ICAR-CIAE Newsletter

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FROM DIRECTOR'S DESK

CIAE's initiatives in machine vision and AI-based technologies for smart agriculture

CIAE continues to lead innovations in agricultural mechanization and digital technologies that empower farmers with data-driven decision-making tools. Among the most promising developments are the applications of machine vision, spectroscopy and AI-based software platforms for crop monitoring, irrigation scheduling, and yield estimation. Machine vision technologies, supported by artificial intelligence, enable precise and non-destructive monitoring of crops. Through image-based analysis using drones, cameras, and field sensors, these systems help to detect plant stress, diseases, and nutrient deficiencies in real time, facilitating timely interventions and efficient input use.

Complementing this, CIAE is actively developing and strengthening its expertise in web-based software tools that enhance the accessibility and utility of field data. These indigenously developed platforms integrate real-time information on weather, soil moisture, and crop growth to enable automated irrigation scheduling and accurate yield forecasting. By advancing such digital solutions, CIAE is empowering farmers and stakeholders to optimize water use, improve crop management decisions, and plan harvest operations more efficiently.

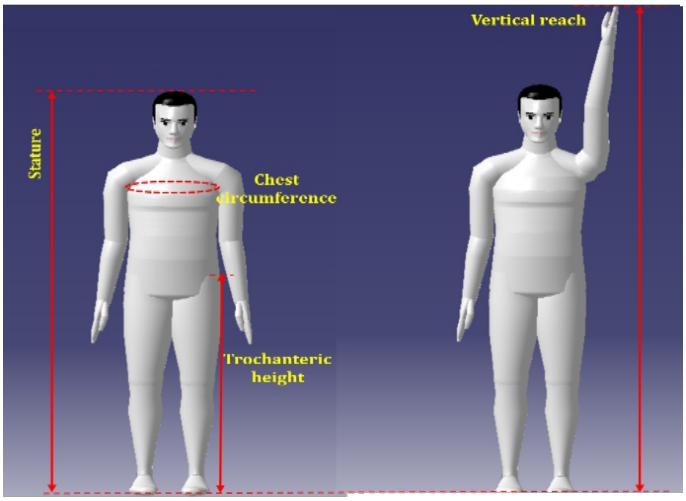
In addition to machine vision and digital platforms, spectroscopy offers a powerful, non-destructive, and rapid approach to analyzing agricultural inputs and outputs with high precision. It has immense potential to revolutionize areas such as soil nutrient assessment, crop health monitoring, pest and disease detection, and post-harvest quality evaluation. However, the adoption of spectroscopy in Indian agriculture remains limited. Several systemic barriers hinder its widespread application, including the absence of uniform protocols and validated predictive models that can reliably translate spectral data into actionable insights. Moreover, most of the existing instruments are expensive, imported, and not calibrated for Indian field conditions, making them inaccessible to small and marginal farmers.

Such technological advancements collectively align with CIAE's mission to foster smart, sustainable, and climate-resilient agriculture. By combining engineering expertise with digital innovation, CIAE is strengthening the foundation of precision farming in India to ensure higher productivity, improved resource efficiency, and enhanced livelihoods for farmers.

RESEARCH & DEVELOPMENT

Machine vision-based measurement of human anthropometric dimensions for farm machinery and work-space design

This study presents the development and optimization of a computer vision (CV)-based system using YOLOv8 and a 3D depth sensor for precise, contactless measurement of key body dimensions viz stature, vertical reach, trochanteric height, and chest circumference, as an alternative to manual techniques. The experimental set up employed the Intel RealSense D435i depth camera to capture images from three views (front, diagonal, and side) at three distances (2.5 m, 3.0 m, and 3.5 m). Image processing and analysis were performed using Python libraries such as



pyrealsense2, OpenCV, and pandas. Manual measurements from male and female participants served as the reference standard. Accuracy was assessed using mean absolute difference (MAD) and mean absolute percentage error (MAPE). Results showed that under optimized conditions; specifically, a front-facing view at 3.0 m, the CV system produced measurements closely aligned with manual methods. For example, stature and trochanteric height showed MADs as low as 4–6 mm, while vertical reach and chest circumference exhibited slightly higher variability. A paired t-test revealed no statistically significant differences between CV and manual measurements, confirming the system's reliability.

