

e-NEWSLETTER INDIAN SOCIETY OF AGRICULTURAL ENGINEERS

.... Connecting Engineers in Agriculture

March - April 2025



7000 + Members

36 Chapters

3 Scientific Publications

Published by
INDIAN SOCIETY OF AGRICULTURAL ENGINEERS

© ISAE reserves all rights to the information contained in this publication, which cannot be copied or reprinted by any means without permission of ISAE



Message From The President



My Dear Readers! After successful completion of election process for the term 2025-2028, new elected members took oath of office on 31st March 2025 and the first Executive committee meeting was held on the 10th April 2025. As per byelaws and rules of ISAE required number of members for executive committee (EC) were nominated. I hope the new EC will work with same or with better way to fulfil the expectations of the Agricultural fraternity in general and the ISAE members in particular.

Friends! A few important decisions such as approval MoUs with ProQuest and M/S Cyberlative, our website service provider, were approved, besides nominations of few members in EC and ISAE council. We are trying to have online award application/nomination module in place from this year. ProQuest is a database for indexing and marketing of journal contents. It is a part of Clarivate and thus may be beneficial for JAEI getting impact factor of Clarivate/web of Science in near future. You will be happy to note that the citations of papers published in JAEI from 2022 to 2024 is in increasing order and in 2024 it was more than 500, a record high in a year on google scholar. You will also be happy to note that the JAEI (January-March 2025 issue was published before schedule probably first time in its history. Through this e-newsletter I request all the members to cite more papers of JAEI in SCOPUS indexed journal, a requirement for SCOPUS indexing in future.

Dear Members!! The process of forming directorate/Department of Agricultural Engineering at least in 12 states is in progress. We are pursuing it from here, but request chapters and members to pursue cases in respective state at local level. I also attended meeting of Mumbai Chapter in this month and requested them to increase the activities of the chapter and pursue the case of formation of the Directorate. I personally as DDG Agricultural Engineering, ICAR wrote a letter to Maharashtra Government to include members from Agricultural Engineering fraternity in the committee. I thank Dr. Anap the chairman of the Mumbai chapter for donating Rs. 20000/- (Twenty thousand) only to Mumbai chapter. Similar gesture may be shown by other members of all chapters which will help in strengthening the respective chapters of the society. I am also happy to inform you that IIT Mandi has shown interest to open UG programme of Agricultural Engineering and we have provided helps in making the syllabus for having Smart Agriculture through education of Agricultural Engineering. ISAE has also been approached by the Krishi Jagaran for becoming knowledge partner in organizing a workshop/conference on mechanization through jugar technologies.

Dear ISAEians! The new Executive committee is putting all efforts in all fronts, including updating the records of all members for which most of you might be receiving mail from ISAE office. Request all of you kindly to help in updating mobile numbers and emails of each member who are not getting mail for the purpose. It will help ISAE to communicate with you and serve you better.

S N Jha
President, ISAE

From the Editor-in-Chief's Desk



It is pleasing to inform that the newly EC elected members of ISAE has taken the Oath and started working for betterment of the society and taking it to further new phase of its development and the 1st EC meeting has also been conducted. I hope the new EC will work with same or with further better way to fulfil the expectations of the Agricultural fraternity in general and the ISAE members in particular.

This newsletter is featured with glimpses of efforts made through activities and advancement in the field of Agriculture / Agricultural engineering conducted during this period of March. April 2025, I hope the content on various technologies through this e-newsletter will give takeaways on latest technologies to Agricultural Engineering professionals in introducing and implementing the same.

Your suggestions, feedback are also solicited for further improvement of this mouthpiece of ISAE.

Chandra Shekhar
Chief Editor



e-Newsletter Editorial Board



Chandra Shekhar

(Editor-in-Chief)

Astt. General Manager (Engg./IT)

National Seeds Corporation Ltd.

Beej Bhawan, Pusa Complex, New Delhi -110012

Email ID- iitkanpur.chandu@gmail.com



Contents

- 1** ISAE Happenings
- 2** ICAR-IARI Celebrates its 120th Foundation Day
- 3** World Water Day Celebration - 2025
- 4** Union Agriculture Minister Shri Shivraj Singh Chauhan's Brazil visit becomes important on many counts
- 5** Promotion of New Technologies in Agriculture
- 6** ICAR-CIPHET Ludhiana got first patent in PCT county/USA on process development for manufacturing protein isolate through microbial route from de-oiled cake
- 7** Agrinnovate India Limited Pays Dividend of Rs.1.42 crore for FY 2023–24
- 8** Center Pivot Irrigation System Installed in UP
- 9** CSIR-CMERI launches E-tractor, E-tiller technology to promote sustainable agriculture education
- 10** Prof. Dr. G.S. Vijaya Raghavan, awarded King Charles III Coronation Medal
- 11** Obituary
- 12** New members

ISAE Happenings

7th ISAE Council meeting held on 07.03.2025 at ISAE HQ

The ISAE Council meeting was called on 07.03.2025 physically on request of many council members in its last Executive committee meeting at the ISAE HQ, New Delhi at 11.00 AM. The presence of members was less, so the meeting was adjourned for half an hour in a hope that some more members may join. The meeting was again called at 11.30 AM in which 11 members were present:

The secretary General welcomed all the members on the ISAE Council meeting and briefed about the activities after the last council meeting held at VNMKV, Parbhani. He also expressed his sincere thanks to all the council and executive committee members for their direct and indirect contributions to make the ISAE vibrant and more productive. Since it was the last meeting of the present ISAE council, the President, ISAE expressed his satisfaction on the progress made by the present ISAE Council and EC expects that new ISAE Council will continue to work on some of the initiatives taken by the present council with more energy. He appreciated the contributions made by all the members of the council. After brief address of the President ISAE, the following points were discussed and decided unanimously.

1. The council appreciated the central election committee for conducting ISAE general election in time bound manner smoothly and decided that an appreciation letter from ISAE should be issued to each member of the CEC. The council also decided to have oath taking ceremony for the elected members on the 31st March 2025 and oath will be given by the Chairman, Central Election Committee.

2-It was informed that details statement of fund received, expenditure incurred, number of registered delegates, refunds of saving from last ISAE annual convention hosted by VNMKV Parbhani is yet to be received. It was suggested that a letter may be issued in light of MoU signed by the organizer with a copy to University authority from ISAE HQ for early settlement of the account and transfer of Rs.5.0 lakhs to ISAE HQ as per the MoA.

