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- Papers Presented/Lectures Delivered
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- Panorama of Activities
- Participation
- Awards and Recognitions
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From the Director's desk ...

This Newsletter brings to you the key research achievements, awards and recognitions received, training programmes conducted, workshops and conferences organized/ attended, advisory services provided and significant publications of ICAR-IASRI during the period under report.

Dr. Gurdev Singh Khush, World Food Laureate and popularly known as Rice man visited the Institute and lauded the contributions made by the Institute. During the 61st Convocation of PG School, IARI, 29 students (14 M.Sc. and 15 Ph.D.) received their respective degrees in Agricultural Statistics, Computer Application and Bioinformatics. Through 7 Training programmes on specialized topics including a CAFT training and two short courses sponsored by Education Division, ICAR and 01 Hindi Workshop conducted by the Institute, a total of 198 participants were trained. Two guest seminars were also delivered by Professor Balgobin Nandram Worcester Polytechnic Institute, USA on the topic Overcoming Challenges Associated with Bayesian Small Area Estimation of Early Planted Acres and Dr. Subrata Kundu, George Washington University, Washington D.C., USA on the topic The Statistical Face of a Region under Monsoon Rainfall using Shape Analysis.

International Conference on Blended Learning Ecosystem for Higher Education in Agriculture was organized in offline/online mode. The conference was jointly hosted by ICAR and the World Bank in offline/online mode. The Institute celebrated Republic Day, National Science Day and International Women's Day. The Institute initiated 03 new projects and received 01 copyright. A total of 45 Research Papers {02 research papers in 10+ Thompson Reuter Impact Factor Journals (01 only by the Scientists of the Institute and 01 as co-authors with other organization)}, 01 Book Chapter, 07 Webservers/Databases and 03 R Packages were published. Efforts of the Institute towards adapting itself to Artificial Intelligence (AI) having useful applications in the field of agriculture such as detection of crop pests and incidence of diseases are being recognized and Honourable Ms. Raksha Nikhil Khadse, Member of Parliament, Raver (Lok Sabha), Maharashtra visited the Institute and had discussion on application of Artificial Intelligence for solving issues related to Plant Protection and Production Technology of Banana for Raver Farmers.

A computational tool for abiotic stress-specific miRNAs prediction in plants named as ASmiR has been developed which is applicable to cereals, pulses, oilseed, vegetables, fruits and commercial crops and will contribute to the development of abiotic stress resistance improved crop varieties. Also developed Deep learning based Abiotic stress Protein sequence classification and identification tool in cereals (DeepAProt) and Webserver for breed identification using microsatellite DNA markers. In the field of design of experiments, obtained Two-Part Structurally Incomplete Designs useful in selecting the best possible components in Integrated Farming System (IFS) and also Affine Resolvable Partially Balanced Incomplete Block Designs in two replications. Data and information available on KVK Portal has been Exchanged with API with other Portals such as DARPAN and KISAN SUVIDHA App. Financial Assistance Management System for Conference and Journals, (FAMSCJ), online workflow based system for managing for financial grants given by ICAR to scientific societies developed in collaboration with Technical Coordination Unit of ICAR. The System was launched by Dr. Himanshu Pathak, Honorable Secretary DARE and Director General ICAR on January 01, 2023. Academic Management System for Jawaharlal Nehru Krishi Vishwa Vidyalaya (JNKVV) was also launched by DDG (Agricultural Education), ICAR and Vice-Chancellor, JNKVV, Jabalpur. The contribution of the Institute in diagnosis of lung cancer through patient breathing was published as an article in the Hindustan Times.

The scientists of the Institute have brought recognitions by way of serving as Expert Members in various high level committees, presenting research work in prestigious conferences/ workshops.

I earnestly hope that the contents of this Newsletter would be useful and informative to you all. Any constructive comments for better presentation of this newsletter are most welcome.



(Rajender Parsad)

RESEARCH ACHIEVEMENTS

ASmiR: A computational tool for abiotic stress-specific miRNAs prediction in plants

Sustainable food production is necessary to meet the demands of the ever-increasing human population. Conversely, crop plants are constantly exposed to adverse environmental perturbations that are predicted to result in a 70% yield loss in important agricultural crops. Abiotic stresses, such as cold, drought, heat, salt, and nutrient deficiencies, have been a major factor in limiting crop yield and productivity. These abiotic stresses have become a major challenge in recent years due to their pervasive nature and shocking impact on plant growth, development and quality. MicroRNAs (miRNAs) play a significant role in plant response to different abiotic stresses. Thus, identification of specific abiotic stress-responsive miRNAs holds immense importance in crop breeding programmes to develop cultivars resistant to abiotic stresses. The Institute developed the first machine learning-based computational model “ASmiR” for prediction of miRNAs associated with four specific abiotic stresses, such as cold, drought, heat and salt covering the datasets from 114 different plant species including cereals, pulses, oilseed, vegetables, fruits and commercial crops. These models were built based on machine learning algorithm, where *K*-mer compositional feature of miRNAs were used as input in learning models. The performance of the ASmiR and ASLncR was validated using both cross-validation approach and independent test set. The highest cross-validated prediction accuracies in terms of area under precision-recall curve were found to be 90.15, 90.09, 87.71, and 89.25% for cold, drought, heat, and salt respectively. Overall prediction accuracies for the independent dataset were respectively observed 84.57, 80.62, 80.38, and 82.78% for the abiotic stresses. For implementation of developed method with ease, online prediction servers ASmiR has also been developed which is freely accessible at <https://iasri-sg.icar.gov.in/asmir/>

“ASmiR” is applicable to cereals, pulses, oilseed, vegetables, fruits and commercial crops and will contribute to the development of abiotic stress resistance improved crop varieties and sustainable agricultural practices, thereby addressing global food security and agricultural sustainability challenges.

DeepAProt: Deep learning based Abiotic stress Protein sequence classification and identification tool in cereals

The impact of climate change has been alarming for the crop growth. The extreme weather conditions can stress the crops and reduce the yield of major crops belonging to Poaceae family to that sustains 50% of the world's food calorie and 20% of protein intake. Computational approaches, such as artificial intelligence-based techniques have become the forefront of prediction-based data interpretation and plant stress responses. A novel activation function, namely, Gaussian Error Linear Unit with Sigmoid (SIELU) has been proposed and implemented in the development of a Deep Learning (DL) model along with other hyper parameters for classification of unknown abiotic stress protein sequences from crops of Poaceae family. The data pertaining to four different abiotic stress (namely cold, drought, heat and salinity) responsive proteins of the crops belonging to poaceae family were retrieved from public domain. A comparative analysis was carried out between Support Vector Machine (SVM), Random Forest (RF), Long short-term memory (LSTM) with Gaussian error Linear Unit (GeLU), and SIELU activation functions. It has been observed that LSTM with SIELU activation function outperformed as compared to other competitive models used in this study. It was observed that efficiency of the DL models with our proposed novel SIELU activation function outperformed the models as compared to GeLU activation function, SVM and RF with 95.11%, 80.78%, 94.97%, and 81.69% accuracy for cold, drought, heat and salinity, respectively. Hence, LSTM with SIELU models was implemented in the form of web server DeepAProt (<http://login1.cabgrid.res.in:5500/>) along with its mobile app for the classification of unknown protein sequences into different abiotic stresses of crops from the Poaceae family.

This server/App will provide researchers a convenient tool, which is rapid and economical in identification of proteins for abiotic stress management in crops of the Poaceae family, in endeavour of higher production for food security and combating hunger, ensuring UN SDG goal 2.0.

Two-Part Structurally Incomplete Designs

Two-part designs are helpful in selecting the best possible components in Integrated Farming System (IFS). They involve two groups of treatment arranged in incomplete blocks with respect to both groups, and the concurrence of treatment pairs within and between groups is constant. The fusion of two in-complete block designs in a systematic manner can yield two-part designs. Further, for situations where certain experimental units are not available, two-part structurally incomplete designs are obtained.

Affine Resolvable Partially Balanced Incomplete Block Designs in Two Replications

For situations in multi-site varietal trials where the experimenters demand incomplete blocks with unequal sizes, minimum number of replications, or both, new series of incomplete block designs have been presented. The proposed designs are higher associate partially balanced incomplete block designs in two replications having flexible block sizes. These designs are affine resolvable and are optimal in the competing class of resolvable incomplete block designs.