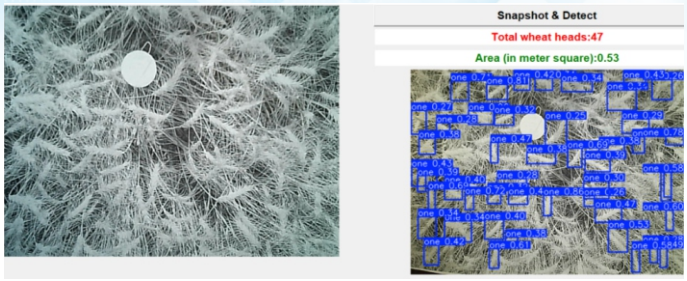
Remote controlled multi-purpose agriculture machine

A remotely operated, electric multi-purpose machine for sowing (groundnut, Bengal gram, maize, and jowar) and pesticide spraying has been developed under AICRP on FIM (PJTSAU, Hyderabad). The machine is powered by 12 V, 28 Ah batteries and a brushless DC motor with a gear reduction unit for high torque and improved efficiency. Additional components include a motor controller, relay driver unit, sowing unit, spraying pump, tank, and nozzles. Field trials revealed that for maize sowing, the machine achieved a field capacity of 0.20 ha h^{-1}, field efficiency of 74%, missing index of 6.6, multiple index of 23.3, quality

feed index of 70.1, and germination rate of 85% at an operating speed of 2 km h^{-1}. For spraying at 15 DAS, the uniformity coefficient ranged from 1.35 to 3.35, droplet density from 30 to 62.3 droplets cm^{-2}, and volume median diameter from 232 to 373 μm at speeds of 2.0–2.5 km h^{-1}. The cost of operation was Rs 350/h for spraying and Rs 472/h for sowing, with breakeven points of 515 h (sprayer) and 630 h (seed drill) per year, and payback periods of 2.19 and 3.33 years, respectively.

Web based software for counting wheat ear-heads

Crop yield estimation in India is traditionally performed through Crop Cutting Experiments



(CCE), which are accurate but time-consuming and labor-intensive. In this study, RGB images of wheat fields were used to train two YOLOv8 object detection models through transfer learning i.e. one to detect wheat ear-heads and another to identify a circular reference object used to calculate the area in the image. The reference marker was a white plate (0.08 m diameter) placed at ear-head height using an adjustable iron rod. The ear-head detection model used 127,813 training and 36,518 validation instances, while the reference object model used 183 training and 21 validation images. The training process utilized Python packages such as Ultralytics, OpenCV, NumPy, and Matplotlib. The reference detection model achieved a precision of 99%. Both models were integrated into a web application (Flask–HTML interface) running on the CIAE intranet, enabling users to upload field images and automatically obtain ear-head counts and computed area.

Investigation on efficacy of drone spraying system for nano urea application in wheat and maize crops

A field experiment was conducted to evaluate the effectiveness of applying nano urea (Nano Urea Plus, 20% N w/v, IFFCO, New Delhi) to maize crop using a drone as compared with conventional nitrogen application methods. Three treatments were tested: (i) broadcasting prilled urea at 110 kg/ha, (ii) spraying nano urea with a gun sprayer at 1.25 L/ha using 500 L/ha spray volume, and (iii) spraying nano urea using a drone at the same rate (1.25 L/ha) but with a much lower spray volume of 25 L/ha. Vegetation indices including the Normalized Difference Vegetation Index (NDVI) measured with a GreenSeeker and chlorophyll content using a SPAD meter were recorded one day before and eight days after nitrogen application. Before application, NDVI (0.73–0.74) and SPAD values (38–40) were similar among treatments. After application, minor increase were observed, with NDVI rising to 0.76–0.77 and SPAD values to 39–41. Biomass yields were 41.53 t/ha for prilled urea, 49.74 t/ha for the gun sprayer, and 45.01 t/ha for the drone; and grain yields followed a similar trend of 9.18, 10.97, and 9.47 t/ha, respectively. Although differences were not statistically significant, drone-based nano urea application performed comparably to conventional methods while requiring much less spray volume and offering operational efficiency.

Growth and yield performance of maize crop under conservation agriculture

The maize variety VNR 4226 was cultivated under a conservation agriculture (CA) system on one acre of land at institute farm. The crop was sown using four different implements viz tractor drawn slit-till drill, mulcher-cum-seeder, conservation seeder, and Happy seeder to evaluate their performance under field conditions. Nutrient management,