At the last all the members expressed their gratitude to ISAE and appreciated the efforts made by all office bearers for the society. Conveyed their best wishes to the newly elected ISAE council members.



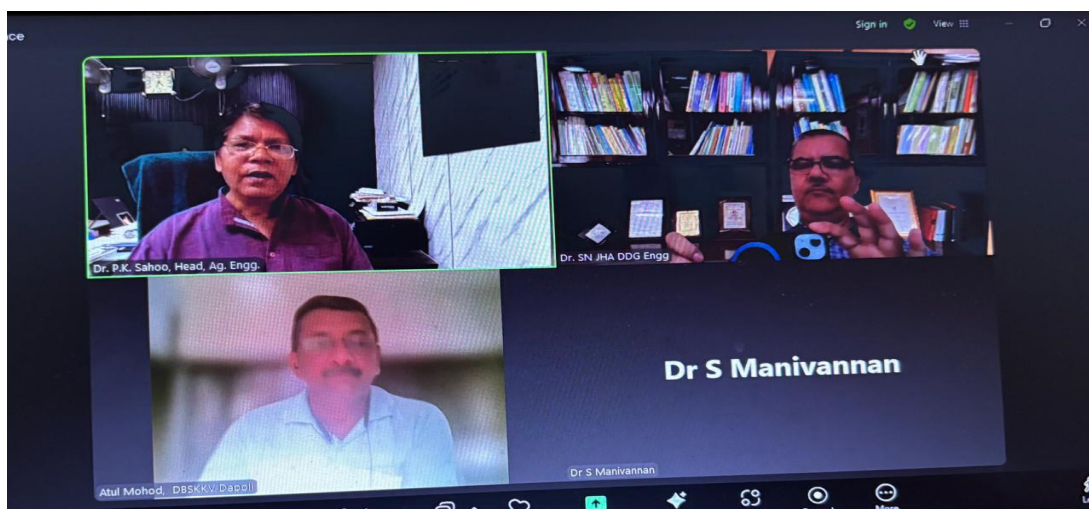
ISAE Happenings

ISAE council members Oath taking ceremony

The Oath taking ceremony of Newly elected ISAE council members was held on 31st March on online mode. Present ISAE council members and executive committee members were also invited to join and congratulate them. The Oath was given by Dr. Chandra as Chairman central election committee.

The 1st ISAE Executive Committee meeting was held on 10.04.2025

The 1st newly elected Executive committee members meeting was held on 10.04.2025 in online mode.



ISAE Signs MoU with ProQuest

The Indian Society of Agricultural Engineers (ISAE) is pleased to announce the signing of a Memorandum of Understanding (MoU) with ProQuest, a renowned global information-content and technology company. This collaboration aims to enhance the visibility, accessibility, and global reach of ISAE's research publications and scientific outputs.



Through this MoU, ISAE's publications will be indexed and made available to a wider academic audience via ProQuest's extensive research databases, supporting the advancement of agricultural engineering knowledge and innovation worldwide.

ISAE Happenings

Explore the Future of Agricultural Engineering – Education & Applications

For better understanding of students who are interested in about the future of Agricultural Engineering, ISAE has prepared a short video.

The readers may check out the video “Agricultural Engineering: Education & Applications” to discover the exciting opportunities, real-world applications, and career paths in this evolving field. From smart farming technologies to sustainable agriculture solutions, this video provides valuable insights into how Agricultural Engineers are shaping the future of food and the environment.

Link for video – <https://isae.in/2025/04/05/explore-the-future-of-agricultural-engineering-education-applications/>

Whether you’re planning your career or just exploring your options, this video is a must-watch for all aspiring engineers of tomorrow.

Punjab Chapter of ISAE organised session on “Career opportunities in agriculture and allied sector” at PM Shree Navodaya Vidyalaya Ludhiana

On 01 March 2025, the Punjab Chapter of ISAE organized an interactive session on career counselling for students of PM Shree Navodaya Vidyalaya Ludhiana PO Dhanansu, Pincode-141112. While speaking on the topic entitled “Career opportunities in agriculture and allied sector” Dr. sandeep Mann Vice Chairman Punjab Chapter ISAE & Head AS&EC ICAR-CIPHET Ludhiana explained to the students about admission process of various agricultural courses offered by different agricultural universities. During the session, he also highlighted the significance of the Agricultural Engineering profession, scope of agricultural engineers in advancing the present farming systems. The principal of School Mrs. Nishi Goyal and other senior staff also graced the occasion with their presence. The session was concluded with addressing the doubts of students.



ISAE Happenings

National Seminar on "Advanced Technologies to Enhance Productivity and Sustainability in Agriculture"

A Two Days' National Seminar was organized by the Department of Agricultural Engineering, Institute of Agricultural Science (IAS), BHU in collaboration with Varanasi Chapter of ISAE during 10th and 11th February 2025. It was inaugurated on 10th February 2025 by Prof. Panjab Singh as Chief Guest. He has emphasized the need of increased agricultural production with the global demand. Dr. Singh in his remarks said that the food should be accessible to everyone rather than excisable. He has emphasized the need to reduce around 30% of loss in food production chain. He insisted that the production per unit input must be maximized. Prof. Amit Patra, Director IIT-BHU was a guest of honour and he has suggested the Agriculturist and Engineers must work together to build agriculture business models. Prof. M.L. Gaur, Vice-Chancellor, Dr.CV Raman University, has emphasized the need to strengthen the farmers with the application of machine learning, IoT and drone technology. Prof. U.P. Singh, Director, I.Ag.Sc. urged the scientific community to conduct the research on agricultural sustainability. Prof. V.K. Chandola Convenor, briefed the gathering about of the national seminar. Prof. B.N. Rai Chairman IE(I) Varanasi Centre, explained about the activities of Institution of Engineers Varanasi Centre, Prof. R.M. Singh, Chairman ISAE, described the activities of Indian Society of Agricultural Engineers Varanasi Chapter. The inaugural function was concluded with vote of thank by Dr. Shrinivasa D.J. as Organizing Secretary. The seminar covered a wide range of topics critical to the future of agriculture. The event brought together leading experts, researchers, and practitioners from across the nation to discuss cutting-edge innovations and strategies for enhancing agricultural productivity and sustainability. The valedictory ceremony was graced by the esteemed presence of Prof. S. N. Upadhyay, former Director of IIT BHU, and Prof. Ramesh Chand, Former Director of the Institute of Agricultural Sciences, BHU. The ceremony was convened by Dr. V.K. Tripathi as Joint Organizing Secretary. All the members of ISAE Varanasi chapter attended the seminar.