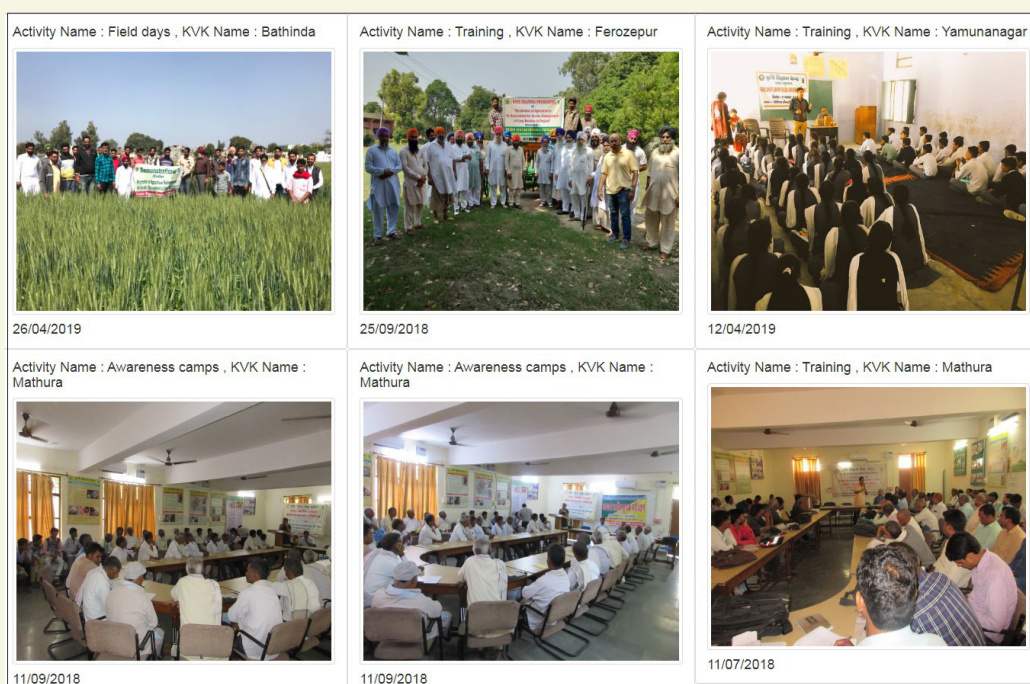
KVK Portal: e-Governance of Activities and Data Exchange with API with other Portals

A centralized knowledge management portal (<http://kvk.icar.gov.in>) and a Mobile App have been developed under the Extramural Research Project “**Knowledge Management System for Agriculture Extension Services in Indian NARES**” at ICAR-IASRI in collaboration with Agriculture Extension Division, ICAR. All KVK’s and ATARI’s are part of this portal. KVK Portal is being used for e-governance and data exchange with other Government organizations like Jal Sakti Abhiyan, Krishi Kalyan Abhiyan (KKA)-I, II, III, Darpan Dashboard, Kisan Suvidha and Open Data Platform. Portal is used for e-governance of activities in three different ways.

1. Event category is added in the portal. The programs organized are added under the event category and information is entered by KVK’s and a special separate dashboard is created by the system showcasing event details along with Image Gallery. For example, Crop Residue Management activity is depicted in KVK Portal with dashboard and Image Gallery (Figures 1a, 1b).
2. For some of the schemes like Garib Kalyan Rojgar Abhiyaan (GKRA), KKA-I, II; data was entered by KVK’s in

S. No.	Activity	No. of activities Cumulative (till 01-04-2022)	No. of farmer participated/identified Cumulative (till 01-04-2022)
1	Training	330	12152
2	Demonstrations	5495	19114
3	Awareness camps	2055	53240
4	Kisan melas	83	24691
5	Publicity @ literature distribution/learning poster at prominent places/Vidya Sahitya Darshan/Participation in radio talk/Participation in TV talk/Participation in discussion	169	34277
6	Students mobilization	1401	45271
7	Exposure visit	254	6717
8	Field days	395	4659
9	Home visits	101	1152
10	Other	124	14396
	Total	10210	73071

Figure 1a: Crop Residue Management Activity Dashboard



1. Figure 1b: Crop Residue Management Activity Image Gallery

the portal and dashboard was developed for monitoring the data by various ministries and stakeholders involved in the process. MIS report was developed to view the data at different levels. For example, Data was uploaded on weekly basis to GKRA official Portal (<http://gkra.nic.in>) (Figure 2a). Figure 2b shows dashboard for KKA-II. Figure 2c shows dashboard for KKA-III.

- On the other hand, for some of the schemes data was entered in KVK Portal and using API's it is exchanged with other Govt. Portals.

Krishi Vigyan Kendra Knowledge Network कृषि विज्ञान केंद्र ज्ञान तंत्र							
State Wise Garib Kalyan Rojgar Abhiyan Report							
Click on particular State to see District wise report							
As on 01/6/2022							
Key Parameters >>		Training Conducted(In No.)		Person Skilled(In No.)		Total Expenditure(In Rs. Crore)	
SL. No	State Name	Target	Achievement	Target	Achievement	Target	Achievement
	Total	1856	1917	64960	67930	3.8048	3.883650
1	BIHAR	512	498	17920	17941	1.0496	1.048850
2	JHARKHAND	48	46	1680	1610	0.0984	0.094700
3	ODISHA	64	64	2240	2240	0.1312	0.131650
4	MADHYA PRADESH	384	384	13440	13474	0.7872	0.792200
5	RAJASTHAN	352	357	12320	12543	0.7216	0.736300
6	UTTAR PRADESH	496	568	17360	20122	1.0168	1.179950
	Total	1856	1917	64960	67930	3.8048	3.883650

Figure 2a: GKRA MIS Report

KRISHI KALYAN ABHIYAN-II
Consolidated Performance

Total Districts : 117
Total Villages : 2924

Distribution of Soil Health Cards Target : 7,40,467 Achievement : 7,05,787 Farmers Benefitted : 6,61,911	Distribution of Mini-kits of pulses and oilseeds Target : 1,79,881 Achievement : 1,79,881 Farmers Benefitted : 1,82,956	Distribution of Horticulture/Agro Forestry/Bamboo plant @ 100 farmers per villages @ 5 plants per farmer(location appropriate) Target : 5,31,966 Achievement : 5,60,571 Farmers Benefitted : 1,27,898
Making NADEP Pits/Vermicompost in each village Target : 58,480 Achievement : 15,763 Farmers Benefitted : 16,655	100% coverage of bovine vaccination(FMD) in each village Target : 100% Saturation Achievement : 14,20,642 Farmers Benefitted : 8,31,860	100% coverage of Sheep and Goat for eradication of PPR Target : 100% Saturation Achievement : 9,33,487 Farmers Benefitted : 4,75,502
Artificial insemination saturation Target : 2,92,400 Achievement : 1,25,780 Farmers Benefitted : 1,50,590	Training programmes(3 trainings per villages minimum 50 farmers per training) Target : 8,772 Achievement : 9,098 Farmers Benefitted : 4,62,833	Distributions of 10 to 20 agriculture implements per village Target : 29,240 Achievement : 17,830 Farmers Benefitted : 30,785
Demonstrations of integrated cropping practice Target : 1 per district Achievement : 2,633 Farmers Benefitted : 10,065	Demonstration programmes on Micro irrigation Target : 1 per district Achievement : 2,390 Farmers Benefitted : 9,689	Technology Demonstration on farmer field Target : Not Available Achievement : 250 Farmers Benefitted : 2,075
Organizing awareness campaign for PMFBY Target : 2,924 Achievement : 11,565 Farmers Benefitted : 97,193	Development/Upgradation of Gramin Haats in Convergence with MGNREGA Target : 1 per district Achievement : 183 Farmers Benefitted : 22,059	

[District Wise Performance Report](#)
[Other Reports](#)

Figure 2b: KKA-II Dashboard

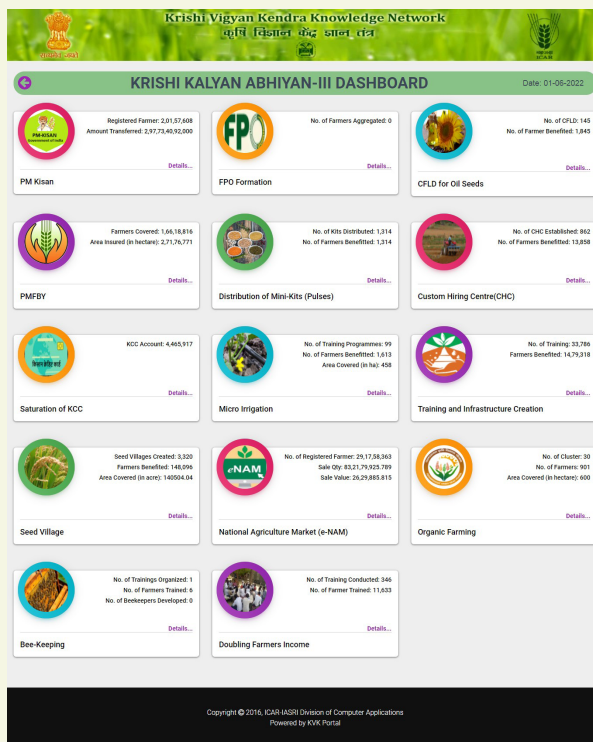


Figure 2c: KKA III Dashboard

KVK portal is linked to ICAR DARPAN Dashboard (<https://icar.dashboard.nic.in/>) through Web API, to display the KVK KPIs data like Mobile agro advisories provided to farmers, Farmers training and Agriculture extension activities (Figure 3a). Functionality has been developed in the KVK portal, to reflect KVK KPIs Data in DARPAN Dashboard by pushing the KPIs data into the DARPAN Dashboard by consuming the WEB API provided by NIC team. Data is pushed automatically on monthly basis.

