
9	IVRI, Izatnagar	February 21 – 26, 2011	17
10	MPUA &T, Udaipur	January 10 – 15, 2011	20
11	MPUA &T, Udaipur	February 14 – 19, 2011	20
12	DWM, Bhubaneshwar at Birsa Agricultural University, Ranchi	January 17 – 22, 2011	26
13	DWM, Bhubaneshwar at JNKVV, Jabalpur	January 24 – 29, 2011	27
14	DWM, Bhubaneshwar at CIFRI, Barrackpore	February 14 – 19, 2011	33
15	DWM, Bhubaneshwar at CARI, Port Blair	March 02 – 09, 2011	37
16	ICAR RC NEHR, Barapani	January 13 – 19, 2011	20
17	ICAR RC NEHR, Barapani	March 07 – 12, 2011	20
18	GKVK UAS Bangalore	January 17 – 22, 2011	18
19	GKVK UAS Bangalore at CTCRI,Thiruvananthapuram	March 03 – 09, 2011	25
20	NAARM, Hyderabd	January 19 – 25, 2011	26
21	NAARM, Hyderabd	March 21 – 26, 2011	17
22	NNDRI, Karnal	March 22 – 28, 2011	16
23	CIFE, Mumbai	March 22 – 28, 2011	13

Computing for NARS at IASRI, New Delhi and its 08 other Consortia Partners. A total of 496 researchers were trained in these training programmes.

These training programmes were aimed at acquainting the participants with the Capabilities of SAS and JMP Statistical Discovery Softwares and to provide hands on experience on the usage of SAS. The reference manual was provided to the participants during the beginning of the training programmes. The lectures on SAS for Statistical Procedures; Regression Diagnostics and Remedial Measures; Time-series Analysis Modeling and Forecasting using SAS; Fitting of Nonlinear Statistical Models Using SAS; Analysis of Repeated Measures Data Using SAS; Statistical Genetics Using SAS; SAS Macros for Genetics Analysis; Design Resources Server; SAS Enterprise Guide: An Overview; JMP Statistical Discovery Software.

The details of the Training Programmes on Data Analysis using SAS organised at IASRI is given in the sequel:

- **Data Analysis using SAS** was organized during January 10-15, 2011. The training programme was inaugurated by **Dr. R.C. Agrawal, National Coordinator, NAIP, New Delhi**. This training programme was attended by 22 participants from NRCPB, New Delhi; IAS, BHU, Varansi; IARI, New Delhi; DMR, New Delhi; NBPGR, New Delhi; IISR, Lucknow; IGFRI, Jhansi and PDKV, Akola. The valedictory function of the training programme was organized on January 15, 2011 and the valedictory address was delivered by **Dr. A K Singh, DDG (NRM), ICAR, New Delhi.**

- **Data Analysis of Agroforstry Experiments using SAS** was organized for the research personnel of AICRP on Agroforestry during January 17-22, 2011. The training programme was inaugurated by **Dr. S.K. Dhyani, Director, National Research Centre of Agroforestry, New Delhi**. This training programme was attended by 23 participants from NRC AF, Jhansi; OUAT, Bhubaneshwar; TNAU, Coimbatore; BSKKV, Dapoli; UAS, Dharwad; NDUA&T, Faizabad; RAU, Fatehpur; CCS HAU, Hisar; ANGRAU, Hyderabad; JNKVV, Jabalpur; TNV&ASU, Kattaupakkam; PAU, Ludhiana; AAU, Kahikuchi; GBPUA&T, Pantnagar; RAU, Samastipur; MPKV, Rahuri; IGKV, Raipur; GAU, SK Nagar; SKUAST, Srinagar; KAU, Thrissur; BCKV, Kalyani and UAS, Bangalore. The valedictory function of the training programme was organized on January 22, 2011 and the valedictory address was delivered by **Dr. Arvind Kumar, DDG (Education), ICAR, New Delhi.**

