

# e-NEWSLETTER

## INDIAN SOCIETY OF AGRICULTURAL ENGINEERS

.... Connecting Engineers in Agriculture

March - April, 2024



5600 + Life Members

36 Chapters

2 Scientific Journals

Published by  
**INDIAN SOCIETY OF AGRICULTURAL ENGINEERS**

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## Message From The President



**My Dear ISAEians!** The Indian Society of Agricultural Engineers in last two months, March and April 2024, achieved two milestones. It has signed MoU with M/S Cyberlative IT solutions for getting all kinds of IT services and maintenance of ISAE website, development of other software modules for online marketing of journals and automatic membership certificate generations etc. Members can directly approach through e-mail for any kind of services related to website of ISAE and updation of their records. It has also hired a copyeditor for further improvements of quality of articles and research papers in JAEI and AET. I am happy to inform that the JAEI has also getting now indexed in BASE (Bielefeld Academic Search Engine) dimensions, Scilit etc. These two steps shall enable our journal citations from international fraternity. The ISAE also submitted final bid document for CIGR 2028 World Congress in New Delhi successfully.

**Dear members!** Two executive committee meetings, a chapters' meeting and advisory committee meeting were held during the period and theme of the 58<sup>th</sup> ISAE Convention and International Symposium to be held at Parbhani during 12-14 November 2024 were decided. Chapters were further motivated to open a bank account to get seed money from the headquarter and to conduct activities at local levels. They were also advised to send news items for our e-newsletter and work as reporters from different corners of India. ISAE in collaboration with Agricultural Engineering division, ICAR also conducted a meeting with Tractor Manufacturers Association (TMA) and they were given exposure for alternative future energy for tractor. Trainings placements and absorption of our students' members in design and manufacturing division of tractor manufacturing Industries were also discussed. This may improve training and employment prospects of our young members. A new conference/hall which was re-received from ICAR without increasing the charge in NASC complex was fully renovated and made a world class meeting room equipped with television, internet and other facilities during the period.

**My Dear Agrineers!** We are in talk with the Indian journal.com for revision of MoU with new terms and conditions mainly for **online marketing of both JAEI and AET on non-exclusive basis**. We have put further efforts with Karnataka, Bihar and Meghalaya states discussing with their officials and handing over several recommendations to them for formation of Directorate of Agricultural Engineering. **Friends!** The ISAE has opened sever avenues for income generations, services to members and for expansion of agricultural Engineering education and extension. You may be knowing that during last two years several Agricultural Engineering colleges such as in IARI, New Delhi, Ara/Buxer in Bihar, Secondary Agriculture College in BAC Sabour, Bhagalpur etc. have been pened/approved. We are also trying to have core courses on AI and Robotics in Agriculture, and Food safety and quality in our undergraduate courses to equip our students with contemporary technologies and sciences. Our chapters are also organizing lectures and visits of higher secondary schools to convince them that the Agricultural Engineering is the best profession to choose for higher degree, which in turn shall help in attracting best minds in our profession.

**Dear Members!** We are planning to issue ID card with QR code to members whose profile is updated on ISAE website. I request you all to update your details to enable us to provide that card to maximum members. Updation, otherwise is also needed to get all services of ISAE and also to take part in election of by the end of this year. **Friends!** This is your society and will be vibrant by action and contributions of each of you. Please come and work together for making this society power house of intellectuals and practicers in the field of Agricultural Engineering and Technology.

S N Jha  
President, ISAE

## From the Editor-in-Chief's Desk



*A new year is not just about changing the calendar, it is also about commitment. The Indian Society of Agricultural Engineers (ISAE), will continuously work hard for betterment of this society and towards a growing reputation and reach to Agricultural Engineering professionals/ Agrineers.*

*It is pleasing to note that The Indian Society of Agricultural Engineers (ISAE) is moving into a new phase of its development, and several steps have been taken by the EC in this regards. We congratulate the ISAE for the same.*

*This newsletter is featured with glimpses of efforts made through activities, training program and advancement in the field of agriculture engineering conducted during this period of March - April, 2024 across the country by various agricultural engineering institutes for dissemination of knowhow to all stakeholders. 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.*