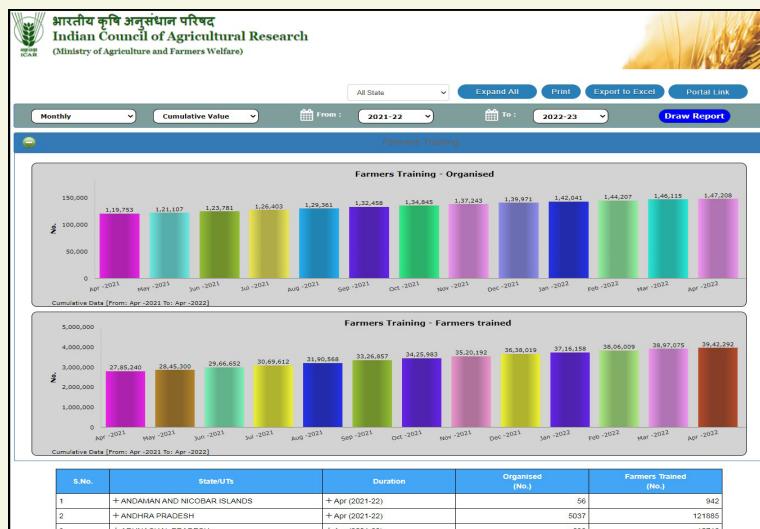


Figure 3a: Displaying the KVK KPIs data for farmer training provided to farmer by kvks on DARPAN Dashboard

Data from KVK Portal has been integrated with Kisan Suvidha Portal/APP developed by National Informatic Center (NIC) (<https://kisansuvidha.gov.in/>). Different API's have been developed to share district level data. API's have been developed to share the data for Open Government Data (OGD) platform.

- Packages & Practices Agro Advisory Web API, to provides the path of the agro advisory for a particular state in English or Local language in the json format by passing the 'state code' and 'language type' parameters (Figure 3b).

- KVK details API, to provide the kvk(s) details.
- Facilities details API, to provide the facilities available in the kvk(s) under the particular district (Figure 3c).
- KVK KPIs Web API, to provides the state and district wise cumulative data of KVK's, KPIs. (No. of farmer and No. of farmer's training, No. of mobile agro advisories issued to farmers, No. of extension activities organized by KVK)

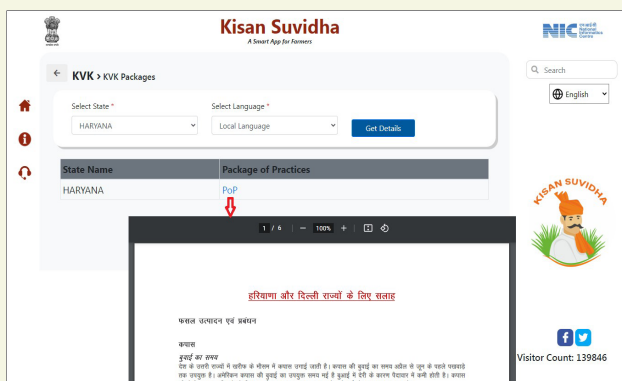


Figure 3b: Displaying the packages and practices details on Kisan Suvidha Portal

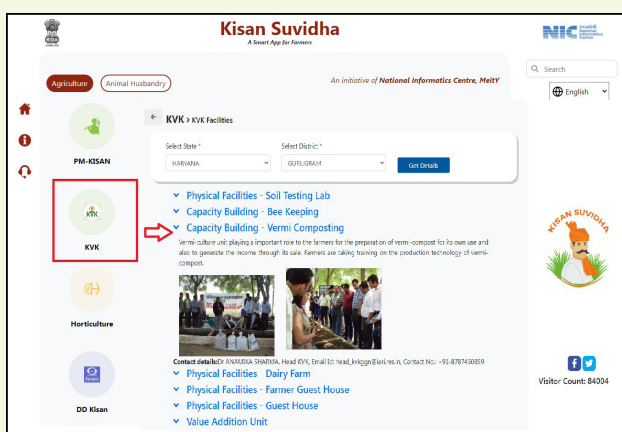


Figure 3c: Displaying the KVK facilities details on Kisan Suvidha Portal

Financial Assistance Management System for Conference and Journals

- Financial Assistance Management System for Conferences & Journals (FAMSCJ) is an online workflow based system for managing for financial grants given by ICAR to scientific societies for: (a) organizing National / International Conferences/ Seminars /Symposia; (b) publication of Scientific Journals. Online application, approval process and tracking of application's status by ICAR officials. The FAMSCJ will make the financial assistance approval process more efficient and transparent. The Key-Features of FAMSCJ are: (i) online financial assistance application (proposal) process, (ii) online application assessment process; (iii) online tracking of application's current status; (iv) automatic sanction letter generation process; (v) downloading of sanction letter by concerned Society and (vi) online submission of report by concerned Society. FAMSCJ has been developed in collaboration with Technical Coordination Unit of ICAR. The System was launched by Dr. Himanshu Pathak, Honorable Secretary DARE and Director General ICAR on January 01, 2023 at ICAR- IARI sports ground.



R-Packages-Developed: Three (03)

- **TSSVM**: Time Series Forecasting using SVM Model. Available at <https://cran.r-project.org/web/packages/TSSVM/index.html>
- **ABSURVTDC**: Survival Analysis using Time Dependent Covariate. Available at <https://cran.r-project.org/web/packages/ABSURVTDC/index.html>
- **PBtDesigns**: Partially Balanced t-Designs (PBtDesigns). Available at <https://cran.r-project.org/package=PBtDesigns>

Biological-database/software-tool/Prediction-Server/Model: Seven (07)

- **Microsatellite based Horse Breed Prediction**: Webserver for breed identification using microsatellite DNA markers. Accessible at <http://backlin.cabgrid.res.in/horse/>
- **Equine CNVs database (EqCNVdb)**: Web genomic resource created to provide data on identified CNVs in six equine breeds. Accessible at <http://backlin.cabgrid.res.in/eqcnvdb/>
- **Bp2SSRdb**: Black pepper polymorphic SSR database. Accessible at <http://backlin.cabgrid.res.in/bp2ssrdb/index.php>
- **BpVarDB**: Database for polymorphic variants (SNP/InDels) of black pepper extracted among 39 genotypes of black pepper found across India. Accessible at <http://backlin.cabgrid.res.in/bp2ssrdb/index.php>
- **AVR-AgDb**: A web resources for Antiviral Agricultural crop produce for post COVID-19 world. Accessible at <http://backlin.cabgrid.res.in/avragdb/>
- **DeepAProt**: Web server along with its mobile app for the classification of unknown protein sequences into different abiotic stresses of crops from the Poaceae family. Accessible at <http://login1.cabgrid.res.in:5500/>
- **ASmiR**: An online prediction server for miRNAs associated with abiotic stresses has been developed at available at <https://iasri-sg.icar.gov.in/asmir/>

PANORAMA OF ACTIVITIES

Republic Day Celebrations

- Institute celebrated 73rd Republic Day on January 26, 2023 in which all staff and students of the Institute participated. (Rajender Parsad)



National Science Day

- Celebrated National Science Day on February 28, 2023 in which students made presentation on relevance of Global Science for Global Well Being and Role of Statistical Sciences. (Rajender Parsad)



International Women’s Day 2023

- On the occasion of International Women’s Day 2023, a painting competition was organized on the theme Digit All: Innovation and Technology for Gender Equality. Posters of Women Force (Scientists, Technical and administrative staff) (n-1)th, nth and (n+1)th generation of ICAR-IASRI Family and Students of ICAR-IASRI family were shared on Social Media. Following are some glimpse of celebrations:



(n-1)th, nth and (n+1)th generations



Students' Gallery

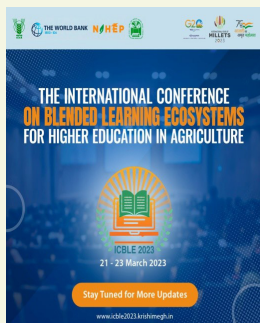


Students' Gallery



*"There is no gate, no lock,
no bolt that you can set
upon the freedom of my
mind" - Virginia Woolf*

ICBLE (International Conference on Blended Learning Ecosystem for Higher Education in Agriculture) 2023



ICAR-IASRI and PIU NAHEP organized the **International Conference on Blended Learning Ecosystem for Higher Education in Agriculture** during March 21- 23, 2023. The conference was jointly hosted by ICAR and the World Bank in hybrid mode. The conference and exhibition was inaugurated by the Hon'ble Minister of Agriculture and Farmers' Welfare Shri Narendra Singh Tomar. In his Inaugural speech, Shri Tomar ji applauded ICAR and ICAR-IASRI's efforts to organize the first-of-its-kind conference on the blended learning ecosystem for higher education in agriculture. During the inaugural function RAES, the blended learning platform was released along with 75-lecture series, the latest Model Act amendment for Higher Agricultural Educational Institutions in India and new training modules for technical and administration staff.