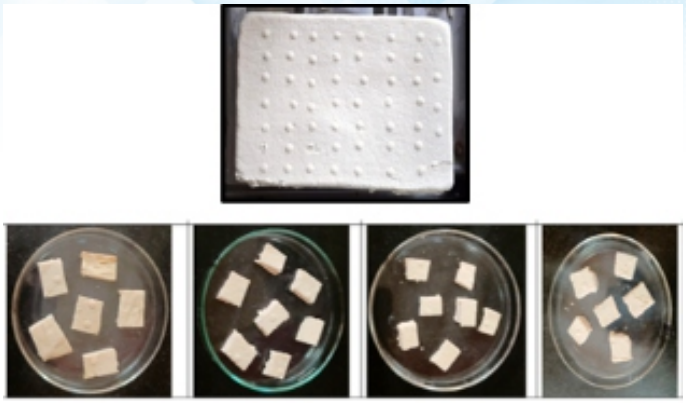
including the application of urea, DAP, humic acid, zinc, and sulphur, was carried out as per recommendations to ensure balanced crop nutrition. The average field performance showed 9.58 plants per square metre, 1.9 m plant height, and 7.58 cobs per square metre, with a grain yield of 8.88 t/ha, straw yield of 14.92 t/ha, and total biomass of 23.80 t/ha, indicating vigorous crop growth and high productivity under CA management.

Process technology for fermented soya-millet-based beverage powder

A novel fermented soya–millet-based beverage powder was developed using soy curd, roasted finger millet powder, sorghum curd, soymilk powder, and natural flavouring agents. The process involved controlled fermentation of soy and sorghum, blending with roasted millet flour, and subsequent drying to obtain a stable, re-constitutable powder. The protein content ranged from 11.08% to 12.14%, with low moisture levels (7.5%), ensuring better nutritional and functional properties with shelf stability.

Development of hybrid cultured vegan tofu

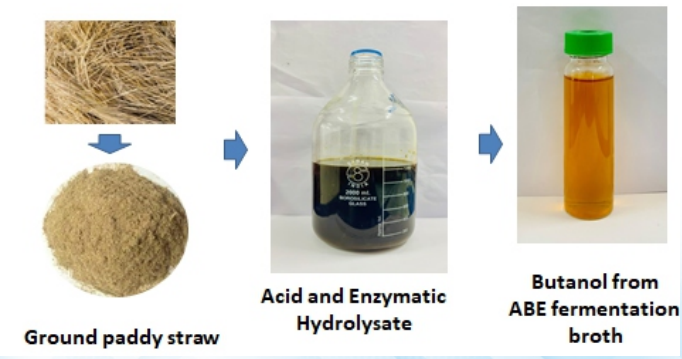
A Hybrid Cultured Vegan Tofu (HCVT) has been developed as a nutritious and sustainable alternative to regular soy tofu. Unlike conventional tofu made only from soy milk, this product is produced by blending soy milk with other plant-based milk, giving it a lighter color, smoother texture, and better taste. Among several experimental formulations, the best result was achieved with a 50:50 blend of soy milk and vegan



milk, which was found to be less brittle, more appealing in appearance, and more enjoyable in mouthfeel. Nutritional analysis showed that this hybrid tofu contained a higher moisture content (63.66% ± 0.66%), increased crude fiber (2.73% ± 0.02%), and a good level of protein (6.2% ± 0.22%), making it a balanced food choice for health-conscious consumers.

Bio-Butanol Generation from Paddy Straw

The operating conditions and nutrient media composition for acetone-butanol-ethanol (ABE) fermentation of paddy straw hydrolysate were optimized to improve butanol yield. The ABE fermentation was carried out using strain Clostridium acetobutylicum under anaerobic conditions for seven days. The fermentation broth was analysed to quantify the concentrations of butanol and ethanol in the ABE mixture using acetone as a solvent through gas chromatography–mass spectrometry (GC-MS). GC–MS analysis confirmed the presence of ethanol and butanol as the major fermentation products. The optimized process parameters were identified as temperature (37 °C), agitation speed (100 rpm), pH



(4), inoculum size (15%), nitrogen source (5 g/L), PABA (2 mg/L), and magnesium sulphate (0.6 g/L). Under the optimized conditions, the butanol yield was observed to be 0.109 g/g of paddy straw which is 0.135 ml/g of paddy straw.

Honorable Agriculture & Farmers Welfare Minister, GoI, distributed farm equipment kit to SC-BPL beneficiaries

On 22 September, 2025, distribution of farm equipment kit to SC-BPL beneficiaries was organized in the presence of Hon'ble Union Minister of Agriculture & Farmers Welfare, Shri Shivraj Singh Chouhan. During the program, 500 farm input kits were distributed to SC-BPL beneficiaries from Sehore district of Madhya Pradesh. The distribution kit included battery-operated knapsack sprayer, vegetable transplanter, maize sheller, self-sharpening sickle, and packet of vegetable seeds. Addressing the gathering, Shri Shivraj Singh Chouhan Ji emphasized that such initiatives empower small and marginal farmers by enhancing productivity and reducing drudgery. During the event, Dr. SN Jha, DDG (Agricultural Engineering), ICAR and Dr. CR Mehta, Director, ICAR-CIAE also highlighted CIAE's commitment to promoting farm mechanization and improving livelihoods of small farmers under the SCSP scheme.