**Chandra Shekhar**  
Chief Editor



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## ISAE Happenings

### The 27<sup>th</sup> ISAE Executive Committee meeting held on 09.03.2024

The Secretary General welcomed all the members for 27<sup>th</sup> ISAE Executive meeting and presented the action taken report, further the agenda items were listed out for discussion. After brief address of the President ISAE, following points were discussed and unanimously agreed upon during the meeting :

- It was decided that the 58<sup>th</sup> SAE Annual Convention and International Symposium to be organized by Vasantrya Naik Marathwada Krishi Vishwavidyalaya (VNMKV), Parbhani during November 12-14, 2024 in Ch. Sambhaje Nagar (Aurangabad). It was advised that the date of next ISAE convention may be flashed on ISAE website to avoid any clash in convention dates with other NASI societies.
- The draft of MoU between Cyberlative and ISAE for maintaining the ISAE website and 24 x7 digital solutions was discussed by the members point wise. Necessary changes were suggested including data privacy and the draft was approved for signing so that MoU will be in force with effect from 01.04.2024.
- The committee authorized the President and Secretary General for finalization and submission of CIGR bid documents
- The issues related to MoU to be signed between ISAE and Indianjournal.com will be taken up by the President and Secretary General with representative of Indianjournal.com at earliest.
- The Editor-in-Chief of JAE(India) briefed about the progress made on registration of the JAE(I) on UGC care, web of science database and other indexing portals. It was also informed that JAE(I) initiated work to get Index Copernicus Value. The EC also authorized the Editor-in-chief for Dol marking of the JAE (I) research papers from the year 2000 to current issue.
- For the processing of the PDF articles, the EC ratified the purchase of PDF writer costing Rs. 13000/- by the editor-in-chief and same should adjusted with ISAE account.
- The activity calendar may include the activities those had been conducted under the banner of ISAE Chapter Akola on 08-03-2024 and industrial meet by ISAE HQ on 11-03-2024.
- It was proposed to prepare the Directory of Agricultural Engineering College Departments in India and details of students' intake/pass out, affiliation etc. The President suggested to assign this job to Dr. Pramod Rai, Assistant Professor, BAU, Ranchi and Dr. K. P. Singh, ADG (Engg) ICAR under whose supervision and guidance the information will be compiled and manuscript will be prepared.

## ISAE Happenings

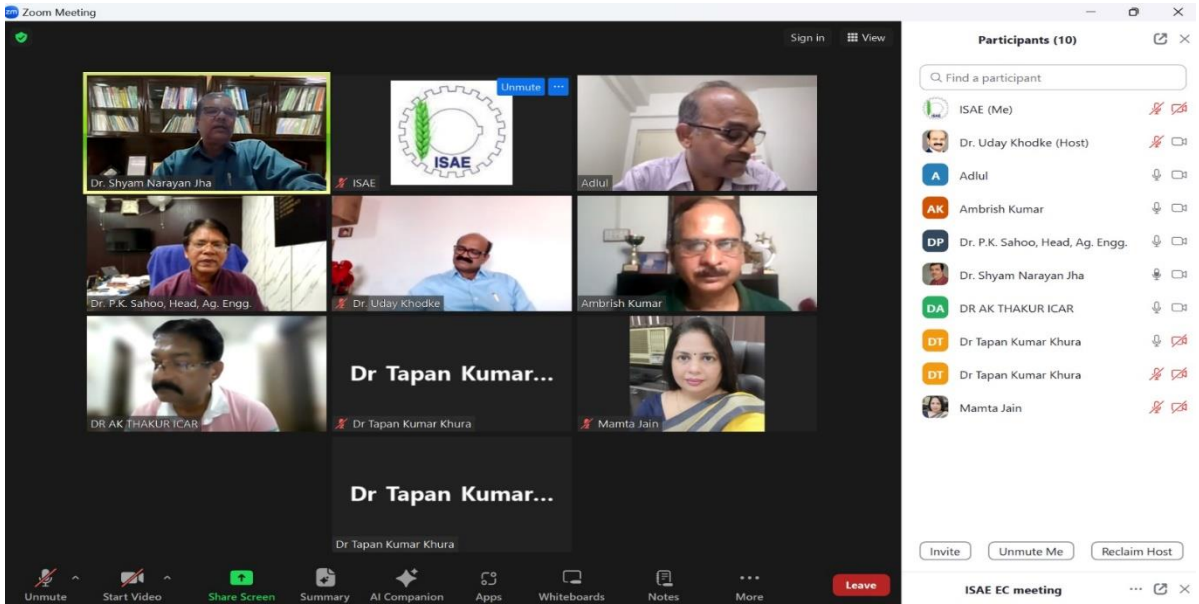
### The 28<sup>th</sup> ISAE Executive Committee meeting held on 13.04.2024