ICAR-IARI Celebrates its 120th Foundation Day

ICAR-Indian Agricultural Research Institute, New Delhi, celebrated its 120th Foundation Day with a grand fervor and resolution, highlighting its remarkable contributions to Indian agriculture since its establishment in 1905. The event was graced by distinguished dignitaries, eminent scientists, farmers and students, reflecting on the institute's legacy of research, innovation, and sustainable agricultural advancements.



The Chief Guest, Prof. Ramesh Chand, Member, NITI Aayog, Government of India delivered foundation day lecture. In his address, Prof. Chand offered valuable insights into the evolving landscape of Indian agriculture and outlined key policy imperatives for the future. He commended IARI's historical contributions to agriculture, particularly its pivotal role in the Green Revolution. Emphasizing the need to tailor policies to state-specific agricultural conditions, Prof. Chand pointed out that market distortions hinder growth and diversification. He advocated for aligning production with demand, enhancing efficiency through innovation, and tapping into alternative demand sources such as processing, exports, and the bioeconomy. Prof. Chand also proposed that ICAR-IARI could lead the way in the future by embracing the concept of a "Bio-Revolution," integrating biotechnology with the Green Revolution.

The Guest of Honor, Dr. D.K. Yadava, Deputy Director General (Crop Science), lauded the institute's pioneering contributions in agricultural research and its impact on the farming community and national development. He said that ICAR-IARI plays a crucial role in the national agriculture research system, and its contributions to crop science have had significant impacts. He also outlined the high priority areas for ICAR-IARI research, education, extension besides the recent budget highlights of agriculture sector.

Dr. Ch. Srinivasa Rao, Director & Vice-Chancellor, ICAR-IARI, emphasized the role of public-private partnerships, technology development, and environmental sustainability. In his address, Dr. Srinivasa Rao highlighted the historic significance of the 120th Foundation Day, acknowledging the contributions of ICAR-IARI in shaping the future of Indian agriculture. He also emphasized the institute's pivotal role in advancing food security, nutrition, and poverty alleviation, and reaffirmed the institute's commitment to innovation and excellence.

A detailed presentation followed, showcasing ICAR-IARI's achievements over the past 120 years, including significant advancements in crop science, sustainable agriculture, and food security initiatives.

The event also featured the release of several publications, acknowledging the contributions of researchers and scholars at ICAR-IARI. The event concluded with a vote of thanks delivered by Dr. R.N. Padaria, Joint Director (Extension), ICAR-IARI.

(Source: ICAR-Indian Agricultural Research Institute, New Delhi)

World Water Day Celebration - 2025

World Water Day, held on 22 March every year since 1993, is an annual United Nations Observance focusing on the importance of freshwater. World Water Day celebrates water and raises awareness of the 2.2 billion people living without access to safe water. It is about taking action to tackle the global water crisis. A core focus of World Water Day is to support the achievement of Sustainable Development Goal 6: water and sanitation for all by 2030.

Every year, UN-Water — the UN's coordination mechanism on water and sanitation — sets the theme for World Water Day. **In 2025, the theme is Glacier Preservation**

WTC, ICAR-IARI Celebrates World Water Day

Water Technology Centre (WTC), ICAR-Indian Agricultural Research Institute (IARI), New Delhi organized World Water Day Programme on Central Theme i.e. 'Glacier Preservation' on 22.03.2025 (4PM to 5.30 PM). The main objectives of the Programme are (a) Analyzing the present status of glaciers in India and other nations in the backdrop of climate change and (b) Devising integrated action plan for sustainable and climate resilient water management for ensuring water and food security. The expected outcome of this programme in the form of technological and policy options for glacier preservation and sustainable and climate resilient water management in agricultural sector will aid in achieving the targets under Sustainable Development Goal (SDG) 6 of the United Nations (Ensure availability and sustainable management of water and sanitation for all) and SDG 13 (Climate Action). This occasion was graced by Dr. A.K. Singh, Formerly DDG (NRM), ICAR and Vice Chancellor, RVSKVV, Gwalior as Chief Guest. Dr. T.K. Behera, Director, ICAR-IIHR, Bengaluru graced as Guest of Honour. Dr. C. Viswanathan, Joint Director (Research), IARI Dr. R.N. Padaria, Joint Director (Extension), IARI Dr. P.S. Brahmanand, Project Director, WTC, IARI were also present during this event.

Chief Guest Dr. A.K. Singh explained about the impact of higher rate of glacier melting on sea water level rise and urgent need to practice climate resilient water management practices. He also stressed on the advanced technologies for efficient and sustainable utilization of groundwater resources in coastal and inland areas, enhancing area under micro irrigation and water quality management.



Guest of Honour Dr. Behera mentioned that the water use efficient practices like drip fertigation and mulching need to be practiced in water scarce areas of India and priority should be given to crop diversification with low water requiring pulse, oil seed and horticultural crops.

Dr. Brahmanand gave brief presentation on the current status of glaciers in different countries with special focus on melting rate of Himalayan Glaciers in the backdrop of climate change and measures for glacier preservation. He informed the house that the number of glaciers in the Indian Himalayas is about 9,575 as per the report of The Geological Survey of India and some glaciers, like Chuma and Onglaktang, have retreated at rates of 3.9 and 4.3 meters per year, respectively, from 1988 to 2018.

Dr. Viswanathan emphasized on the need for enhancing per capita storage of India through creation or renovation of higher number of rain water harvesting structures and public awareness campaigns on rainwater conservation and water use efficient practices in irrigated commands.