Technologies released during ICAR Foundation Day

Following two technologies were released and certified by ICAR during its Foundation day on 16 July 2025

- ICAR-CIAE DCR 3-in-1 Cashew nut separator, pulp extractor, and fibrous material separator
- ICAR-CIAE NRCB Continuous feed banana fibre extraction equipment

New External Funded Projects

Title of the Project	Budget (Rs in Lakh)	Funded by
Upscaling of probiotic (MTCC –5463) enriched soymilk-based chocolate confectionery: investigating the impact of storage on biofunctional properties	6.55	MPCST
Strengthening tribal farming through farm machinery custom hiring centres in Tamil Nadu	532.798	Directorate of Tribal Welfare, Govt. of Tamil Nadu, Chennai

Training

Training on AI & ML Applications in Agriculture Mechanization Sector

The Coordination Cell of AICRP on FIM organized training on AI & ML Applications in Agriculture Mechanization Sector during 7-12 July, 2025. Total 23 scientists participated, including 18 from AICRP on Farm Implements and Machinery (FIM) and 5 from AICRP on Mechanization of Animal Husbandry (MAH). Through lectures, discussions, and demonstrations, the programme provided participants with exposure to advanced AI/ML tools, real-world case studies, and potential applications in designing sustainable, efficient, and farmer-oriented mechanization technologies.

Training on Ergonomical Design Guidelines for Agricultural Tool, Equipment and Work Places

The Coordination Cell of AICRP on ESAAS organized training on Ergonomic Design Guidelines for Agricultural Tools, Equipment, and Workplaces to increase workers productivity and minimize drudgery and health risks during 8-12 September, 2025. Total 22 participants including 4 from ICAR Institutes, 17 from SAUs and 1 from Industry attended the training programme. The programme offered a holistic perspective on designing agricultural implements and tractor workspaces, with a strong focus on ergonomic considerations.

Entrepreneurship Development for Custom Hiring of Agricultural Machinery

Five custom hiring training programs of agricultural machinery were organized, with a total of 156 participants during 18-22 August, 2025; 25-29 August, 2025; 1-5 September, 2025; 8-12 September, 2025 and 22-26 September, 2025. The training programs aimed at enhancing the skills and knowledge of individuals in custom hiring services, focusing on modern agricultural machinery and their efficient usage. The program was designed to equip participants with the necessary technical expertise, improving their capabilities to provide custom hiring services to farmers.

Master Training Programme on Soybean Processing

Master Training Programme on Soybean Processing and Establishing demonstration units was organised during 14-18 July, 2025, attended by 8 participants from Delhi, Rajasthan, Gujarat, Bihar, and Chhattisgarh states. The training aimed to enhance knowledge and skills in soybean-

based value addition and entrepreneurship development.

Hands-on training programs on soybean processing and utilization for food uses

Two hands-on training programs on soybean processing and utilization for food uses were organized during 21-23 July 2025 and 16–18 September, 2025, attended by 7 entrepreneurs from Madhya Pradesh, Maharashtra and Haryana. The training module consisted of practical demonstrations and hands-on sessions, supported by relevant theoretical concepts. The programs covered a wide range of topics, including the preparation of soy-based food products, soymilk and tofu, an introduction to soy processing equipment, project planning, storage and packaging, quality standards, and marketing of soy products.

Skill development training for tribal youth

Skill development training for educated tribal youth on the theme “Farm machinery repair and maintenance” was organized at Regional Station, Coimbatore. The programme covered various aspects of farm machinery including the operation, repair, and maintenance of agricultural machinery.

Entrepreneurship Development in Food Processing

Training on Entrepreneurship Development in Food Processing was organized during 8-12 September, 2025. The programme aimed to build entrepreneurial capacity among aspiring food processors, with a special emphasis on millet- and soybean-based value-added products. Two trainees from New Delhi and Nagpur actively participated in the training program.

Practical training under SCSP

Under SCSP programme, skill development and product development in soybean processing was organized during 15-17 September, 2025. The training aimed to enhance their capabilities in both

skill development and product development, contributing to their economic independence and encouraging value addition at the farm level. Fifty women farmers were trained in soybean processing techniques.

Training on Operation and Maintenance of Tractors and Agricultural Machinery

Training on Operation, Maintenance, Repair and Testing of Tractors, Agricultural Machinery and Allied Engineering Technologies was organized during 1-5 September, 2025, attended by 35 participants. The training includes lectures as well as practical exposure on seeding and planting machinery, weeding and plant protection machinery including drones, conservation agricultural machinery, precision farming, AI in agriculture, tillage machinery, harvesting & threshing machinery, DAP based machinery (animal drawn), workshop machines & measuring instruments and manufacturing of agricultural machinery, testing of agricultural machinery, and ergonomics and safety considerations.