The Secretary General welcomed all the members of the Executive Committee and presented the action taken report. The progress made on CIGR bidding, issues related to MoU with Indianjournal.com, Dol of the JAE (I) research papers, registration of JAE (I) in UGC care, web science database, activity calendar of ISAE 2024, preparation of Directory of Agricultural Engineering were discussed. After brief address of the President ISAE, the following points were discussed and unanimously agreed upon. After detail discussion among the members of ISAE executive and invited members from VNMKV, Parbhani the themes of the next ISAE Annual Convention and International Symposium were decided as follows:

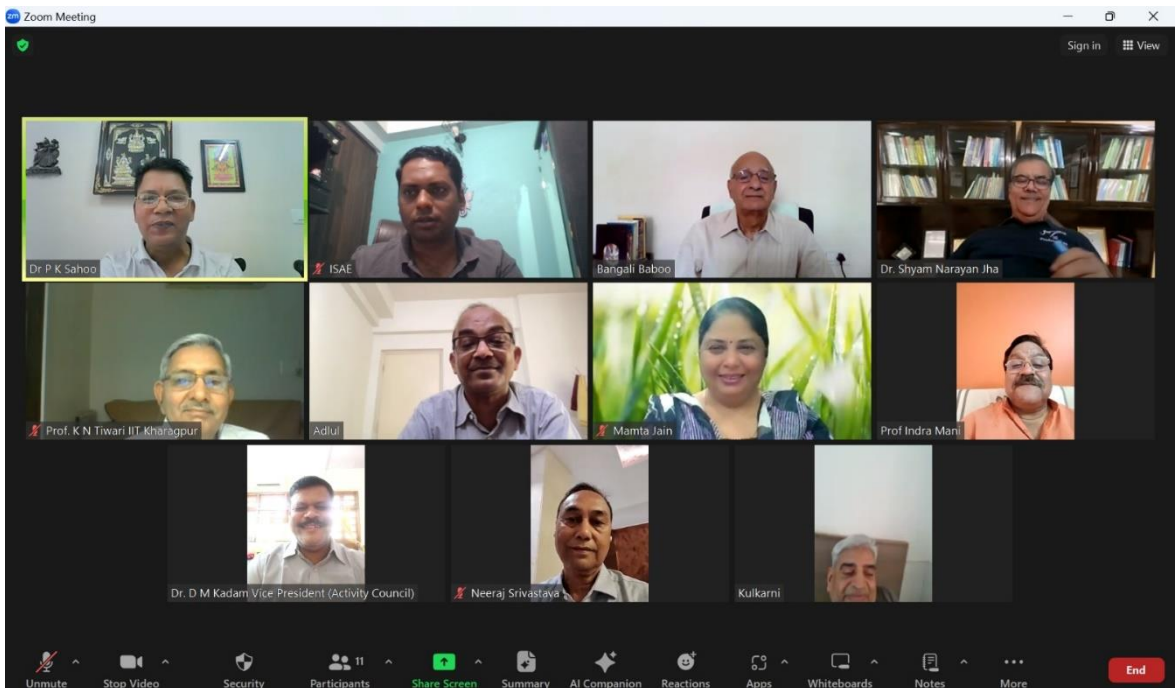
- Theme of the 58<sup>th</sup> ISAE annual convention and International Symposium were decided as "Engineering Innovations for Next-gen Digital Agriculture" and "Agricultural Engineering Education for Aspiring Youth in Transforming Agriculture" respectively. The Parbhani team was advised to develop the brochure very quickly and apply for grants from different agencies.
- It was informed that the copy editor for JAE (I), AET and other ISAE documents was hired. Er Anamika Jha from Jamshedpur will do the job in online mode/ bye-mail and pest-facto approval sought was agreed upon by the EC.
- The renovation of the ISAE HQ office has been completed and a TV of 65" was installed in the new conference room. Half of the cost of TV was sponsored by the firm renovated the office and half of the amount is to be paid by the ISAE.
- The subscription rate for ISAE journals and magazines may be communicated to the ISAE state chapters and also SAUs to get more subscriptions.
- The next ISAE advisory committee meeting may be scheduled by the end of this month.
- The Editor-in- chief JAE(I) sought permission for inclusion of new editor in the editorial board of JAE(I) as the number of submissions of research paper-s has increased substantially and also some editor(s) wanted to get relived from the Editorial board. The committee permitted the Editor-in-Chief to select the editor(s) for improving the quality and number of papers per volume of the journal.
- The Parbhani Chapter requested for approval of the Executive Board constituted. It was decided that the board may please be re-constituted as per the revised constitution and byelaws of ISAE and Secretary General will communicate at the earliest.