- A researchers training programme on **Data Analysis using SAS** was organized during January 31- February 05, 2011. The training programme was inaugurated by **Dr. OM Bambawale, Director, NCIPM,** New Delhi. This training programme was attended by 20 participants from IARI, New Delhi; Institute of Agricultural sciences, BHU, Varanasi; DMR, New Delhi; DSR, Indore; IGFRI, Jhansi; NRC AF, Jhansi; NBPGR, New Delhi; RVSKV, Gwalior; IISR, Lucknow; IISS, Bhopal and IASRI, New Delhi The valedictory function of the training programme was organized on February 05, 2011 and was addressed by **Dr. R.C. Agrawal, National Co-ordinator, NAIP, ICAR, New Delhi.**

- A researchers training programme on **Data Analysis using SAS** was organized during February 21-26, 2011 under NAIP Consortium Strengthening Statistical Computing for NARS with Dr. Rajender Parsad as Course Director. The training programme was inaugurated by **Dr. Madhuban Gopal, National Fellow, IARI, New Delhi**. This training programme was attended by 23 participants from BHU, Varanasi; IIVR, Varansi; Directorate of mushroom Research, Solan; IGFRI, Jhansi; NRC Litchi, Muzzafarpur; PDKV, Akola; AC, Nanded; TNAU (Forest College and RI); IARI, New Delhi; NBPGR, New Delhi; Directorate of Floricultural Research, New Delhi; NCAP, New Delhi and PDC, Meerut. The valedictory function

of the training programme was organized on February 26, 2011 and **Dr. RK Gupta, South Asia Co-ordinator, CIMMYT** delivered the valedictory address.

Training Programme under CAFT:

- A 21 days Training Program on **Statistical Modeling in Agriculture** was organised at IASRI, New Delhi under Centre of Advanced Faculty Training(CAFT) in Statistics and Computer Applications during February 15 - March 07, 2011 in which 24 participants from NARS attended. The training program was aimed to educate the participants on the current developments in Statistical Modelling in Agriculture and to acquaint them with Software Packages in Statistical Modelling. The course has been structured in a series of modules with classroom lectures and practical sessions on different modelling using statistical software packages. The emphasis has been given to demonstrate the use of SAS software package currently available in all NARS organisations. The participants are also given the opportunity to present the problems which they face in their respective fields. A balance with respect to various disciplines in Agriculture like Agricultural Statistics, Computer Applications, Agriculture Engineering, Soil Science has been taken care of in this Training Programme. Course material has been provided to all the participants. The course content is divided into five modules which are as follows:

Module 1.   Software Packages, SPSS, SAS

Module 2.   Regression Analysis, Logistic Regression, Forecasting Techniques

Module 3.   Nonlinear Statistical Modelling , Nonlinear Growth Models with i.i.d. Errors, Nonlinear Growth Models with Autocorrelated Errors

Module 4.   Time Series Analysis, ARIMA Time Series Modelling, Nonlinear Time Series Modelling

Module 5.   Soft Computing, Fuzzy Linear Regression, Artificial Neural Network, Data Mining

Four guest faculty Dr. Prem Narain, Ex-Director IASRI, Dr. S. Ravichandran, DRR, Hyderabad, Dr. S.R Singh, BHU, Varanasi and Dr. T.V. Sathianandan, CMFRI, Kochi have delivered lectures in this Training Programme on VARIMA, Structural and Fuzzy Time Series Modelling, modelling in Genetic Statistics along with one faculty from Indian Statistical Institute, New Delhi who delivered lecture on R Software.