Dr. Padaria briefed the house about importance of participatory water resource development and renovation and management of rainwater harvesting structures through community engagement models. The second Issue of Hindi Magazine 'Jal Suraksha' (Chief Editor : Dr. A.K. Mishra, Principal Scientist, WTC) published by Water Technology Centre, ICAR-IARI was released by the Chief Guest and Guests of Honour on this occasion. Overall, about 100 delegates comprising of researchers, academicians, staff and students of ICAR-IARI, ICARNBPGR, International Water Management Institute and other institutes located in New Delhi and CSKHPKV, Palampur have actively participated in this programme. Dr. Vijay Kumar Prajapati, Scientist, WTC coordinated this programme.

Source: ICAR-Indian Agricultural Research Institute, New Delhi

ISAE Telangana Chapter Organized a High-Profile Conference on World Water Day

ISAE Telangana Chapter organized a high-profile conference in Telangana's Water Management at Shloka Convention, Kongarakalan on the occasion of World water Day.

The event witnessed the participation of eminent national and international scientist, water experts and key govt. officials reflecting the critical nature of the discussion.





Invitation

Malaxmi

The Indian Society of Agricultural Engineers
Telangana Chapter

Cordially invite you to participate in
Presentations & Discussions on

"Appraisal of Water Resources
Management - Telangana"

On the occasion of

WORLD WATER DAY

On Saturday 22nd March 2025, evening 6.00 p.m.
at PSR Shloka Convention,
Kongarakalan, ORR exit 13.

Chief Guest :

Sri M. Kodanda Reddy Garu

Hon'ble Chairman, Telangana Agriculture &
Farmers Welfare Commission,

Guest of Honor :

Dr. G. Chinna Reddy Garu

Hon'ble Vice-Chairman, Telangana State Planning Board

Special Guests :

Sri Nellikanti Sathyam Garu, Hon'ble MLC
Padmasree Chintala Venkat Reddy Garu

Guest Speakers :

Dr. K. Yella Reddy Garu, V.P. & Chairman, (C-events), ICID
P.R.B. Sunder Rao, Water Management Consultant
Dr. G.V. Ramanjaneyulu, CEO, CSA
Dr. K.V. Rao, Principal Scientist, CRIDA, ICAR



Water: The Lifeline of the Future – Experts Call for Sustainable Management

DECCAN NEWS SERVICE
HYDERABAD

In a compelling discourse on the urgent need for water conservation, the Indian Society of Agricultural Engineers, Telangana Chapter, organised a high-profile conference on Telangana's Water Resources & Water Management at Shloka Convention, Kongarakalan on Saturday on the occasion of World Water Day

The event witnessed the participation of eminent national and international scientists, water management experts, and key government officials, reflecting the critical nature of the discussions.

Dr G. Chinna Reddy, Vice Chairman of the Telangana State Planning Commission, underlined the stark reality of depleting water resources, stating that water conservation is not merely a choice but an absolute necessity for the survival of future generations. He stressed that proactive policy changes, community partici-

pation, and innovative irrigation techniques are vital in addressing the impending water crisis. He further highlighted the role of sustainable agriculture, rainwater harvesting, and groundwater recharge as indispensable strategies in securing Telangana's water future.

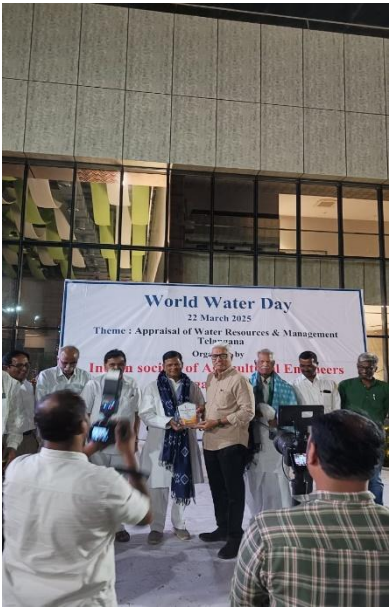
M. Kodanda Reddy, Chairman of the State Commission for Agriculture and Farmers' Welfare, echoed similar concerns, urging the adoption of efficient irrigation systems to ensure optimal use of available resources. He called upon policymakers to integrate modern water conservation technologies with traditional wisdom to create a robust framework for water management.

Distinguished personalities such as MLC Nellikanti Satyam, former MLA Palla Venkat Reddy, Padma Shri awardee and progressive farmer Chintala Venkat Reddy, international water management expert Dr K. Ellareddy, and national expert P.R.B. Sundar Rao also shared their

insights. They collectively underscored the need for responsible water usage, reinforcing that without a concrete strategy for conservation, the state's agricultural and drinking water needs would face severe challenges in the coming decades.

Speakers at the conference highlighted that reckless water consumption could lead to irreversible damage, urging citizens to adopt a judicious approach in their daily usage. They advocated for a well-structured policy on water distribution, irrigation efficiency, and conservation methodologies, which would ensure long-term sustainability.

The discussions concluded with a resounding appeal for the government and the public to work hand in hand to implement necessary reforms in water governance. The conference served as a crucial reminder that water is not merely a resource but the very foundation of life, demanding immediate and sustained action for its protection.



Union Agriculture Minister Shri Shivraj Singh Chauhan's Brazil visit becomes important on many counts

Union Agriculture & Farmers' Welfare and Rural Development Minister Shri Shivraj Singh Chouhan made a visit to Brazil, this visit is important on many counts. Besides leading the Indian delegation at the 15th BRICS Agriculture Ministers' Meeting, the Union Minister's visit is an important step towards strengthening agricultural trade, technology and innovation between India and Brazil. During Brazil visit, the Union Minister stressed on promoting production and export of soya in India. He intends to upgrade Indian farmers by enabling them the benefits of global technologies. He said that joint efforts of various countries will strengthen global food security.



During his Brazil visit, Union Minister Shri Shivraj Singh mainly expressed his concerns related to small farmers of India. He said that unless the small farmers are protected and empowered, the goal of global food security will remain incomplete. The Union Minister said that India is fully committed to inclusive, equitable and sustainable agriculture. Echoing the spirit of “Vasudhaiva Kutumbakam”, he said that India always follow the message of trust and cooperation with all countries. He called for enhanced cooperation in agricultural technology, innovation, capacity building and trade facilitation so that farmers and agricultural enterprises of various countries can benefit. On the BRICS platform, India called for further strengthening cooperation in agricultural technology transfer, research, food processing and trade. Shri Chauhan's address, on behalf of India, focused on global food security, empowerment of small farmers, agricultural innovation and technological cooperation and advancing partnership with BRICS countries.