## ISAE Happenings

- The Executive Committee approved the charges to obtain the ratings of SJIF for JAE (I) in current year. The Editor-in-Chief may apply for SJIF rating as soon as possible and the expenses will be reimbursed by ISAE.



## ISAE Advisory Committee 2<sup>nd</sup> Meeting Held on 28<sup>th</sup> April 2024





## ISAE Happenings

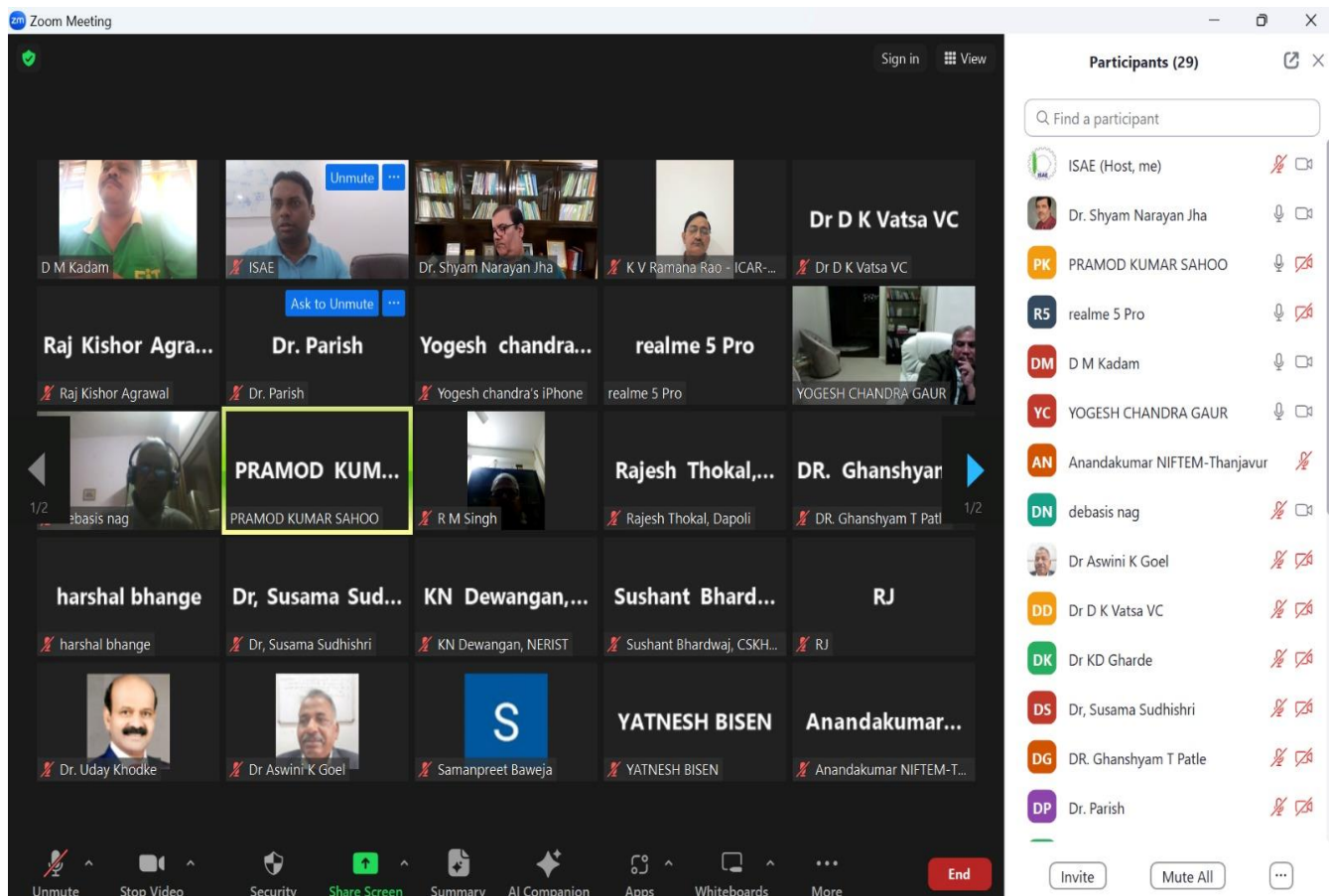
### The JAEI Editorial Board Members Meeting