Academic Trainings for UG/PG Students

Academic training for UG/PG students was organized from 14 July to 13 August, 2025; 4-21 August, 2025; 25 August to 30 September, 2025 and 1-30 September, 2025. The practical training programs on crop production, processing, energy & irrigation technologies were organised.

Technology demonstration at farmer's fields

Sl. No.	Technology demonstrated	Village(s)	No. of farmers benefitted	Area (ha)
1.	Bullock operated machinery	Dewari, Tekadi, Hathoda, Khapriya, Katangi villages of Balaghat district	77	5
2.	Solar operated sprayer pump	Raipura (Dist. Sehore) and Jaitpura (Dist. Vidisha)	55	1

Demonstration of technologies by Regional Station, Coimbatore

On 14 August, 2025, the ICAR-CIAE Regional Station, Coimbatore demonstrated Banana Pseudostem Injector and Small Hybrid Solar Dryer at ICAR-KVK, Erode. About 125 farmers witnessed the demonstration.

Media Activities

Sl. No.	Date	Media	Title	Speaker
1.	6 July, 2025	Hello Gram Sabha-Live phone in program, Akashvani Kendra, Bhopal	Sowing and Management of Kharif Crops	Dr. M.P Singh, SMS, Agronomy
2.	July-September, 2025	Aakashvani, Jhansi	Radio Talk Series Krishi Yantron ki Radio Pathshala	Dr. CR Mehta, Director, CIAE Dr. KN Agrawal, PC, FIM Dr. Sandip Gangil, Head, AEPD Dr. UR Badegaonkar, Head, TTD Dr. SP Singh, PC, UAE
3.	29 September, 2025	Doordarshan, Bhopal	Krishi Yantro ki Upyogita and Mahtav, Krishi Darshan (Live)	Dr. C R Mehta, Director, CIAE

KVK News

On Farm Testing (OFT) and Frontline Demonstration (FLD)

Sl. No.	Crop/ Technology	Villages	No. of farmers	Area (ha)
	On Farm Testing			
1.	Assessment of natural and synthetic nutrient inputs in Rice cultivation	Lamba Kheda	2	0.20
2.	Assessment of Nano DAP in Soybean	Gondar Mau	2	0.20
3.	Assessment of Value-Added Products from Jamun Fruit	Raipur	5	-
4.	Assessment of different rice cultivation techniques	Lamba Kheda	2	1
5.	Assessment of different machinery for Soybean sowing	Lamba Kheda	1	1.25
6.	Assessment of soybean var. JS 2309	Raipur	5	1
7.	Assessment of trace mineral mixture supplementation on production performance of post-partum dairy animals	Ratatal, Golkhedi, Bhairopura, Acharpura	5	-
	Frontline Demonstration			
1.	Demonstration of Soybean var. JS-2098	Khajuri Ratatal, Gondarmau, Ratatal, Raipur, Mungaliya Haat, Nipaniya Jaat, Barrichirr Kheda	19	8.0
2.	Demonstration of value-added products of Bael fruit	Raipur	12	-
3.	Demonstration of Inclined Plate Planter for maize sowing	Lamba Kheda	5	1
4.	Demonstration of deworming practice in dairy calves on their growth performance	Ratatal, Golkhedi, Bhairopura, Acharpura	7	-

Training organized

Sl. No.	Title of the training	Date	No of participants
1.	Jamun based value added products	1-2 July, 2025	53
2.	Bael fruit-based value-added products	14-15 July, 2025	69
3.	Animal health management	8-9 September, 2025	28
4.	Rural Agriculture Work Experience (RAWE) for B.Sc. Agriculture final year students from RNTU, Bhopal	28 July to 1 August 2025	45
5.	Rural Agriculture Work Experience (RAWE) for B.Sc. Agriculture final year students from LNCT, Bhopal	18 August, 2025 - ongoing	64

KVK Events

- Parthenium Awareness Week was celebrated at KVK CIAE-Bhopal from 16 to 22 Aug 2025 to sensitize stakeholders on harmful impacts of the invasive weed. Activities included expert talks, awareness rally, uprooting drives & awareness campaigns.
- A nutritional awareness program for Anganwadi workers and Discussion on hunger screening and malnutrition management in SAM children was organized on 10.09.2025 and 30.09.2025, respectively, as part of the 8th National Nutrition Month in collaboration with the Women and Child Development Department at KVK, Bhopal.