Altogether, Shri Chouhan's visit to Brazil is not just a diplomatic but also a concrete initiative towards technological innovation, production increase and global partnership for Indian agriculture, which can yield direct benefits to the farmers.

The 15th BRICS Agriculture Ministers' Meeting, held in Brasilia, was attended by Agriculture Ministers/Senior Officials from India, host Brazil and BRICS member countries including Russia, China, South Africa, Saudi Arabia, Egypt, UAE, Ethiopia, Indonesia and Iran. The main theme of the meeting was “Promoting inclusive and sustainable agriculture through cooperation, innovation and equitable trade among BRICS countries”.

Besides participating in the 15th BRICS Agriculture Ministers' meeting, Shri Chouhan's visit is expected to give a new direction to agricultural cooperation between India and Brazil. This will boost agricultural trade between the two countries. The Union Minister expressed his desire to share knowledge with Brazil on climate-friendly soyabean varieties, mechanization, precision farming and sustainable agricultural practices. He also expressed his desire to learn from Brazil's agricultural model, mechanization, irrigation and research and implement it in Indian agriculture so that maximum benefits can be transferred to the farmers.

Union Agriculture Minister Shri Shivraj Singh Chauhan's Brazil visit becomes important on many counts

Cooperation in the areas of biofuel, bioenergy, supply chain integration and agricultural machinery was discussed during the meetings which would enable Indian farmers to have access to global technology. Joint efforts of the two countries will also strengthen global food security as Brazil has achieved tremendous growth in agricultural exports in the last 50 years, an inspiration for India as well.

Shri Shivraj Singh Chouhan also held bilateral meetings with Brazil's Minister of Agriculture and Livestock, Carlos Henrique Baquetta Favero and Minister of Agricultural Development and Family Agriculture, Luiz Paulo Teixeira. During these meetings, the issues of enhancing cooperation in the areas of agriculture, agro-technology, rural development and food security were discussed. The Union Minister also met 27 members of Brazil's agribusiness community at Sao Paulo. During this meeting, possibilities of cooperation on agricultural trade, production technology, food processing, biofuel, technological innovation and supply chain integration were discussed.

Union Minister Shri Chouhan visited soyabean production plant, tomato farm and other institutes in Brazil and closely observed the latest technologies related to mechanization, irrigation and food processing. Currently India imports soyabean oil, but now both the countries are jointly exploring the possibilities of investing and setting up technology and plants for soyabean production and processing. This can boost soyabean production and export in India. Shri Chouhan said that there is a plan to work together with Brazil to increase soybean production and processing in India. Besides, possibilities of cooperation between the two countries in mechanization and seed research will also be explored.

Union Minister Shri Shivraj Singh Chouhan's routine of planting a sapling every day continued in Brazil as well. He participated in the tree plantation drive at the Indian Embassy in Brasilia under the initiative 'Ek Ped Maa Ke Naam', promoting environmental protection and respect for motherhood. Shri Shivraj Singh also met the Indian diaspora at Sao Paulo in Brazil and appreciated their role in bilateral relations. He said that this is the Amrit Kaal of our independence under the leadership of Prime Minister Shri Narendra Modi. In 2047, we will complete 100 years of independence and our goal is to make India a developed nation by then.

Union Minister Shri Shivraj Singh said, "During my stay in Brazil, I got the opportunities to enrich myself with various experiences and techniques. We will utilize these technologies to increase production in India. I am confident that the mutual cooperation between India and Brazil will empower our farmers and give a new direction to global food security."

This visit is an important step towards India-Brazil agricultural cooperation, partnership with BRICS countries and accelerating innovation and sustainable growth in Indian agriculture, Shri Singh added.





Promotion of New Technologies in Agriculture

The Sub-Mission on Agricultural Mechanization' (SMAM), one of the Centrally Sponsored components of the Rashtriya Krishi Vikas Yojana (RKVY) is implemented through the State Governments. Under SMAM, financial assistance is provided to the farmers for purchase of various agricultural machines and equipments including the post-harvest and processing technologies on individual ownership basis. Financial assistance is also provided for establishment of Custom Hiring Centres (CHCs) and Village Level Farm Machinery Banks (FMBs) in order to provide machines and equipments to the farmers on rental basis as per their requirements. Financial assistance under SMAM is also provided for demonstration of kisan drones on farmers' fields, purchase of drones by the farmers on individual ownership basis and establishment of Custom Hiring Centres of Kisan drones for providing services of drones to farmers for agriculture purpose.

The Government has approved Central Sector Scheme 'NAMO DRONE DIDI' for providing 15,000 Drones to the Women Self Help Groups (SHGs), during the period of 3 years (2023-24 to 2025-26) with a view to provide sustainable business and livelihood support to them. Lead Fertilizer Companies (LFCs) have distributed 1094 drones to drone didis of SHGs in 2023-24 using their internal resources. Out of these 1094 drone distributed to drone didis, 500 drones have been distributed under the Namo Drone Didi Scheme. The remaining 14500 drones under the scheme has been targeted to be distributed by the end of financial year 2025-26.

The Government has approved the Digital Agriculture Mission in September 2024 with an outlay of Rs. 2817 Crore. The Mission seeks to enable a robust digital agriculture ecosystem in the country for driving innovative farmer-centric digital solutions and making available timely and reliable crop-related information to all the farmers in the country. The Mission envisages the creation of Digital Public Infrastructure for Agriculture such as Agristack, Krishi Decision Support System, Comprehensive Soil Fertility & Profile Map and other IT initiatives undertaken by Central/State Governments. 'Kisan e-Mitra' an Artificial Intelligence (AI) powered chatbot has been developed to assist farmers with responses to queries about the PM Kisan Samman Nidhi Scheme

The Institutes under the Indian Council of Agricultural Research (ICAR) are conducting research on drone spraying systems and droplet deposition characteristics with the objectives of enhancing the efficiency and effectiveness of pesticide and liquid fertilizer applications. An AI enabled mobile device has been developed for real time identification of abiotic stress in field crops, which assist crop breeding and precision crop input management. The institutes have also developed different precision farming technologies such as Smart sprayer for pomegranate young orchards, Automatic Spraying System for Polyhouse, Lab based robotic transplanter for plug-type vegetable seedlings, Unmanned multi-purpose track-type vehicle, Autonomous weeder for wide spaced field crops, Robotic harvester for poly-house cultivated tomatoes, Image based automatic hand held diseases identification device for soybean by application of deep learning, Image based variable-rate nitrogen applicator, Controller based feed dispensing system for poultry, Water Stress Indices using Spectral Reflectance and Thermal Imaging in Field Crops, Deep placement fertilizer applicator as an attachment to rice transplanter etc.