A meeting of the Editorial Board Members of JAEI was held on 2<sup>nd</sup> March, 2024 (Saturday) 10:30-11:30 to discuss the JAEI manuscript review process, timely completion of review, and other issues related to manuscript review and editorial system.

The meeting was chaired by the Chief Editor JAEI and all the Divisional Editors, Associate Editor of their respective division participated in the meeting.

### The ISAE Quarterly Review Meeting of Chapters

ISAE Quarterly review meeting of chapters was conducted through online mode in zoom platform on 11<sup>th</sup> April, 2024. The chairman and secretaries of all the chapters participated in the meeting and updated the activities being conducted and planned to take-up. The meeting was chaired by Dr. Jha, President ISAE.





## ISAE Happenings

### ISAE Submitted bid for Organizing CIGR World Congress 2028

ISAE submitted final bid for organising CIGR World congress 2028 in New Delhi to Executive board of CIGR in partnership of ICAR. Ministry of fisheries, animal husbandry and dairying, ministry of food processing industries, ASABE, Agricultural machinery manufacturing association, Asian association of agricultural engineering, Indian convention promotion bureau have also provided support letters for organising the proposed world congress in India.



### भारतीय कृषि अभियंता सोसाइटी INDIAN SOCIETY OF AGRICULTURAL ENGINEERS

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डॉ एस एन झा, ए॰आर॰ एस  
Dr. S. N. Jha, ARS

FISAE, FNAAS, FIE, FNADSI, FJSPS Japan,  
HSI& ISAE Gold Medalist, LMAFSTI, LMDTSL, LMIDEA  
ICAR Rafi Ahmed Kidwai Awardee

अध्यक्ष President

Date: 27/03/2024

To  
Prof. Pedro S. Zazueta  
Secretary General  
International Commission of Agriculture and Biosystems Engineering

**Sub:** Complete proposal / bid for CIGR International Congress 2028 in India

Dear Sir,  
Greetings! from India

It is with great enthusiasm and purpose that I on behalf of the Indian Society of Agricultural Engineers (ISAE), New Delhi, present this bid to host the CIGR World Congress 2028 in India.

Indeed, India is among a global leader in agriculture and a hub of innovation. In recent times, India is experiencing an attendant surge in its share of the world's high-quality research in the agriculture sector. In view of this, India, with its diverse culture, rich heritage, and rapidly growing scientific community, stands as an ideal destination of this prestigious conference for fostering collaboration and exchange of ideas in the realm of agricultural engineering. Delegates attending the conference will have the opportunity to immerse themselves in India's vibrant art, culture and heritage as well as very old civilization, further enhancing the overall experience and fostering lasting connections.

We envision that hosting this conference in India will leave a legacy and significantly contribute to the advancement of agricultural engineering globally. The full bid document can be downloaded using the below given link. I will be happy to receive the acknowledgement of receipt of the full document and admission of the same for kind consideration of CIGR Presidium/Governing body.