In this conference 3412 (2505 male and 907 female) registered participants who participated in person or through hybrid platforms. There were 222 personnel nominated form different State Agricultural Universities and Delhi based Institutions. 2761 participants from across the globe and PAN-India participated in the conference through online mode. There were 24 international participants, who joined in online/offline from 9 countries viz. Bangladesh, Malawi, Australia, Austria, USA, Netherlands, UK, Philippines, and Canada (from five continents viz. Europe, Asia, Australia, Africa, and North America).



Day 1: There was one plenary sessions and one panel discussion. The plenary session was dedicated to the discussion on *Modernization of Agricultural Education*. In the panel discussion, *the idea of exploring effective strategies of blended learning for higher education in Agriculture* was discussed.

Day 2: There were two plenary sessions and two panel discussions. The first plenary session was on the topic of *Blended Learning Through the Lens of Emerging Technologies*. The panel discussion was on the topic of *Making Agricultural Education Future Ready with 3 Es: Emerging Technologies, Employability and Entrepreneurship*. This was followed by another panel discussion on the topic *Accelerating Digital Development through Effective Capacity Building and Change Management*. The last session for the day was another plenary session on the topic *Models and Studies on Blended Learning Ecosystem*.

Day 3: Two plenary sessions, one panel discussion and valedictory session were organized along with the release of Delhi Declaration. The plenary session was on the topic *Sustainable Digital Transformation in Education System*. The panel discussion on *Digital Transformation in Education Sector* saw an interesting exchange of ideas among various speakers. In the fifth and last Plenary session, discussions were held on *Blended Learning Ecosystem and Community Outreach*.

The valedictory session was graced by the presence of Dr. Auguste Tano Kouame, Country Director of the World Bank and Chaired by Dr. R.B. Singh. Dr. Trilochan Mohapatra, Fomer Secretary, DARE and Director General, ICAR was the Guest of Honour. At the end, the Delhi Declaration about the blended learning platform for higher education in agriculture, was released.



Research Achievements in Print Media

The contribution of the Institute in diagnosis of lungs cancer through patient breathing was published as an article in the Hindustan Times on February 06, 2023.

हिन्दुस्तान

मरीज की सांस से फेफड़ों के कैंसर का पता लगाया

येनत रजौीर

11 नई दिल्ली। सोचिए फेफड़ों के कैंसर का किसे डिवाइसर में फूंक मारकर पता लगाया जा सके तो कितना बेहतर होगा। दिल्ली के एसा रोड स्थित भारतीय कृषि सांख्यिकी अनुसंधान संस्था और अमेरिका के लुइसियाना विश्वविद्यालय के वैज्ञानिकों ने परीक्षा द्वारा छोड़ी जाने वाली सांस से फेफड़ों के कैंसर का पता लगाने में कामयाबी हासिल की है। इस अध्ययन के लिए भारत सरकार और अमेरिका के लुइसियाना विश्वविद्यालय ने अनुदान दिया है। डॉक्टर समरेंद्र दास इसके अध्ययनकर्ताओं में से एक हैं और लुइसियाना विश्वविद्यालय के अस्पताल में मर्ता मरीजों पर उन्होंने यह अध्ययन किया है। दिल्ली के भारतीय कृषि सांख्यिकी अनुसंधान संस्था और अमेरिका के लुइसियाना विश्वविद्यालय के वैज्ञानिकों ने लुइसियाना अस्पताल से 414 लोगों को अपने अध्ययन में शामिल किया। इनमें 156 मरीज फेफड़ों के कैंसर, 193 मरीज बिना कैंसर वाला ट्यूमर और 65 मरीज स्वस्थ थे। शोधकर्ताओं ने इन लोगों

यह होगा फायदा

अभी कैंसर का पता लगाने के लिए रेडियोलॉजिकल जांच कर बायोप्सी आदि की जाती है। इस जांच में समय भी लगता है और मरीज की सजरी भी करनी पड़ती है। द्वारा छोड़ी गई सांस के नमूनों से फेफड़ों के कैंसर का पता लगाने में कामयाबी हासिल की। अध्ययनकर्ता डॉक्टर समरेंद्र दास ने बताया कि इन लोगों को छोड़ी गई सांस को एकत्र किया। फिर उसमें मौजूद वाष्पशील कार्बनिक यौगिकों को अलग कर अध्ययन किया। मरीजों का पता लगाने के लिए सिर्फ पांच तरह के वाष्पशील कार्बनिक यौगिक के नतीजे जानने थे।

जांच के लिए विशेष मशीन बनाई

नई दिल्ली, प्रमुख संवाददाता। एएस आईआईटी दिल्ली के शोधकर्ताओं ने मुंह के कैंसर की जांच के लिए विशेष मशीन बनाई है। इस मशीन को मदर से मरीजों का प्लोरोसिस टेस्ट किया जा सकता है। यह टेस्ट बिना चीरा लगाए मुंह के कैंसर की मरीजों की पहचान कर सकता है। एएस के संचिकल ऑनकोलॉजी विभाग के प्रमुख डॉ. एएस वी एस देव ने बताया कि कैंसर की पहचान के लिए पहले वाले टेस्ट काफी महंगे हैं, जो देश की बड़ी आबादी में संभव नहीं। एएस आईआईटी के साथ मिलकर कई विकल्प विकसित कर रहा है। उन्होंने कहा कि ब्लड टेस्ट करके कैंसर को पकड़ सकते हैं। थूक की जांच कर ओरल कैंसर को पकड़ सकते हैं। इसके अलावा ओरल कैंसर की जांच के लिए एक माध्यम को विकसित किया जा रहा है जिसमें मुंह में अल्ट्रासाउंड फिब्रोस्कोप डालकर जांच की जा सकती है। यदि कैंसर बन रहा है तो यह जल्द पता सकता है। अभी पहले चरण में 40 मरीजों पर यह प्रयोग किया गया है।

Launch of Academic Management System for Jawaharlal Nehru Krishi Vishwa Vidyalaya (JNKVV), Jabalpur

- Academic Management System developed under NAHEP was launched on February 01, 2023 at JNKVV Jabalpur jointly by Dr. R. C. Agrawal, DDG Education & ND NAHEP and Vice Chancellor, Dr. P.K. Mishra. Dr. Rajender Parsad, Director, ICAR-IASRI and Dr. Sudeep, Principal Investigator NAHEP Component-2 were also present in online mode.



Dignitaries Visit

- Honourable Ms. Raksha Nikhil Khadse, Member of Parliament, Raver (Lok Sabha), Maharashtra visited the Institute on February 07, 2023. She had a discussion on application of Artificial Intelligence for solving issues

related to Plant Protection and Production Technology of Banana for Raver Farmers. She also visited ICAR Data Center and ASHOKA.



- Dr. Gurdev Singh Khush, World Food Laureate** popularly known as Rice Man who has developed 300+ rice varieties visited the Institute on March 10, 2023. During his visit, he interacted with the faculty, staff and students of the Institute and planted a tree sapling of Chandan (*Santalum Album*). In his address, he appreciated the contributions of the Institute in several areas of statistical sciences. In the Institute Visitor Book, he wrote, *“I am delighted to visit the very famous Institute and feel fortunate that got the opportunity to visit for the first time. The Institute has very important mandate to help ICAR and the country in numerous ways. Besides selecting and training younger generation in India as well as from other countries. Very best wishes for the continued good work.”* He also visited National Agricultural Science Museum.