Soil Health & Fertility Scheme is implemented by the Government since 2014-2015, wherein Soil Health Cards (SHCs) are issued to farmers to improve the health of the soil. SHCs encourage judicious use of fertilizer, secondary micronutrients along with organic manures & bio-fertilizers. Soil samples are processed through standard procedures and analyzed for 12 parameters viz. pH, electrical conductivity, Organic Carbon, available Nitrogen, Phosphorus, Potassium, Sulphur, and micronutrients (Zinc, Copper, Iron, Manganese & Boron). SHCs provide information on nutrient status of soil and recommendations on appropriate dosage & type of fertilizers for improving soil health and its fertility. Since 2014-15 and as on 31 March 2025, 24.90 Crore SHCs have been generated across the country. Under the scheme, 1068 Static Soil Testing Laboratories, 163 Mobile Soil Testing Laboratories, 6376 Mini Soil Testing Laboratories and 665 Village Level Soil Testing Laboratories have been established across the country. To educate farmers, around 7.0 lakh demonstrations, 93781 farmer's training programmes and 7425 farmer's mela have been organized across the country. In addition, 70002 Krishi Sakhis are trained to support farmers in understanding SHCs.

Source - <https://pib.gov.in/PressReleasePage.aspx?PRID=2118770>

ICAR-CIPHET Ludhiana got first patent in PCT county/USA on process development for manufacturing protein isolate through microbial route from de-oiled cake

Ludhiana, March 22, 2025: Oilseed cakes, traditionally considered a by-product of oil extraction, are inherently rich in nutrients. Recognizing this untapped potential, ICAR-CIPHET, Ludhiana, has developed an innovative microbial technology to convert these oilseed cakes into high-quality protein isolates/concentrates suitable for food applications and Gaurav W. Bagekar Central Biotech Pvt. Ltd., Nagpur approached ICAR-CIPHET for this technology. Research team comprises of Dr. D.N. Yadav, Dr. Sangita Bansal, Dr. Surya, Dr. Swati Sethi, Dr. R.K. Singh, Dr. S.N. Jha and Dr Suman Kapila. Dr. Ranjeet Singh, Head ToT and I/c ITMU facilitated this activity. Dr. Nachiket Kotwaliwale, Director, ICAR- CIPHET, awarded the licensing agreement and certificate upon successful completion of training and assured the licensee of continued support for establishing and scaling up the venture.



Agrinnovate India Limited Pays Dividend of Rs.1.42 crore for FY 2023–24 to ICAR

Agrinnovate India Limited (AgIn), a Government of India enterprise under the Department of Agricultural Research and Education (DARE), Ministry of Agriculture and Farmers Welfare, has declared a dividend of Rs.1,42,23,513 for the financial year 2023–24. The dividend distribution complies with guidelines issued by the Department of Investment and Public Asset Management (DIPAM). This is the first time the AgIn has paid the dividend since its inception.

The dividend cheque was formally presented to Union Minister for Agriculture and Farmers' Welfare Shri Shivraj Singh Chouhan in New Delhi today. The event was also graced by the presence of Secretary, Department of Agriculture & Farmers' Welfare Dr. Devesh Chaturvedi and Director General, Indian Council of Agricultural Research (ICAR) Dr. M.L. Jat. This announcement reflects AgIn's continued financial strength and strategic vision, under the leadership of Dr. Praveen Malik, Chief Executive Officer, Agrinnovate India Ltd.

Established in 2011, Agrinnovate India Ltd. serves as the commercial arm of ICAR, bridging agricultural research and practical implementation. AgIn plays a pivotal role in transferring, valorizing, and scaling agri-technologies across India to benefit farmers and entrepreneurs. The dividend declaration underscores AgIn's commitment to financial sustainability, institutional accountability, and its broader mission of advancing India's agricultural innovation ecosystem.



Center Pivot Irrigation System Installed in UP

Centre pivot irrigation system of 30 ha size installed in Rangoli Village Jalaun Distt. UP. This the 1st Centre pivot system to be installed in Uttar Pradesh State in farmer's field by the Horticulture deptt. , Govt of UP. By this irrigation system 26 farmers will get benefitted. The system is proven technique for water saving and improving the irrigation efficiency.

This the first of its kind of community irrigation system using center pivot system (large system) in India.



CSIR-CMERI launches E-tractor, E-tiller technology to promote sustainable agriculture education

CSIR-CMERI has unveiled its latest sustainable agricultural technologies—the E-tractor and E-tiller—to demonstrate the growing importance of integrating clean energy solutions and modern technology in agricultural education. The event, focused on transforming agriculture through innovation and sustainability, was held in Ludhiana.

The demonstration, organised by the Council of Scientific & Industrial Research – Central Mechanical Engineering Research Institute (CSIR-CMERI) in Durgapur, West Bengal, aimed to showcase cutting-edge electric farming solutions that are poised to transform traditional agriculture. Designed primarily for small and marginal farmers, these technologies are noted for their low vibration, ease of maintenance, user-friendly ergonomics—especially for women—and their zero-emission advantage. The event forms part of a broader initiative to reaffirm India's commitment to green energy and sustainable practices in farming.

The event was attended by Prof Adarsh Pal Vij, chairman, Punjab Pollution Control Board, who was the chief guest, along with Nachiket Kotwaliwale, director, ICAR-CIPHET, Ludhiana, and Manjeet Singh, dean, College of Agricultural Engineering, Punjab Agricultural University. Naresh Chandra Murmu, director, CSIR-CMERI, hosted the event, followed by a launch event initiated by Jitendra Singh, Union Minister of Science and Technology and Earth Sciences, held on National Science Day at Vigyan Bhawan, New Delhi.