Test Reports of commercial machinery released

	No. of Test Reports Released	Revenue Generated (Rs in lakh)
Farm Machinery	23	38.22
Post-harvest machinery	16	11.09

Participation in Exhibitions

Sl. No.	Exhibitions	Date	Place
1	Agri Intex 2025	10-14 July, 2025	CODISSIA, Coimbatore
2.	Kissan Mela – 2025	21 August, 2025	ICAR NRC Banana, Tiruchirapalli

MoUs signed

Sl. No.	Research/Technology	Signed with	Signing Date
1.	A Mobile App for farmers to help them in Agriculture Activities: Krishi Sewa	IIT, Indore	08.07.2025
2.	Strategies for reducing post-harvest losses in selected fruits and vegetables.	ICAR-CIPHET, Ludhiana	21.08.2025
3.	Development of AI based generative models and diagnostic devices for agriculture	IISER, Bhopal	16.09.2025

Human Resource Development

Name and Designation	Training Title	Duration	Organizer
Dr NS Chandel, Senior Scientist & Dr Yogesh Rajwade, Scientist	Cultivating Intelligence : MATLAB for Agri-Innovation Empowering Agricultural Innovation with MATLAB, Simulink & Thingspeak	5-7 August, 2025	ICAR-NISA, Ranchi
Dr. Abhishek M. Waghaye, Scientist	Advances in Mo bile Application Development	18-22 August, 2025	ICAR-NAARM Hyderabad (Virtual mode)
Dr. CK Saxena, Senior Scientist	iGOT training on Soil and Water Conservation and Topsoil Erosion Control	25 August 2025	National Institute of Agricultural Extension Management (MANAGE) (Virtual mode)
Dr Muzaffar Hasan, Scientist (SS)	Uncertainty of Measurement and Decision Rule as per ISO/IEC 17025:2017	21-22 August, 2025	NABET, Quality Council of India (Virtual mode)
Mrs. Sita Chaudhary, SMS Agronomy	Organic and Natural farming	8-12 September, 2025	SIAET, Bhopal

Foreign deputation tour on "Innovative Technologies for Food Security" to the Hague, Netherlands during 15-19 September, 2025

Dr. Subir Kumar Chakraborty was nominated by Asian Productivity Organization, Tokyo, Japan for a 5 days study tour on "Innovative Technologies for Food Security" to The Hague, Netherlands from 15-19 September, 2025. The study tour comprised visits to various research and innovations facilities at Aeres University of Applied Sciences, Dronten; precision farming technologies on protected cultivation in Wageningen University & Research - Farm of the Future, Lelystad; technologies for sustainable farming at Wageningen University, Wageningen; demonstration of the whole Dutch horticulture market and marketing at the World Horti Center and Dutch Greenhouse Delta, Naaldwijk; fully automatic robotic facilities for animal farming at Lely Campus, Maassluis; atFoodX, Ede witnessed a dedicated set-up to foster innovative startups in the food and agriculture technology sector focusing on solutions that enhance food security through precision agriculture, AI, robotics, and blockchain applications.

Publications

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Events organized

हिन्दी पखवाड़ा

केन्द्रीय कृषि अभियांत्रिकी संस्थान, भोपाल के निदेशक डॉ. सी. आर. मेहता की अध्यक्षता में हिन्दी पखवाड़ा उद्घाटन कार्यक्रम एवं हिन्दी दिवस का 16 सितंबर, 2025 को आयोजन किया गया। हिन्दी पखवाड़े के दौरान संस्थान के अधिकारियों एवं कर्मचारियों हेतु विभिन्न उप समितियों के द्वारा हिन्दीतरभाषी सरल हिन्दी ज्ञान प्रतियोगिता, हिन्दी नोटिंग एवं ड्राफ्टिंग प्रतियोगिता, हिन्दी प्रश्नमंच गतिविधि, राष्ट्रीय वैज्ञानिक संगोष्ठी में शोधपत्र प्रस्तुतीकरण प्रतियोगिता, तकनीकी श्रेणी लिखित प्रतियोगिता, हिंदी निबंध प्रतियोगिता तथा हिन्दी वाद-विवाद प्रतियोगिता का आयोजन किया गया। संस्थान के निदेशक डा. सी. आर. मेहता की अध्यक्षता तथा डॉ. मनीषा श्रीवास्तव, निदेशक, भोपाल मेमोरियल हॉस्पिटल एवं अनुसंधान केन्द्र के मुख्य आतिथ्य में 26 सितंबर, 2025 को संस्थान के रजत जयंती सभागार में संपन्न राजभाषा पुरस्कार वितरण समारोह में हिन्दी पखवाड़े के दौरान आयोजित प्रतियोगिताओं के विजेताओं को प्रमाणपत्र से सम्मानित कर सरकारी कामकाज में हिन्दी के प्रयोग, प्रचार, प्रसार एवं कार्यान्वयन के लिए प्रोत्साहित किया गया। अपने अध्यक्षीय संबोधन में निदेशक डा. मेहता ने सभी अधिकारियों एवं कर्मचारियों से भारत सरकार के वार्षिक राजभाषा कार्यक्रम में हिन्दी के प्रचार, प्रसार एवं सरकारी कामकाज में कार्यान्वयन हेतु निर्धारित लक्ष्यों की प्राप्ति हेतु सार्थक प्रयासों की अपील की। कार्यक्रम की मुख्य अतिथि डॉ. मनीषा श्रीवास्तव, निदेशक, भोपाल मेमोरियल हॉस्पिटल एवं रिसर्च सेन्टर ने सरकारी कामकाज में सरल एवं सुबोध हिन्दी के प्रयोग पर बल दिया। हिन्दी दिवस एवं पखवाड़ा समापन कार्यक्रम में हिन्दी पखवाड़ा आयोजन समिति के अध्यक्ष डॉ. संदीप गांगिल, प्रभागाध्यक्ष, कृषि ऊर्जा एवं शक्ति प्रभाग, संस्थान के सभी प्रभागाध्यक्ष, परियोजनाओं के परियोजना समन्वयक, विभिन्न अनुभागों के प्रभारी, वैज्ञानिक, प्रशासनिक, तकनीकी संवर्ग के सभी अधिकारी, कर्मचारी तथा संस्थान के विद्यार्थी आदि शामिल हुए। कोयम्बटूर क्षेत्रीय स्टेशन के अधिकारी एवं स्टाफ वर्चुअल माध्यम से उक्त दोनों कार्यक्रमों में शामिल हुए।