The training was inaugurated by **Dr. M.M. Pandey, DDG(Engg.) ICAR, New Delhi** on February 15, 2011 and valedictory address was delivered by **Dr. C. Devakumar, ADG(HRD), ICAR, New Delhi**

Other Training Programme

- Dr. A.R. Rao conducted a training programme on Statistical and Computational genomics data analysis from January 11- 21, 2011 at Statistical and Computational Genomics Lab Facility of CABin. This training programme was attended by 26 participants from National Research Centre for Groundnut, Junagarh, Gujarat; Central Inland Fishries Research institute, Barrackpore; Central Rice Research Institute, Cuttack; Directorate of Coldwater Fisheries Research, Bhimtal; ICAR Research Complex for NEH Region, Meghalaya; Central Institute of Fisheries Technology, Cochin; Central Marine Fisheries Research Institute, Cochin; Central Institute for Research on Goats, Mathura; National Bureau of Animal Genetic Resources, Karnal; National Research Centre on Plant Biotechnology, New Delhi and Indian Agricultural Research Institute, New Delhi.

- Sh. S.B. Lal conducted sensitization training programme on Bioinformatics Resources and Tools for Agricultural Research during January 24- 29, 2011. 17 participants including scientists, technical officers and research associates from National Bureau of Agriculturally Important Insects, Bangalore; Central Potato research Institute, Shimla; National Research Centre on Equines, Hissar; National Academy of Agricultural Research Management, Hyderabad; Central Institute of Fisheries Education, Mumbai and Indian Agricultural Research Institute, New Delhi attended the training programme.

PANORAMA OF ACTIVITIES
Workshops:

The NISAGENET has been maintained as a regular ongoing activity of the council and it is mandatory for all the agricultural universities and their constituent/affiliated colleges to participate and become part of this network. It is accessible at http://www.iasri.res.in/Nisagenet/ to provide Country/State/University/College level reporting on agricultural education in India.

In order to provide realistic and up-to-date reporting through NISAGENET, 2 Sensitization cum Training Workshops for the Nodal Officers have been organized by the Education Division of ICAR and IASRI at the following two locations:

1. Anand Agricultural University, Anand during 22-23 March 2011
2. IASRI, New Delhi during 28-29 March 2011

15 and 21 Nodal Officers and their Associates from different agricultural universities participated in the workshops at the above locations respectively.

In the workshops a brief introduction on NISAGENET along with the objectives and the role and responsibilities of Nodal Officers at their respective university were discussed. The procedural flows as well as the working of the system including access rights of the Nodal Officer were demonstrated. Live demonstrations cum practical session on the data management module were presented. Reference guides for data management has been prepared and made accessible on NISAGENET site for the Nodal Officers.

Seminar Delivered

Seminars in different areas of Agricultural Statistics and Computer Application were delivered. These seminars include presentation of salient findings of the completed research projects by the scientists, thesis/ORW/course seminars of students of M.Sc. and Ph.D. (Agricultural Statistics) and M.Sc. (Computer Application) and Guest Seminars.

Guest seminar during the period was delivered by Dr.K.V. Palanichamy, Director,Biostatistics and Statistical Programming Kendle Data and Technologies(Pvt) Ltd., Ghandhinagar

The Details of Seminars Delivered

Category	Type of seminar	Number
Student	Course	09
	ORW	13
	Thesis	03
Scientist	Project Proposal	02
	Mid Term Project	03
	Project completion	03
	Training	01
	General	02
Guest		01
Total		**37**

PUBLICATIONS

Research Papers:

- Ahmad, T and Kathuria, OP (2010). Estimation of crop yield at block level. *Adv. Appl. Res.*, **2(2)**, 164-172.
- 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.
- 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. *Indian J. Plant Gene. Reso.*, **23(2)**, 164-167.
- 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.
- Jaggi, Seema, Gill, AS, Varghese, Cini, Sharma, VK and Singh, NP (2011). Statistical evaluation of fodder trees under an agroforestry system. *The Indian Forester*. **137(1)**, 113-120.
- Kole, Basudev, Gangwani, Jyoti, Gupta, VK and Parsad, Rajender (2010). Two-level supersaturated designs: A review. *J. Statist. Theo. Pract.*, **4(4)**, 589-608
- Mandal, BN, Gupta, VK and Parsad, Rajender (2010). Inclusion probability inversely proportional to size sampling. *J. Statist. Appl.*, **5(1)**, 15-26.
- 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.
- Singh, DR and Kaviarasan K (2010). Growth and instability analysis of flower production in Tamil Nadu. *Agricultural Situation in India*, **66 (12)**, 709-713.
- Srivastava, SK, Sivaramane, N and Mathur, VC (2010). Diagnosis of pulses performance of India. *Agricultural Economics Research Review*, **23(1)**, 137-148.
- Tyagi, KK, Singh, Jagbir, Kher, KK, Jain, VK and Singh, Surendra(2010). Status and Projection Estimates of Agricultural Implements and Machinery in India. *Agril. Engg. Today*, **34(4)**, 5-14.

Research Project Reports Published

- Sharma, Anu, Varghese, Cini and Jaggi, Seema (2010). Web Based Solution for Partially Balanced Incomplete Block Designs. *IASRI, New Delhi* **(IASRI/PR-13/2010)**.

Other Publication

- IASRI News, October-December, 2010. (Available at the website of the Institute at http://www.iasri.res.in/NewsLetters/Oct-Dec2010.pdf

Research Papers Presented in the Conference

- 13th Conference of Society of Statistics, Computer and Applications held at NAARM, Hyderabad during February 24-26, 2011
  - Parsad, Rajender and Gupta, VK. Design Resources Server and Service Oriented Computing. (Invited Talk).
  - Sarkar, Susheel Kumar, Krishan Lal, Parsad, Rajender and Gupta, VK. Generation of fractional factorial experiments robust against linear-trend.
  - Ramasubramanian V., Kumar, Amrender, Bhatia, VK and Premi, Sarvesh Kumar. Technology forecasting applications for prioritizing factors in rainfed agriculture.
- National Seminar on *Recent Developments in Sampling Techniques and its Application* organized by Maharashi Dayanand University, Rohtak during March 26 -27, 2011.
  - Parsad, RajenderOptimal Controlled Sampling Plans (Invited Talk).
  - Sud, UC. Small area estimation and its appication (Invited Talk).

INVITED LECTURES DELIVERED

- Sh. H.O. Aggarwal delivered four lectures on Knowledge Management for Varieties, insects, pests and diseases in Agridaksh in the training program Innovative Extension Models for Sustainable Agriculture, conducted by Agricultural Extension Division of IARI during January 04- 24, 2011.
- Sh. Pal Singh delivered two lectures on MS Front page and involved in practical sessions in 21 days CAFT training programme entitled Innovative Extension Models for Sustainable Agriculture organized at IARI extension division during January 04-24, 2011.
- Dr. Sudeep conducted two days training at IASRI during January 15-17, 2011 as a part of 21 days CAFT training programme entitled Innovative Extension Models for Sustainable Agriculture organized at Division of Agricultural Extension, IARI during January 04- 24, 2011.
- Dr. Ranjana Agrawal delivered a lecture and Sh. Amrender Kumar conducted a practical session on Preharvest Forecast of Crop yield- IASRI approach in a training programme on Use of crop simulation models for yield forecasting under FASAL project at IMD, Mausam Bhawan, New Delhi for the Senior Research Fellow working at various AAS units of IMD during January 17-28, 2011.
- Dr. N. Sivaramane delivered 4 lectures on Base-SAS at University of Agricultural   Science, Bangalore, GKVK during January17-18, 2011.
- Dr. Anil Rai delivered a lecture on Synonymous Codon Usage in the Sensitization training programme under NABG project at NBFGR New Delhi during January 24- 28, 2011 .
- Dr. Rajender Parsad delivered three lectures on Statistics: Introduction and Concepts; Fundamentals of Design of Experiments and Design Resources Server to the participants of the training programme on Data Analysis Using SAS held at JNKVV, Jabalpur by DWM, Bhubaneshwar during January 24-29, 2011.
- Dr. Krishan Lal delivered lectures on Design Resources Server, Descriptive Statistics, Test of Significance, Correlation and Regression, Principal Component Analysis, Cluster Analysis, Repeated Measures Analysis and Design of experiments as a Guest Faculty to the participants of the training programme on Strengthening Statistical Computing for NARS using SAS (February 15-16, 2011) held at MPUA&T, Udaipur during February 14-19, 2011.
- Sh. Eldho Varghese delivered a lectures on SPSS for Multivariate Analysis under a one week refresher training programme on SPSS for ISS officers and senior officers of the states/UTs organised by Ministry of Statistics and Programme Implementation, Government of India during February 21-25, 2011.
- Dr Anil Rai Delivered lecture on Logistics Regression Modeling using SPSS/SAS of Survey Data at Computer Centre, Ministry of Statistics and Plan Implementation, New Delhi on February 24, 2011.