Prof Adarsh Pal Vij said, “This agricultural revolution is opening new avenues for farmers to connect with industry and adopt modern, sustainable practices. As we look to the future, embracing sustainability is essential, and electric vehicles mark a significant step in reducing air pollution and transforming agricultural operations. With technological advancements happening every day, it becomes our collective responsibility to ensure their optimum use. Unscientific disposal of batteries must be avoided, and proper knowledge is crucial for safe waste management. While our scientists are working on effective disposal methods, collaborative action from all stakeholders is equally important to ensure long-term environmental well-being.”

Naresh Chandra Murmu said, “The E-tractor and E-tiller represent a significant leap towards sustainable agriculture and the broader electrification of conventional farm technologies. These electric machines are not only environmentally friendly but are also engineered to match the capabilities of traditional diesel-powered tractors. Our aim is not just to showcase innovation but to drive a shift toward cleaner, cost-effective, and high-performance solutions that support farmers and promote sustainable agricultural practices across the country.”

Nachiket Kotwaliwale said, “The technologies developed by CSIR-CMERI hold great promise for transforming Indian agriculture. We encourage feedback from farmers and industry to help our scientists develop innovations that are practical and impactful, as they are committed to supporting and working with you every step of the way.”

Manjeet Singh emphasised the future impact of these innovations, saying, “Innovations like electric farm machinery are reshaping the future of agriculture with cleaner, smarter solutions. We must pair these advancements with awareness and responsibility to ensure their long-term impact and sustainability.”

Educational impact

The demonstration of these electric farm machines is not only a technological feat but also a significant educational opportunity. By integrating sustainable practices with advanced engineering, CSIR-CMERI's initiative provides a live case study for students, researchers, and professionals in engineering and agriculture alike. The event featured interactive sessions with scientists and agricultural experts, live demonstrations of the machinery in action, and stakeholder engagements, all of which are poised to inspire future academic curricula centered on sustainable innovation.

At its core, this educational drive highlighted the importance of multidisciplinary learning—combining engineering, environmental science, and agricultural practices—to shape a future where technology and sustainability go hand in hand. This fusion of modern technology with traditional sectors served as a blueprint for integrating new methodologies into educational frameworks, ensuring that tomorrow's professionals are well-equipped to tackle global challenges.

By actively engaging various stakeholders, including farmers, MSMEs, manufacturers, and agri-tech companies, CSIR-CMERI is fostering an environment where technology education directly translates into practical, sustainable outcomes, paving the way for a greener and more resilient agricultural ecosystem.

Source : <https://www.educationtimes.com/article/newsroom/99738075/tech-news-csir-cmeri-launches-e-tractor-e-tiller-technology-to-promote-sustainable-agriculture-education>



Prof. Dr. G.S. Vijaya Raghavan, awarded King Charles III Coronation Medal



Prof. Dr. G.S. Vijaya Raghavan,
ISAE Fellow

Prof. Dr. G.S. Vijaya Raghavan, ISAE Fellow (LM No. 10749 / F 225) - awarded King Charles III Coronation Medal Prof. Dr. G.S. Vijaya Raghavan, Distinguished James McGill Professor and Graduate Program Director, Bioresource Engineering Department, McGill University, Macdonald Campus, Ste-Anne-de-Bellevue, Quebec, Canada, has been awarded the King Charles III Coronation Medal. This award is created by the Sovereign and administrated by the Chancellery of Honours.

This award is given to Prof. Raghavan in recognition of his exceptional and sustained contributions to the mission and goals of the Royal Society of Canada. He was presented the award on 27 March 2025 in a presentation ceremony held at Ottawa, Canada.



Obituary



Dr H S Chauhan- The first generation renowned Agricultural Engineer, mentor of teachers of our teachers and true well wisher of Agricultural Engineering profession left this world on April 7, 2025.

Dr Chauhan was born in Balrampur of Uttar Pradesh on 17 November 1936. He was third batch graduate (Agri Engineering, 1954- 58) from IIT Kharagpur. He did M.Tech in SWCE from IIT Kharagpur in 1959 and PhD from Ohio State University, USA in 1967.

He was Professor (1969-96) and Prof.-cum-Head Agri.Engg. (1971-80), Dean, College of Technology, (1980-84) including additional charge of Pro Vice-Chancellor, Professor & Head Irrigation and Drainage Engg. (1984-87) and Dean College of Post Graduate Studies (1987- 90) of College of Technology, G.B. Pant Univ. of Agri. & Tech. He was Member, Land Reclamation and Drainage team to Iraq, (1974-75).

He was recipient of 1975-76; ICAR Rafi Ahmed Kidwai Award (1975-76), ISAE Award for Education (1986); G.B.Pant Memorial Gold Medal (1993) ISAE Gold Medal (1995) ; ISAE Lifetime Work Award (1999); ISAE Mason Vaugh Agricultural Engineering Pioneer Award, (2018). He was a fellow of the National Academy of Agriculture Sciences Indian National Academy of Engineering; Indian Society of Agricultural Engineers; Institution of Engineers (India).

He was the one who was always available for the cause of Agricultural Engineering and Agricultural Engineers. When, in 1993 the SWCE was removed from ARS and we were struggling to get it restored, Dr H S Chauhan and Dr A M Michael were the first to write letters to all concerned who were involved in making decisions. I have preserved the copy of the letters written by them. The Agriculture Engineering profession has lost a true well wisher.

Heartfelt condolences. May the departed Soul rest in peace.

New Members

Life Members

Membership No.	Name
LM-14155	Dr. Geeta Kumari
LM-14156	Er. Almas Begum Adoni
LM-14157	Dr. Mukul Kumar Dubey
LM-14158	Er. Divyaprabha V
LM-14159	Er. Bivek Chakma
LM-14160	Er. Mayank Maurya
LM-14161	Dr. Gagandeep Kaur
LM-14162	Er. Anupam Sahoo
LM-14163	Er. Mrunalini Humbare
LM-14164	Dr. Madhuresh Dwivedi

Annual Members

Membership No.	Name
AM-7027	Er. Rohan Shaji Thomas
AM-7028	Dr. Jaskirandeep Kaur
AM-7029	Er. Vishwanath K.