Participation in Zonal Sports Meet

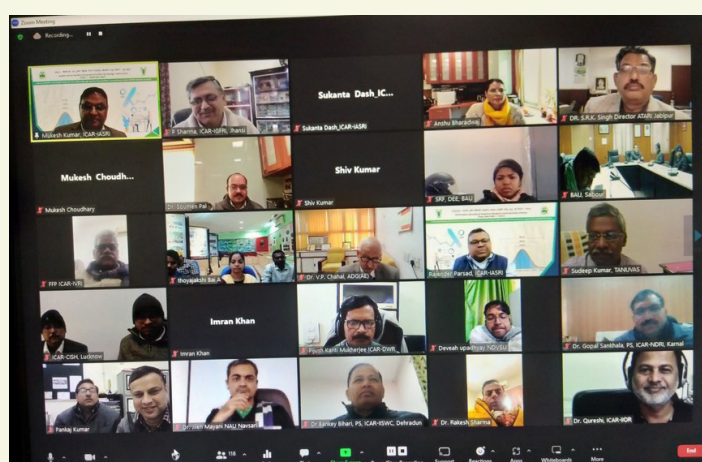
Institute participated in the Central Zonal Sport Meet 2022 organized during January 03-06, 2023 at ICAR-Indian Institute of Soybean Research, Indore (M.P.). The Institute won Table Tennis and Chess (Men and Women). In Kabbadi and Volleyball, the Institute is runners up and in Javelin throw won the third prize.



WORKSHIPS/WEBINARS/MEETINGS ETC. ORGANIZED

Workshops/Webinars

- One-Day Virtual Workshop on Farmer FIRST Programme (FFP Portal and Mobile App) was organized on January 12, 2023 at ICAR-IASRI in which 130+ personnel participated. The demonstrations were made on FFP Portal and Mobile App by Dr. Mukesh Kumar, Dr. Anshu Bharadwaj and Dr. Soumen Pal. Dr. V.P. Chahal, ADG (Agricultural Extension) in his address appreciated the efforts made by ICAR-IASRI FFP team and appealed all FFP Centres to update timely information in the portal for its enrichment. Dr. Rajender Parsad, Director, ICAR-IASRI also addressed the participants and provided his valuable suggestions for betterment of the portal as well as the Mobile App. He emphasized that efforts should be made to synchronize the information with KRISHI Portal. Dr. S.R.K. Singh, Director, ICAR-ATARI, Jabalpur and Dr. P.P. Rohilla, Nodal Officer FFP, ICAR-ATARI, Jodhpur also emphasized on timely information uploading in the portal for the benefits of stakeholders.



Meetings

- Meeting of committee for Modernizing and Strengthening of National Agricultural Science Museum on January 04, 2023 and January 13, 2023. (Rajender Parsad)
- Meeting of committee constituted to review Standard operating Procedure (SoP) for monitoring quality of foodgrains stocks procured under Decentralized Procurement (DCP) Scheme by Ministry of Consumer Affairs, Food and Public Distribution on January 20, 2023. (Rajender Parsad)

- Meeting for the feedback, improvement, enrichment and resolving the issues of KVKs in KISAN SARATHI on January 13 and 27, 2023 and on February 10 and 24, 2023. (Sanjeev Kumar)

Seminars Delivered

A total of 32 seminars on different areas of Agricultural Statistics, Computer Application and Bioinformatics which include presentations on new project proposals and salient findings of the completed research projects, Course/ Thesis/ ORW Seminars of students of M.Sc. and Ph.D. disciplines of Agricultural Statistics, Computer Application and Bioinformatics. Following two guest seminars were also organized during this period: (i) Professor Balgobin Nandram, Department of Mathematical Sciences, Worcester Polytechnic Institute, USA on the topic **Overcoming Challenges Associated with Bayesian Small Area Estimation of Early Planted Acres** and (ii) Dr. Subrata Kundu, Professor, Department of Statistics, George Washington University, Washington D.C., USA on the topic **The Statistical Face of a Region Under Monsoon Rainfall Using Shape Analysis**. The category-wise break-up is given below.

Category	Type of Seminar	Number
Scientist	Project Completion	8
	New Project Proposal	3
	Foreign Visit	
	General	
Student	Course	13
	ORW	2
	Thesis	4
Guest Seminar		2
Total		32

PUBLICATIONS

Research Papers

- Ahmed B, Haque MA, Iquebal M.A, Jaiswal S, Angadi UB, Kumar D and Rai A (2023). DeepAProt: Deep learning based abiotic stress protein sequence classification and identification tool in cereals. *Frontiers in Plant Science*, **13**. <https://www.frontiersin.org/articles/10.3389/fpls.2022.1008756/full>
- Datta A, Jaggi S, Varghese C, Varghese E, Harun Mohd and Bhowmik A (2022). Efficient row-column designs with multiple units per cell balanced for special effects. *Journal of Indian Society of Agricultural Statistics*, **76(3)**, 131–140.
- Bharti, Das P, Banerjee R, Ahmad T, Devi S and Verma G (2023). Machine- learning based apple yield prediction using morphological characters. *Horticulturae*, **9(4)**, 436. <https://doi.org/10.3390/horticulturae9040436>
- Borgohain A, Sarmah M, Gogoi BB, Konwar K, Handique JG, Paul RK, Yeasin M, Pandey V, Yadav R, Malakar H, Saikia J, Deka D, Rahman FH, Panja S, Khare P and Karak T (2023). Can tea pruning litter biochar be a friend or foe for tea (*Camellia sinensis* L.) plants' growth and growth regulators?: Feasible or fumes of fancy. *Industrial Crops and Products*, **195**, 116394. <https://doi.org/10.1016/j.indcrop.2023.116394>
- Brar JS, Das P, Adhikary T and Khehra S (2023). Energy assessing and optimizing energy efficiency of pear orchards in North-Western India. *Scientist*, **3(3)**, 374-352. <https://doi.org/10.5281/zenodo.7755087>
- Chhetri S, Alam M, Hasan MA and Lama A (2022). The efficacy of varying length of cladode cutting and IBA concentration on root and shoot growth in dragon fruit (*Hylocereus costaricensis* [F.A.C. Weber] Britton and Rose.) cv. Royal Moroccan Red. *Journal of Crop and Weed*, **18(3)**, 190-194.
- Chiru TDG, Sharma N, Padaria RN, Ahmad N, Punitha P and Ramasubramanian V (2022). Farmers' preferences for animal husbandry advisory services of public and private extension service organizations in Meghalaya.

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10. Das J, Kumar S, Mihra DC, Chaturvedi KK, Paul RK and Kairi A (2023). Machine learning in the estimation of CRISPR-Cas9 cleavage sites for plant system. *Frontiers in Genetics*, section Plant Genomics. **13**, 1085332. <https://doi.org/10.3389/fgene.2022.1085332>
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14. Garhwal R, Bhardwaj A, Sangwan K, Mehra R, Pal Y, Nayan V, Iquebal MA, Jaiswal S and Kumar H (2022). Milk from Halari donkey breed: nutritional analysis, vitamins, minerals, and amino acids profiling. *Foods*, **12**(4), 853. <https://www.mdpi.com/2304-8158/12/4/853>
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23. Khan MA, Rai A, Mishra DC, Budhlakoti N, Satpathy S and Majumdar SG (2023). Comparative study of multi-trait genomic and phenotypic selection indexes for selection of superior genotypes. *Indian journal of genetics and plant breeding*, **83**(01), 88-94.

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Book Chapters

- Dheeraj Akshay and Chand Satish (2022). Using Deep Learning Models for Crop and Weed Classification at Early Stage, *Advances in Intelligent Systems and Computing*. In: *Sentiment Analysis and Deep Learning*, Eds. Subarna Shakya, Ke-Lin Du, Klimis Ntalianis, Proceedings of ICSADL 2022, pp 931-942, Springer, Singapore.

Popular Articles:

- RC Agrawal, Rajender Parsad, Anuradha Agarwal, Alka Arora, Sudeep Marwah, Ajit, Ramasubramanian V, Anshu Bharadwaj, Shashi Dahiya, SN Islam, Soumen Pal, Sanchita Naha, Madhu, Samarath Godara (2023). Pamphlet on Blended Learning platform (Empowering Agricultural Higher Education Through Next-Generation Learning Solutions). ICAR-IASRI, New Delhi
- RC Agrawal, Rajender Parsad, Bekzod Shamsiev, Anuradha Agrawal, Sudeep Marwaha, Alka Arora, Anshu Bharadwaj, Shashi Dahiya, Ramasubramanian V, Sanchita Naha and Nikita (2023). Souvenir-International Conference on Blended Learning Ecosystem for Higher Education in Agriculture (ICBLE 2023). ICAR-Indian Agricultural Statistics Research Institute (ICAR-IASRI) and Project Implementation Unit, National Agricultural Higher Education Project (NAHEP), ICAR, New Delhi, India.