- Dr. Rajender Parsad delivered two lectures on Design and Analysis of Microarray Experiments and JMP Genomics: Statistics Work Flow to the participants of training programme on Crop Gene Expression Data Analysis and Structural Bioinformatics under NAIP Consortium on Establishment of National Bioinformatics Grid organized at NBPGR, New Delhi during March 01-10, 2011.

- Dr. Rajender Parsad delivered two lectures on Design Resources Server and Service Oriented Computing to the participants of the training programme on Data Analysis Using SAS held at CIRB Hisar organized by Consortium partner NDRI, Karnal during March 07-12, 2011.

- Dr. Rajender Parsad delivered 04 lectures on Statistics introduction and concepts; Fundamentals of Design of Experiments; Design Resources Server and Service Oriented Computing and Base SAS to the participants of the training programme on Statistical Data Analysis Using SAS organized by NRC AF, Jhansi in technical collaboration with NAIP Consortium on Strengthening Statistical Computing for NARS during March 14 – 18, 2011.

- Dr. Rajender Parsad delivered one lecture on Design Resources Server and Service Oriented Computing to the participants of the training programme on Data Analysis Using SAS organized by Consortium partner NDRI, Karnal during March 22-28, 2011.

- Dr Prachi Misra Sahoo delivered lecture on Spatial Statistics and its Applications in Agriculture in the 18th Winter School on Remote Sensing with special emphasis on Input use Efficiency held in the Division of Agricultural Physics, IARI, New Delhi during 15 February - 11 March, 2011.

- Sh. Wasi Alam delivered a lecture on R and its application in bioinformatics on March 12, 2011 at NBPGR, New Delhi.

- Dr. Prajneshu delivered two lectures on "Nonlinear statistical models and their applications" on March 15, 2011 at Miranda House, University of Delhi.

- Dr. V. Ramasubramian delivered lectures on Overview on Design Resources Server and Macros in SAS on March 08, 2011 at ICAR Research Complex for NEH Region, Meghalaya.

PARTICIPATION

Krishi Vigyan Mela

- Institute participated in the **Krishi Vigyan Mela** held at IARI, New Delhi during March 03-05, 2011. Maize Agridaksh, Expert System on Seed Spices and Expert System on Wheat Crop Management were demonstrated to visitors, researchers and farmers on the touch screen computers. Posters from several other research achievements such as Strengthening Statistical Computing for NARS, National Agricultural Science Museum etc., were exhibited at the stall and the visitors were given leaflets and encouraged to use the web-sites.