Institutional Members

Membership No.	Member Name
IM-39	NITFM, Thanjavur
IM-40	OUAT, Bhubaneswar
IM-41	NIRJULI, Arunachal Pradesh

New Members

Student Members

Membership No.	Name
SM-7260	Inti Manasa
SM-7261	Girija K.
SM-7262	Swathika G.
SM-7263	N. Nivasri
SM-7264	Anushya
SM-7265	Praveena S.
SM-7266	Tamil Selvan.V
SM-7267	P. Krishnan
SM-7268	Lakshya Shree Kumaresan
SM-7269	Naveen
SM-7270	Parasuram Hamresh
SM-7271	N. M. Ishitha
SM-7272	Sudharsan R.
SM-7273	Saravana Kumar T. S.
SM-7274	Amsaveni T.
SM-7275	P. Kirupa
SM-7276	C. Lokkiya
SM-7277	C. Mythili
SM-7278	R. T. Vivega
SM-7279	M. Saranya
SM-7280	S. K. Kayathri
SM-7281	Leela S.
SM-7282	G. Sathya
SM-7283	Monika Devi S.
SM-7284	Varshaini V. R.
SM-7285	Rajesh C.
SM-7286	Padmanathan B.
SM-7287	Saravanan B.
SM-7288	Kishor V.
SM-7289	Sivamurugan
SM-7290	Muniasamy
SM-7291	Subiksha
SM-7292	Abinaya S.
SM-7293	Deepa M.
SM-7294	Sherin Rose
SM-7295	Katam Reddy Varshitha
SM-7296	Ravichandiran C.
SM-7297	Jabbala Suji
SM-7298	Kishore S

New Members

Student Members

Membership No.	Name
SM-7299	A. M. Vel Raja
SM-7300	Rashmika B. S.
SM-7301	Uma Maheshwari K.
SM-7302	Illapu Lakshmi Sindhu
SM-7303	Gavarasani Satya Veni
SM-7304	Swathy P.
SM-7305	Sowmiya M.
SM-7306	Raja Maniarasan
SM-7307	Sudharsan L.
SM-7308	Priyadharshini K.
SM-7309	Gowsika T.
SM-7310	Sasikumari R.
SM-7311	Mahi Varshini P.
SM-7312	Indhu A.
SM-7313	Vishali Vishali
SM-7314	Kavipriya G.
SM-7315	Reena Mary
SM-7316	Nandini Kumari
SM-7317	Lekshmi S.
SM-7318	Parthvi Singh
SM-7319	Rithika P.
SM-7320	Manoj Kumar
SM-7321	Padmanathan B.
SM-7322	K.S. Thakshinya

ISAE Executive Committee (2021-2025)

1	S.N. Jha	President	president@isae.in snjha_ciphet@yahoo.co.in
2	Indra Mani	Immediate Past President	maniindra99@gmail.com
3	D.M. Kadam	Vice-President (Activity Council)	dmkadam11k@gmail.com
4	Ambrish Kumar	Vice-President (Technical Council)	aktswc@gmail.com
5	P.K. Sahoo	Secretary General	secretarygeneral@isae.in sahooprmod2021@gmail.com
6	A.K. Thakur	Treasurer	drakthakur65@gmail.com
7	Dr. Adul Islam,	Editors-in-Chief (JAEI)	chiefeditorjaei@isae.in
8	Er. Mamta Jain	Editor-in-Chief (AET)	chiefeditoraet@isae.in
9	T.K. Khura	Secretary-I	tapankhura2020@gmail.com
10	Chandra Shekhar	Secretary-II & Editor-in-Chief (e-Newsletter)	Chiefeditorenewsletter@isae.in agm.engg@indiaseeds.com



ISAE Chapters

Sl. No.	Name of Chapters	Sl. No.	Name of Chapters	Sl. No.	Name of Chapters
1	ISAE AP Chapter Bapatla, Andhra Pradesh	13	ISAE Himachal Chapter Himachal	25	ISAE Odisha Chapter Bhubaneswar, Odisha
2	ISAE Telangana (Hyderabad) Chapter	14	ISAE J&K Chapter Srinagar, J&K	26	ISAE Punjab Chapter Ludhiana, Punjab
3	ISAE Assam Chapter Tejpur, Assam	15	ISAE Raichur Chapter Karnataka	27	ISAE Udaipur Chapter Rajasthan
4	ISAE Arunachal, Itanagar, Arunachal Pradesh	16	ISAE Kharagpur Chapter West Bengal	28	ISAE Coimbatore Chapter Tamil Nadu
5	ISAE Bihar Chapter Samastipur, Bihar	17	ISAE Kolkata Chapter West Bengal	29	ISAE Thanjavur Chapter Tamil Nadu
6	ISAE Raipur Chapter Chhattisgarh	18	ISAE Kerala Chapter Tavanur, Kerala	30	ISAE Allahabad Chapter Uttar Pradesh
7	ISAE Delhi Chapter Delhi	19	ISAE Jabalpur Chapter Madhya Pradesh	31	ISAE Narendra Nagar Chapter, Ambedkar Nagar, Uttar Pradesh
8	ISAE Sikkim Chapter Ranipool, Gangtok, Sikkim	20	ISAE Bhopal Chapter Madhya Pradesh	32	ISAE Lucknow Chapter Uttar Pradesh
9	ISAE Junagadh Chapter Junagadh, Gujarat	21	ISAE Rahuri Chapter Maharashtra	33	ISAE Varanasi Chapter Uttar Pradesh
10	ISAE Anand Chapter Anand, Gujarat	22	ISAE Akola Chapter Maharashtra	34	ISAE Pantnagar Chapter Uttarakhand
11	ISAE Jharkhand Chapter Ranchi, Jharkhand	23	ISAE Dapoli Chapter Maharashtra	35	ISAE Mumbai Chapter Maharashtra
12	ISAE Haryana Chapter Hisar Haryana	24	ISAE Parbhani Chapter Maharashtra	36	ISAE Bengaluru Chapter, Karnataka

Contact details

Secretary General: Dr. P K Sahoo

(isae1960@gmail.com)

INDIAN SOCIETY OF AGRICULTURAL ENGINEERS

G-4, A-Block (Ground Floor),

National Agricultural Science Centre Complex,

Dev Prakash Shastri Marg, Pusa Campus, New Delhi-110012

Tel: 011-21520143

Website: www.isae.in

ISAE GSTIN NO.: 07AAATI6307C1Z3