PAPERS PRESENTED/LECTURES DELIVERED

Paper presented /Invited talk delivered in Conferences

- International conference on **Statistics, Probability, Data Science and Related Areas** (ICSPDS-2023) organized in conjunction with XXXII Annual convention of Indian Society for Probability and Statistics (ISPS) & CUSAT, Cochin during January 04-06, 2023
 - R.K. Paul. Integration of stochastic, machine learning and wavelet based models. (Invited Talk)
 - Vinayaka*, Rajender Parsad and B.N. Mandal Partially balanced nested block designs for comparing test treatments with more than one control.
- VII Biennial workshop of **AICRP on Integrated Farming Systems** organized at Mahatma Phule Krishi Vidyapeeth, Rahuri (Maharashtra) during January 18-21, 2023
 - SK Sarkar*, S Dash, and Mohd Harun. Planning, designing and analysis of experiments planned ON STATION under AICRP on IFS.

- National Conference on **Agro-Ecology based Agri-Food Transformation Systems**, organized at ICAR-Indian Institute of Farming Systems Research, Modipuram, Meerut, India during January 27-28, 2023
 - R.K. Paul. Machine learning techniques for forecasting yield of rice.
 - Soumen Pal. Determinants of wheat yield in Bihar and Eastern Uttar Pradesh of India.
- National Conference on **Recent Trends on Applied Statistics and Data Science** in the Memory of 100th Birthday of Late Professor MN Das organized by P.C. Mahalanobis Department of Statistics, Saurashtra University, Rajkot during January 28-29, 2023
 - Rajender Parsad. Response Surface Designs for Agricultural Experimentation. (Invited Talk)
- Late M.N. Das Birth Centenary Celebrations by Society of Statistics, Computer and Applications in online mode on February 01, 2023
 - Rajender Parsad. Life and Achievements of Late Professor MN Das. (Invited Talk)
- International Conference on **Significance of Statistical Sciences in Emerging in Scenario** (25th Conference of Society of Statistics and Computer Application (SSCA)) organized at Department of Statistics, University of Jammu, Jammu during February 15-17, 2023
 - Mukesh Kumar. Web based digital repository for agricultural technologies of ICAR. (Invited Talk)
 - R.K. Paul. Long memory with volatility: application of fractionally integrated GARCH model. (Invited Talk)
 - S. Dahiya. Language and crop specific in agricultural nutrition platform. (Invited Talk)
 - Alka Arora. Education Portal: e-Governance application for agricultural education programs. (Invited Talk)
 - Ramasubramaniam, V. A comparison of classification trees, Kohonen networks and rough sets for applications in agriculture. (Invited Talk)
 - Aditya Kaustav. Domain calibration estimators under two stage sampling design when population level auxiliary information is available at cluster level.
 - Anu Sharma. Metagenomics insights into microbial communities involved in major biogeochemical cycles in agriculture.
 - D.C. Mishra. Statistical significance of genomics data analysis.
 - Md. Samir Farooqi. Integrated web interface for the analysis of gene expression data using different gene selection tool.
 - M.A. Iquebal. AI/ML guided discovery of novel antimicrobial peptides in animal kingdom.
 - Sarika. Statistical aspects in genome-wide association studies.
 - Saurav Guha*, Rajender Parsad, Saumyadipta Pyne and Sudeep. Spatially Correlated Multivariate Fay-Herriot Models for Small Area Estimation. (Dr. MN Das Young Scientist Award Session)
- International Conference on **Blended Learning Ecosystems for Higher Education in Agriculture** hosted jointly by ICAR and the World Bank under NAHEP organized by ICAR-IASRI, New Delhi during March 21-23, 2023 at NASC Complex.
 - Sudeep. NAHEP - Blended Learning Platform and associated IT Initiatives. (Keynote Note in Plenary Session on-Blended Learning through the Lens of Emerging Technologies)

(*denotes the author (in case of multiple authors) who presented the paper)

Lecture Delivered (Outside institute)

- One lecture on **Application of ANN for time series forecasting** was delivered on 05.01.2023 at the Division of Agricultural Engineering, ICAR-IARI, New Delhi in a high-end workshop on Advance Techniques in Quality Analysis of agro-produce. (Bishal Gurung)
- Winter School on Advanced Analytical Tools for Social Science Research organized by ICAR-CMFRI, Kochi during January 11-31, 2023
 - Four lectures on (i) **Data classificatory techniques** on 17.01.2023, (ii) **Data dimensionality reduction techniques: PCA and Factor Analysis** on 18.01.2023, (iii) **Stochastic volatility models for forecasting** on 25.01.2023 and (iv) **Cluster analysis** on 30.01.2023. (Bishal Gurung)
 - One lecture on **Overview of deep learning model for forecasting along with some practical applications**

- of deep learning models on 24.01.2023 (online). (Kanchan Sinha)
 - Two lectures on (i) **Application of linear time series analysis** and (ii) **Nonlinear time series models for forecasting topics** on 23.01.2023. (Achal Lama)
 - Two online lectures on (i) **Technology forecasting** on 17.01.2023 and (ii) **Time series intervention model** on 30.01.2023. (Ramasubramanian V.)
- One lecture on **ICAR repository for knowledge management** was delivered on 18.01.2023 in 15 days Incubation Program “SHITIJ-2023-ABIC” organized by ZTM Unit, ICAR-IARI, New Delhi. (Alka Arora)
- One lecture on **Genome wide association mapping: concepts and analysis** was delivered on 23.01.2023 in the DST sponsored hands on training programme on Advanced Molecular Biology Techniques at Department of Genetics and Plant Breeding, Chaudhary Charan Singh University (CCSU), Meerut, UP during January 21-27, 2023. (Neeraj Budhlakoti)
- CAFT programme on ICT led extension: Content and Delivery Mechanism organized by Division of Agricultural Extension, ICAR-IARI, New Delhi during January 12- February 01, 2023
 - One lecture on **Web-based content management (HTML and Web Designing tool)** on 31.01.2023. (Soumen Pal)
 - One lecture on **Big Data and its scope** on 23.01.2023. (Anshu Bharadwaj)
 - One lecture on **Futuristic ICT led- agricultural extension approach- Kisan Sarathi** on 30.01.2023. (Sanjeev Kumar)
- One lecture on **Overview of AI in agricultural sciences** was delivered on 13.02.2023 in CAFT Training program on ICT-enabled solutions for Agricultural Extension and Market linkages in new Normal organized by Bihar Agricultural University, Sabour from January 30 - February 19, 2023. (Alka Arora)
- Five lectures on (i) **Design of experiments – advance**; (ii) **Data classificatory techniques: - cluster analysis**; (iii) **Data classificatory techniques: - discriminant function analysis**; (iv) **Data reduction techniques: principal component analysis**; (v) **Data reduction techniques: factor analysis** were delivered on 03.02.2023 and 04.02.2023 to the students of UHS Bagalkot in one-week training program on Statistical analysis of agricultural data using R Program during January 30, 2023 to February 4, 2023. (Susheel Kumar Sarkar)
- One lecture on **Application of R software in PGR management** was delivered on 13.02.2023 in 21 Days Online Training Programme on Management and Utilization of Plant Genetic Resources at ICAR-NBPGR, New Delhi from February 01-21, 2023. (D.C. Mishra)
- One lecture on **Significant Achievements in the Discipline of Agricultural Statistics** was delivered on 22.02.2023 as Professor in 61st Convocation of PG School, IARI. (Cini Varghese)
- One lecture on **Significant Achievements in the Discipline of Computer Applications and Bioinformatics** was delivered on 22.02.2023 as Professor in 61st Convocation of PG School, IARI. (Alka Arora)
- CAFT Short Course on Artificial Intelligence and Advances in ICT for Smart Agriculture and Food Processing held at CIAE Bhopal during February 23 to March 4, 2023.
 - One lecture on **ANN and its applications for food and agricultural processing** on 27.02.2023. (S.B. Lal)
 - One lecture on **Application of AI and Machine learning in food processing** on 23.02.2023. (Sanjeev Kumar)
- Training Programme on Application of Bioinformatics in Accelerating Agricultural Research, organized by ICAR-NAARM from February 13-17, 2023
 - One lecture on **RNA Seq data analysis** on 13.02.2023. (Ratna Prabha)
 - One lecture on **Gene regulatory Network analysis and protein structure prediction** on 14.02.2023. (Sarika Sahu)
- One lecture on **TMIS for HRD Nodal Officers** (Online Mode) at Competency Enhancement Programme for Effective Implementation of Training Functions by HRD Nodal Officers of ICAR organized by NAARM, Hyderabad during February 27 – March 1, 2023. (Shashi Dahiya)

PARTICIPATION

International Conference/ Workshop/Symposium etc.