Conferences / workshops / seminars / symposia/ training etc

- Two days Seminar on Forward Market Commission held at IIML-Noida Campus during January 27-28, 2011.
- The 98th session of Indian Science Congress at SRM University, Chennai during January 03- 07, 2011.
- Annual Workshop of Component-IV of NAIP on February 02, 1011 at CISH Lucknow.
- 82nd Annual General Meeting of ICAR on 02 February, 2011 at NASC Complex, New Delhi
- Training-cum-Workshop on Parallel Computing and High Performance Computing at Centre for Development of Advanced Computing (C-DAC), Pune under the project National Agricultural Bioinformatics Grid on 08-09 February 2011
- 15th Conference of Commonwealth Statisticians at Vigyan Bhawan, New Delhi on February 07, 2011.

- 14th National Conference on e-governance organized by Department of Administrative Reforms and Public Grievances, Govt. of India as a Panelist in the Plenary Session-IV "ICT in Agriculture" at CIDCO, Natyagruha, Aurangabad held during February 10-11, 2011.
- Directors Conference preceded by a National Consultation on Higher Agricultural Education on February 21-24, 2011 at NASC Complex, Pusa, New Delhi.
- One day Workshop on Results-Framework Documents (RFD) for Responsibility Centers (RCs) at Vigyan Bhawan, New Delhi on February 22, 2011.
- Brainstorming workshop on Prospects of Nanotechnology in Agri-value chain at NAARM, Hyderabad on February 22, 2011.
- Training programme on Intellectual Property Rights and Technology Licensing in Agriculture held at NAARM, Hyderabad, Andhra Pradesh during March 02-11, 2011.
- Zonal Technology Management and Business Planning and Development (ZTM-BPD) North Zone-I meeting-cum-workshop-2010-11 held at IARI, New Delhi during March 17-18, 2011 and presented the IP Assets of the Institute and work done by the ITMU and ITMC of the Institute during the year 2010-11.
- Training programme on Quantifying impact of climate change on Agriculture organized at NCAP, New Delhi during 21-25 March, 2011.
- Workshop cum meeting on "E-publishing of research journals-A way forward" on March 26, 2011 at NASC Complex, New Delhi.

Meetings
- Dr. UC Sud, and Dr KK Tyagi met with Mrs Shobha Marwaha, Adviser, DES, Sh Rajeev Lochan, Adviser and Sh Sanjay, Addl Statistical Adviser at Krishi Bhawan in connection with recommendation of Prof Vaidyanathan Committee's report on January 05, 2011.
- Dr. VK Bhatia participated in the XXI ICAR Regional Committee Meeting held on January10-11, 2011 at Central Soil Salinity Research Institute, Karnal.
- Dr. VK Bhatia participated in the meeting on National Consultation on Animal Diseases, Monitoring and Surveillance on January 25, 2011 at NASC Complex, New Delhi.
- Dr. UC Sud attended the meeting of TAC on DLHS-4 on January 14, 2011 At National Documentation Centre, National Institute of Health & Family Welfare (NIHFW), Munirka, New Delhi.
- Dr. UC Sud and Dr. KK Tyagi visited the NSSO (FOD), Faridabad and met Sh. AK Srivastava, DDG and other senior officials on January18, 2011. Discussed with them about the letters received from Adviser, DES about making comments on the recommendations of Prof Vaidhyanathan Committee report.
- Dr. UC Sud visited Calicut to attend the consultative meeting on issues in statistics on spices and ginger on January 28, 2011.
- 49th Convocation Week during January 31 - February 05, 2011 at IARI, New Delhi.
- Meeting with Sub Group of the Committee on Statistics and Allied Sectors members on February 01, 2011 at IASRI, New Delhi.
- Research Advisory Committee meeting of PDFSR, Modipuram held at Modipuram on February 08, 2011.
- Meeting of the Technical Advisory Committee (TAC) at national level constituted for implementation of National Agricultural Insurance Scheme (NAIS) in the country at Krishi Bhawan, New Delhi on February 14, 2011.
- Meeting with the Chair of Research Advisory Committee under the Chairmanship of Director General, ICAR on February 28, 2011 at NASC Complex, New Delhi.
- Meeting related to the Results Framework Document (RFD) at NASC Complex, New Delhi during 11-14 March, 2011.
- Technical Advisory Committee (TAC) of modified National Agricultural Insurance Scheme (NAIS) in the country at Krishi Bhawan, New Delhi on 15 March, 2011.
- First meeting of the Working Group for revising the course content of the module "Agriculture and Rural Statistics" held under the chairmanship of Dr VK Bhatia, Director at the Institute on 25 March, 2011.