हिन्दी कार्यशाला

संस्थान के निदेशक श्री सी. आर. मेहता की अध्यक्षता तथा श्री अभिषेक यादव, मुख्य प्रशासनिक अधिकारी के समग्र समन्वय में दिनांक 06.5.2025 को निदेशक समिति कक्ष में "राजभाषा हिन्दी का प्रबंधन/कार्यान्वयन तथा जीवन मूल्यों में साहित्य का योगदान" विषय पर 78 प्रतिभागियों के लिए हिन्दी कार्यशाला के दो सत्रों का आयोजन किया गया। उक्त कार्यशाला में भारतीय ज्ञानपीठ के नवलेखन पुरस्कार से सम्मानित कवि एवं लेखक डॉ. अरुणाभ सौरभ ने मुख्य अतिथि वक्ता के रूप में विशेषज्ञ व्याख्यान दिया। परिषद गीत की ऑडियो प्रस्तुति, दीप प्रज्ज्वलन, मुख्य अतिथि के सम्मान एवं प्रतिभागियों के परिचय के

साथ कार्यशाला का प्रारंभ हुआ। कार्यशाला के दौरान प्रतिभागियों के प्रश्नों एवं शंकाओं का समुचित समाधान भी किया गया। मंच संचालन श्री राकेश कुमार, उप निदेशक(राजभाषा) ने तथा धन्यवाद ज्ञापन श्री राजेश तिवारी, सहायक मुख्य तकनीकी अधिकारी ने प्रस्तुत किया।

Swachhta hi Seva Pakhwada

Swachhta Hi Seva Pakhwada was observed from 17 September to 2 October 2025 at the Institute's main campus and the Regional Station, Coimbatore. A series of activities were organized to promote cleanliness, greenery, and community participation. The programme began with the Swachhta pledge, the display of a banner at the selfie point, and a plantation drive under “Ek Ped Maa Ke Naam,” symbolizing love and respect for Mother Earth. Various competitions such as essay, painting, poster-making, slogan-writing, and quizzes were conducted for school children, along with wall painting and beautification efforts. Community-focused initiatives including Swachhata Samvad, street plays, health camps for sanitation workers, welfare scheme linkages, and the formation of a symbolic human chain were carried out to enhance public involvement. Additional activities included Mission LiFE initiatives on Reduce–Reuse–Recycle, the Clean Green Utsav, extensive cleaning drives across public spaces, nationwide Shramdan on 25 September, Waste-to-Art initiatives, PPE distribution, walkathons, cycle rallies, and facilitation of benefits under major government welfare schemes. At the Regional Station, Coimbatore, a special cleanliness and public awareness programme was conducted on 24 September 2025, followed by cleaning activities near the historic Perur Temple, where staff and students contributed to maintaining the sanctity of the heritage site. On 26 September 2025, an SBM Cultural Fest was organized, highlighting cleanliness through art, song, and drama. The Pakhwada concluded on 2 October with Swachh Bharat Diwas celebrations, recognition of Safai Mitras, and award distribution, ensuring active participation from staff, students, community members, and partner organizations throughout the period.