- International conference on **Statistics, Probability, Data Science and related Areas** organized by Department of Statistics, Cochin University of Science and Technology and Indian Society for probability and statistics at Kochi, Kerala during January 04-06, 2023. (Mrinmoy Ray)
- International Conference on **Significance of Statistical Sciences in Emerging in Scenario** (25th Conference of Society of Statistics and Computer Application (SSCA)) organized at Department of Statistics, University of Jammu, Jammu during February 15-17, 2023. (Rajender Parsad, Mukesh Kumar, Ranjit Kumar Paul)

National Conference/ Workshop/ Seminar/ Symposia/Training/Foundation Course/ Annual Day/ Lectures, etc.

- National Conference on **Recent Trends on Applied Statistics and Data Science** in the Memory of 100th Birthday of Late Professor MN Das organized by P.C. Mahalanobis Department of Statistics, Saurashtra University, Rajkot during January 28-29, 2023. (Rajender Parsad)
- Consultation Workshop on **Consultation on Milestone Setting for SDG National Indicators and Identification of National Indicators for unaddressed SDG Targets** organized by MoSPI at SCOPE (near CGO) Complex, New Delhi on February 22, 2023. (Ramasubramanian V.)
- **Annual Conference of ICAR Directors, Vice Chancellors and Industires-2023** Organized by Indian Council of Agricultural Research, New Delhi during March 04-05, 2023. (Rajender Parsad)
- **ICAR Industry Stakeholder Consultation Meet** held on March 06, 2023 organized by AgriInnovate at NASC Complex, New Delhi. (Rajender Parsad and Sudeep)
- National Conference on **Policy Development and Implementation of Strategies for Academia Industry Government Linkages in Agricultural Higher Education in India** for Vice Chancellor of Agricultural Universities, Principal Secretaries/Secretaries of State Governments and top officials of Agro-based Industries organized at ICAR-NAARM, Hyderabad during March 12-13, 2023. (Rajender Parsad and Sudeep)
- Workshop for **Chief Data Officers of OGD Platform India** organized by OGD Team, NIC, MEITY, India on March 17, 2023 at India Habitat Centre, New Delhi. (Rajender Parsad)
- International Conference on **Blended Learning Ecosystems for Higher Education in Agriculture** hosted jointly by ICAR and the World Bank under NAHEP and organized by ICAR-IASRI, New Delhi during March 21-23, 2023 at NASC Complex. (All Scientists)

Meetings Attended

- Meeting for Introduction of Teaching Programme in ICAR Institutes-IARI Mega University on January 19, 2023 under the Chairmanship of secretary, DARE and Director General, ICAR. (Rajender Parsad)
- Meeting to discuss KISAN SARATHI 2.0 proposal under the Chairmanship of Secretary ICAR on February 01, 2023. (Rajender Parsad, Mukesh Kumar, KK Chaturvedi and Sanjeev Kumar)
- 130th Executive Council of National Academy of Agricultural Sciences on February 14, 2023. (Rajender Parsad)
- 418th Academic Council Meeting of Graduate School, ICAR-IARI, New Delhi held on February 23, 2023. (Rajender Parsad, Cini Varghese and Alka Arora)
- Meeting with Joint Secretary, Department of Food & Public Distribution, Ministry of Consumer Affairs, Food & Public Distribution under the Chairmanship of Director, ICAR-IASRI at ICAR-IASRI, New Delhi on February 28, 2023. (Tauqueer Ahmad)
- Fifth External Advisory Panel Meeting of NAHEP organized by ICAR-NAARM, Hyderabad on March 09, 2023 (Online). (Rajender Parsad, Sudeep, Alka arora, Anshu Bharadwaj)
- 94th Annual General Meeting of ICAR on March 10, 2023. (Rajender Parsad)

HUMAN RESOURCE DEVELOPMENT

Training Programmes/Workshops Organized: 7 (198 participants)

S.No.	Title	Venue	Period	No. of Participants
1	Advances in Statistical Techniques for Efficient Agricultural Experimentation. (Coordinators: Anindita Datta and Mohd Harun) <i>Sponsored by Centre of Advanced Faculty Training</i>	ICAR-IASRI New Delhi	January 11-31, 2023	25
2	Python for Artificial Intelligence in Agriculture. (Coordinators: Sudeep, Sanchita Naha, and Md Ashraful Haque) <i>Sponsored by Agricultural Education Division, ICAR</i>	ICAR-IASRI New Delhi	February 02-11, 2023	23
3	e-Governance Applications in ICAR for Administrative Staff (Coordinators: S.B. Lal and Mukesh Kumar)	ICAR-IASRI New Delhi (Online)	February 06-10, 2023	24
4	AI & Machine Learning in Agriculture using Python for research scholars (Coordinators: Sudeep Marwaha Sanjeev Kumar, Soumen Pal and Anindita Datta) <i>Sponsored by NAHEP CAAST sub-project 'Genomics Assisted crop improvement and management</i>	ICAR-IASRI, New Delhi	February 17, 2023	25
5	e-Governance Applications in ICAR for Technical Personnel (Coordinators: K.K. Chaturvedi, S.B. Lal and Sanjeev Kumar)	ICAR-IASRI New Delhi (Online)	February 22-28, 2023	45
6	Computational Biology and its Applications in Agriculture (Coordinators: Sudhir Srivastava, Sneha Murmu and Soumya Sharma) <i>Sponsored by Agricultural Education Division, ICAR</i>	ICAR-IASRI New Delhi	February 21-March 02, 2023	21
7	Statistical Analysis and Interpretation of Agricultural Data (Coordinators: Anil Kumar, Susheel Kumar Sarkar and Sukanta Dash)	ICAR-IASRI New Delhi (Online)	March 01-10, 2023	20
हिन्दी कार्यशाला				
8	परिक्षण अभिकल्पना के अनुप्रयोग (Coordinators: Susheel Sarkar and Sukanta Dash)	भा.कृ.अनु.प.-भा.कृ.सां. अ.सं., नई दिल्ली (ऑन-लाइन)	मार्च 28-29, 2023	15



Dr. D.K. Yadava, Assistant Director General (Seeds): Inaugural Function of CAFT Training programme Advances in Statistical Techniques for Efficient Agricultural Experimentation on January 11, 2023.



Dr. Suresh Kumar Chaudhari, Deputy Director General (NRM), ICAR: Valedictory Function of CAFT training programme Advances in Statistical Techniques for Efficient Agricultural Experimentation on January 31, 2023.



Dr. U.S. Gautam, DDG (Agricultural Extension), ICAR: Inaugural Session of training programme on Python for Artificial Intelligence in Agriculture, February 02, 2023.





Professor Balgobin Nandram Department of Mathematical Sciences, Worcester Polytechnic Institute, USA: Inaugural Function; Dr. Anuradha Agarwal, National Coordinator, NAHEP-2: Valedictory Function: CAAST training programme on AI & Machine Learning in Agriculture using Python: February 13-17, 2023



Dr. Subrata Kundu, Professor, Department of Statistics, George Washington University, Washington D.C., USA: Valedictory of training programme on Computational Biology and its Applications in Agriculture on March 02, 2023



Dr. Navin Jain, ADG(HRM), ICAR during Inaugural Session of training programme on e-Governance Applications in ICAR for Technical Personnel on February 22, 2023

Other Sensitization Training Programmes

- eLISS Web Portal and eLISS Data Collection App under the project **Integrated Sample Survey Solution for Major Livestock Products** at (i) Tirupati during February 02-03, 2023; (ii) Bhopal during February 08-10, 2023; (iii) Jaipur during February 16-17, 2023; (iv) Ranchi during February 23-24, 2023 and (v) Dehradun February 28-March 01, 2023. (Prachi Misra Sahoo)
- Online training on **AR /VR Installation, Configuration and Usage for SAUs.** (Sudeep)

Students passed out

- Institute congratulated all the 29 (Ph.D. and M.Sc.) Students (13 Agricultural Statistics, 9 Bioinformatics and 7 Computer Applications) in the 61st Convocation of PG School, ICAR-IARI, New Delhi for receiving their degrees from Honorable Vice President of India Sh. Jagdeep Dhankhar ji. ICAR-IASRI family wish them all the very best in all their future endeavors.