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- Meetings with group of scientists for preparing/editing notes on different topics relating to sample surveys for preparing a white paper concerning Interactive Meets with NRM Division and Animal Science Division of the Council.

Consultancy/Advisory Services Provided

- Dr. UC Sud provided guidance to the Ministry of Health & Family Welfare for pooling Annual Health Survey (AHS) data and District Level Health Survey (DLHS) data for arriving at estimate at the national level.
- Consultancy on Prioritization of Rainfed Area in the Country in collaboration with CRIDA for National Rainfed Authority, Ministry of Agriculture, New Delhi.
- A scientist from NBPGR, New Delhi was advised on the procedure of estimation of heritability when the experiment was laid out using Augmented design. For this variance components estimation procedure developed by Parsad *et al.* (2003, Project Report, IASRI) was used.

COMPUTING FACILITIES

Wide Area Network

Internet services have been provided to the users and the website of IASRI is being updated regularly. This site has been visited **715798** times since 01 April 2008 and **1080180** times since 05 September 2003.

PERSONNEL

Congratulations on your Appointment

Name	Designation	Effective Date
Smt. Yogita Gharde	Scientist	10-01-2011

Congratulations on your Promotions

Name	Promoted to	Date
Sh. Prabhu Dayal, Assistant	AAO	04-01-2011
Sh. Satya Pal Singh, T-5	T-6	01-01-2010

Wish you happy Retired Life

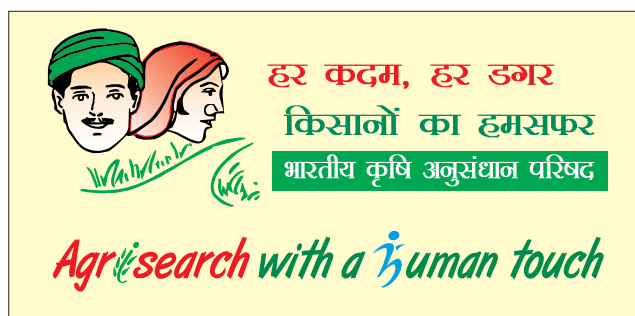| Name	Designation	Date
Sh. S.C. Mehta	Scientist(SG)	31-01-2011
Dr. V.K. Mahajan	Principal Scientist	31-03-2011
Sh. A.R. Keshava	Technical Officer (T-7-8)	31-03-2011
Smt. Shashi Gupta	Technical Officer (T-6)	31-03-2011

Transfer

Name	To	Effective Date
Sh. Nanak Chand, Stenographer	ICAR, Krishi Bhawan, New Delhi	24-02-2011

Deputation

Dr.(Smt.) P. Visakhi, Librarian (T-7-8), has been relieved from IASRI in the forenoon of 14-02-2011 to join the post of Dy. Librarian at IISER(Indian Institute of Science Education and Research, Mohali, Sector 26, Chandigarh-160019).

Saleable Technologies

- Statistical Package for Factorial Experiments (SPFE 1.0)
- Statistical Package for Agricultural Research (SPAR 2.0)
- Statistical Package for Augmented Designs (SPAD)
- Statistical Package for Block Designs (SPBD 1.0)
- Statistical Package for Animal Breeding (SPAB 2.0)
- Software for Survey Data Analysis (SSDA 1.0)

हर कदम, हर डगर
किसानों का हमसफर
भारतीय कृषि अनुसंधान परिषद

Agri search with a human touch