IMC Meeting

The 55th Meeting of the Institute Management Committee (IMC) of ICAR–Central Institute of Agricultural Engineering (CIAE), Bhopal, was held on 28th August 2025 under the chairmanship of Dr. CR Mehta, Director, ICAR–CIAE, Bhopal. The meeting was attended by the IMC Members, along with the Dr. K P Singh, ADG (FE), ICAR, Heads, Project Coordinators, and In-charges of ICAR–CIAE, Bhopal, as invitees.

The Committee expressed satisfaction over the progress and achievements of the Institute,

particularly appreciating the significant improvement in revenue generation and overall institutional performance.

During the meeting, various agendas were discussed in detail related to procurement of scientific equipment and maintenance of Institute infrastructure.

Live telecast of PM-KISAN Samman Nidhi

Live telecast of distribution of 20th instalment of the PM-KISAN Samman Nidhi and Demonstration of Improved Farm Tools/Equipment on 2nd August 2025, a special programme was organized for 250 farmers including SC-BPL beneficiaries from different villages of Bhopal district. During this event, beneficiaries witnessed a live demonstration of improved farm tools and equipment, aimed at enhancing agricultural productivity and promoting the adoption of modern farming practices. In addition, the programme also coincided with the distribution of 20th instalment of the PM-KISAN scheme, ensuring that farmers not only receive financial support but also gain practical knowledge on using advanced farm implements. The combined initiative was designed to achieve widespread farmer outreach, encourage meaningful participation, and empower the local farming community with both resources and skills to improve their livelihood. The event was graced by the Director of ICAR-CIAE, along with Jan Pratinidhi and Sarpanchs of nearby villages.

Other events

Teachers' Day celebration

Students of CIAE Bhopal celebrated Teachers' Day on 5th September with much enthusiasm. Students expressed appreciation through brief speeches and cultural performances, highlighting the guidance and inspiration they receive from their mentors. Teachers shared their experiences and encouraged students to pursue excellence in agricultural engineering and research.

Independence Day Celebration

The Institute celebrated Independence Day with special pride and passion, keeping in view the Golden Jubilee year of the institute. The event highlighted both the spirit of national freedom and the institute's 50-year journey of contributions to agricultural engineering and rural development. The celebration began with the hoisting of the national flag, followed by the singing of the National Anthem. In the Golden Jubilee context, Director's address emphasized CIAE's achievements over the past five decades, its role in innovative farm mechanization, and its commitment to supporting farmers through research and technology.

Students, staff, and scientists participated actively, presenting short speeches and cultural performances that reflected patriotism and the

institute's legacy. Special mention was made of the institute's pioneers and the milestones achieved since its establishment. The program concluded with a reaffirmation of dedication toward national development, agricultural progress, and the continued excellence of CIAE as it celebrates its 50-year milestone.

Transfer of Staff

Sl. No.	Name and Designation	Transfer Date	New place of posting	Whether own request/ public interest
1.	Sh. Aman Mahore, SMS (T-6)	04.07.2025 (Resigned)	Post of Scientist, at ICAR-National Academy of Agricultural Research Management (NAARM) at Hyderabad, Telangana	Appointment to the post Scientist, at, ICAR-National Academy of Agricultural Research Management (NAARM)
2.	Sh. Narendra Kumar Meena, SMS (T-6)	04.07.2025 (Resigned)	Post of Scientist, at ICAR-National Academy of Agricultural Research Management (NAARM) at Hyderabad, Telangana	Appointment to the post Scientist, at, ICAR-National Academy of Agricultural Research Management (NAARM)
3.	Dr. Sadvatha, R.H., Scientist	12.08.2025	Post of Scientist, at ICAR National Dairy Research Ins titute (NDRI), at Karnal Haryana	Own request
4.	Sh. Deepak Sharma, Assistant	18.08.2025	Post of Assistant at ICAR - Central Arid Zone Research Institute (CAZRI), Jodhpur, Rajasthan	Reallocation
5.	Sh. Gaurav Kumar Soni, LDC	25.08.2025	Post of Junior Transl ator (OL) at ICAR - Southern Regional Centre, Anthropological Survey of India, Mysore, Karnataka	On deputation basis

Staff Superannuated

Shri Dhanraj Wagadare
Senior Technical Officer (T-6)
DOS: 31.08.2025

Dr. Nita Khandekar
Principal Scientist
DOS: 30.09.2025

Shri P.V. Sahare
Upper Division Clerk
DOS: 30.09.2025


भा.कृ.अनु.प.- केन्द्रीय कृषि अभियांत्रिकी संस्थान
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हर कदम, हर डगर
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भारतीय कृषि अनुसंधान परिषद

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