CONSULTANCY/ADVISORY SERVICES PROVIDED

- M.A. Iquebal advised (i) Dr. (Ms.) Naveen Singh, Principal Scientist, ICAR-IARI, New Delhi regarding QTL analysis in Brassica sp; (ii) Dr. Naveen Singh, Principal Scientist, ICAR-IARI, New Delhi regarding QTL analysis in Brassica sp.
- Sarika advised (i) Dr. Rajender Kumar, Principal Scientist, ICAR-IARI, New Delhi regarding molecular data analysis in chickpea and (ii) Dr. Rajender Kumar, Principal Scientist, ICAR-IARI, New Delhi regarding molecular data analysis in chickpea.
- Kaustav Aditya advised Dr. Parish, Research Engineer, AICRP on Energy in Agri. & Agro-Based Industries, College of Agricultural Engineering and Technology, Dr. Panjab Rao Deshmukh Krishi Vidyapeeth, Akola on 25th January 2023 on data collection under AICRP on EAAI project for cotton crop.
- Bishal Gurung advised (i) Dr. Vanishree G, Senior Scientist, ICAR-Indian Institute of Soil Science Regional Station, Bengaluru on the use of ANOVA for her research work; (ii) Sh. Nandini Roy, Ph.D., Soil Science, student from UBKV, West Bengal on the use of random forest technique to evaluate the degree of importance of the independent variables.
- Prakash Kumar advised Dr. Rekha Joshi, ICAR-IARI, New Delhi on genetic analysis and identification of potential breeding lines study of 151 genotype data.
- Rajeev Ranjan Kumar advised Sh. Harisha R., Ph.D. Scholar, Division of Genetics and Plant Breeding, ICAR-IARI, New Delhi on PCA and cluster analysis using R software.
- Raju Kumar advised Mr. Ajit Kumar, Ph.D. Scholar, Division of FS&PHT, ICAR-IARI, New Delhi for the Effect of hot water treatment and storage condition on the degradation of fungicide residue in apple fruit.
- Rahul Banerjee advised Er. Jitendra Rajput, Scientist, Division of Agricultural Engineering, ICAR-IARI in analyzing data obtained through Split Split Plot Design.
- Bharti advised (i) Sh. Deepak Sharma, Ph.D. Scholar from Dr. Yashwant Singh Parmar University of Horticulture & Forestry, Nauni, Solan on Genotype × Environment interaction and (ii) Sh. Pawan Kumar, Ph.D. student, UHF Nauni-Solan on Genotype × Environment interaction and stability analysis of resin yield.

AWARDS AND RECOGNITIONS

Awards

K.K. Chaturvedi

- **3rd prize in Oral Presentation** during National Conference on Futuristic approach to viable animal production vis-a-vis climate and calamity challenges held at College of Veterinary Science & Animal Husbandry, OUAT Bhubaneswar, Odisha during January 18-20, 2023 for the paper: {Gayathri SL*, Bhakat M, Mohanty TK, Chaturvedi KK, Kumar RR and Kumar S. Precise detection of mastitis by improved deep learning convolutional neural networks: a comprehensive assessment method using udder thermograms of Sahiwal cows}.

प्रकाशित समाचार

दिनांक : शुक्रवार, 17 मार्च, 2023

पृष्ठ संख्या : 05

देली हिन्दी मिलाप
DAILY HINDI MILAP
 Hyderabad

नार्म में राष्ट्रीय संगोष्ठी आयोजित



राष्ट्रीय संगोष्ठी के दौरान उपस्थित अधिकारी व कर्मचारी।

हैदराबाद, 16 मार्च-(मिलाप ब्यूरो) राष्ट्रीय कृषि अनुसंधान प्रबंध अकादमी (नार्म) द्वारा भारत में कृषि उच्च शिक्षा के लिए शिक्षा-उद्योग-सरकार लिंकेज के लिए नीति विकास और कर्मोन्वयन रणनीति विषय पर राष्ट्रीय संगोष्ठी का आयोजन किया गया, जिसका उद्घाटन एनएचईपी और डीडीजी (कृषि शिक्षा) के राष्ट्रीय निदेशक डॉ. आर.सी. अग्रवाल ने किया।

यहाँ जारी प्रेस विज्ञप्ति के अनुसार, उद्घाटन के पश्चात डॉ. आर.सी. अग्रवाल ने अपने संबोधन में पिछले वर्षों के दौरान परियोजना की प्रमुख उपलब्धियों पर प्रकाश डाला। उन्होंने

इससे संबंधित ज्ञान को साझा करने के लिए संस्थागत तंत्र के निर्माण, कार्रवाई योग्य समझौते ज्ञानों को कार्यान्वित करने और कृषि पाठ्यक्रमों के पुनर्गठन में परियोजना के महत्व को समझाया। नार्म के निदेशक डॉ. सी.एस. श्रीनिवास राव ने विविध क्षेत्रों और विभागों के प्रतिभागियों को सक्रिय भागीदारी के लिए प्रसन्नता व्यक्त कर कार्यवाही योग्य गुणवत्ता नीति दस्तावेज़ लाने का आश्वासन दिया।

एनएचईपी की एक्सटर्नल एडवाइज़री पैनल के सदस्य डॉ. पी.एल. गौतम ने उच्च शिक्षा को आगे बढ़ाने के लिए समझौते ज्ञानों,

समझौते आदि से संबंधित मुद्दों को डेबटी दिखाई। उन्होंने तीन दिवसों के अनुकूल सम्मेलन की सिफारिशों को परिष्कृत करने में सहयोग का आश्वासन दिया। इसके अलावा संगोष्ठी में पूर्व डीडीजी (शिक्षा) डॉ. एन.एस. राठी, आईएसआरआई नई दिल्ली के निदेशक डॉ. राजेंद्र प्रसाद ने विभिन्न पहलुओं पर प्रकाश डाला।

संगोष्ठी में चार तकनीकी सत्रों के तहत आमंत्रित प्रतिनिधियों के मध्य पैनल चर्चा का आयोजन किया गया, जिसमें शिक्षा, उद्योग, सरकारी लिंकेज आदि विषयों पर विस्तार पूर्वक विचार व्यक्त किए गए।

- (i) **Co-Chair**, Organizing Committee and (ii) **Member Advisory Committee** and (ii) **Chairman**, Local Coordination Committee, (iv) **Co-Chair** in the Plenary Session on Blended Learning Ecosystems and Community Outreach (March 23, 2023) and (v) **Panelist** in Panel discussion on Digital Transformation in Education Sector (March 23, 2023) during International Conference on Blended Learning Ecosystems for Higher Education in Agriculture hosted jointly by ICAR and the World Bank under NAHEP and organized by ICAR-IASRI, New Delhi during March 21-23, 2023 at NASC Complex.

PROJECTS/ SCHEMES/ PROGRAMME/ CENSUS/ SAMPLE SURVEYS/ EVALUATION STUDIES/ SOFTWARE DEVELOPED/ INITIATED/ COMPLETED

Initiated

- ‘Development of precision engineering technologies for agricultural input production management and value addition to ensure profitability, sustainability and environmental safety’ w.e.f. January 20, 2023. (**Samarth Godara**, Himadri Shekhar Roy)
- ‘Consortium of Research Project-Biofortification’ w.e.f. March 15, 2023. (**Sarika Sahu**)
- ‘Statistical approach to study the ecological effects on an integrated framework for GWAS and genomic selection’ w.e.f. March 17, 2023. (**Prakash Kumar**, Himadri Shekhar Roy, Neeraj Budhlakoti, Amrit Kumar Paul)

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S.No.	Name	Registration Number	Granted and (Received Date)
1	BuffGR: Buffalo Ge-nomic Resource	SW-16116/2023	23.03.2023 (19.05.2023)

PERSONNEL

Congratulations on your Promotion/ New Assignment/ New Joining

Name	Designation	Effective date
Sh. Mayank Singh Pundir	Assistant to Assistant Administrative Officer	20.01.2023
Sh. Gopal Singh	SSS to Lower Divisional Clerk	30.12.2022
Dr. Anil Rai	Principal Scientist and Head(A), Division Agricultural Bioinformatics to ADG(ICT), ICAR	23.01.2023
Sh. Manoj Kumar	CTO Hindi Translator	07.02.2023 (Joined after transfer from ICAR, New Delhi)
Dr. Dinesh Kumar	Principal Scientist	01.03.2023 (Joined after deputation from CU, Haryana)
Dr. Anil Kumar	Principal Scientist and Head(A), Division of Design of Experiments to ADG(Coordination), ICAR	14.03.2023

Wish you a Happy Retired Life

Name	Designation	Effective date
Sh. V.R. Senthil Kumar	CTO	01.02.2023
Sh. Raj Karan	SSS	28.02.2023
Ms. Alka Nayyar	Private Secretary	31.03.2023

Transfer/ Deputation/Resignation/Relieved

Name	Designation	Effective date
Dr. Ratan Prabha	Scientist	09.03.2023 (transferred to ICAR-Indian Agricultural Research Institute, New Delhi)



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Azadi Ka
Amrit Mahotsav

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Rajender Parsad and Ajit

Technical & Secretarial Assistance:

Neha Narang, Sunita, Anil Kumar and V. P. Singh

Published by:

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