<https://alpcordnews.com/CIGR-International-Congress-2028/CIGR-International-Congress-2028.pdf>

With Warm Regards

Thanking you



(Dr. S.N Jha)

Mobile 9417601715, E-Mail: [president@isae.in](mailto:president@isae.in), [www.snjha.in](http://www.snjha.in)

## ISAE Happenings

### ISAE Punjab Chapter organized a training on 'Developing Image Processing Applications in Agricultural Engineering Using MATLAB on 2<sup>nd</sup> March, 2024

The Punjab Chapter of the Indian Society of Agricultural Engineers in Collaboration with College of Agricultural Engineering and Technology and ICAR-Central Institute of Post-Harvest Engineering and Technology successfully organized a One Day Workshop on “Developing image processing applications in agricultural engineering using MATLAB” on 2<sup>nd</sup> March, 2024. On the onset, Dr Samanpreet Kaur, Secretary of Punjab Chapter welcomed the participants. Following this, Dr. Sandeep Mann, Vice Chairman of the ISAE Punjab Chapter, shared the activities of Indian Society of Agricultural Engineers and motivated the participants to join as members of the society. Dr. Manjeet Singh, Dean of COAE&T at PAU, Ludhiana was the Chief Guest of the event gave profound insights into the integration of image processing techniques in modern agricultural practices and inspired participants with his visionary outlook. Dr. Nachiket Kotwaliwale, Director of ICAR-CIPHET, graced the occasion as the Guest of Honour.

The workshop was structured into five insightful sessions, each meticulously designed to cover various aspects of image processing and its application in agricultural engineering. The topics covered were fundamental of image processing, image enhancement, segmentation, filtering, morphological operations, and practical applications using MATLAB in agricultural engineering contexts. Dr Nachiket Kotwaliwale, Director, CIPHET was the lead speaker and was assisted by his Team of Scientists which included Dr. Dhritiman Saha and Er. Shahaf Kaukab. The Workshop was attended by 27 participants including post-graduate students from diverse disciplines and interested faculty from the College.



**INDIAN SOCIETY OF AGRICULTURAL ENGINEERS  
PUNJAB CHAPTER**  
In collaboration with  
**College of Agricultural Engineering and Technology  
and ICAR-Central Institute of Post-Harvest  
Engineering and Technology**  
Cordially invites you to the  
training workshop on  
**DEVELOPING IMAGE PROCESSING  
APPLICATIONS IN AGRICULTURAL  
ENGINEERING USING MATLAB**  
**Lead Speaker**  
Dr. Nachiket Kotwaliwale  
Director, ICAR-CIPHET Ludhiana

**technology**  
**image processing**

Time : 9.00 am to 5.00 pm  
Date: 02 March 2024,  
Venue : University Data Center, College of  
Agricultural Engineering and Technology, PAU,  
LUDHIANA

Registration link  
[https://docs.google.com/forms/d/e/1FAIpQLScgcnAYEBNIMnglqOPMKohLYSGLlrKaZr93N4L0n6P7gFnN3Q/viewform?usp=sf\\_link](https://docs.google.com/forms/d/e/1FAIpQLScgcnAYEBNIMnglqOPMKohLYSGLlrKaZr93N4L0n6P7gFnN3Q/viewform?usp=sf_link)

Note:

- Limited Number of seats. Admission on first come first serve basis.
- Participants having laptops are requested to bring their own laptops.
- The workshop will be aimed at beginners.
- Exercises would be carried out on Matlab®.
- Instructions, if needed, about installing Matlab® on laptop will be sent to the selected participants.



## ISAE Happenings

The workshop not only provided theoretical insights but also offered a platform for practical application, empowering participants with the skills essential for developing image processing applications in agricultural engineering using MATLAB. The workshop concluded on a successful note with enthusiastic participation and promised to be a platform for transformative learning.





## ISAE Happenings

### Interaction of President ISAE with UG, PG and PhD Students of Agril. Engg. at Akola

Dr. Jha sir interacted with B. Tech. (Agril Engg), PG and Ph.D students at Akola. This interaction was continued for more than 3 hours with different questions from all the students, Dr. Jha has given answers to all their questions satisfying them. The students were motivated and sure that they have changed their mind set and received positive energy. Also their happy faces gave the fruitful results of this interaction.

*(Source: Dr. K. D. Gharade, President, Akola Chapter)*



## ISAE Happenings

### Inaugural Function of National Conference on Innovative Technologies and Entrepreneurship Development In Agriculture organized by Faculty of Agricultural Engineering with collaboration of Research Incubation Foundation, Dr. PDKV, Akola and Indian Society of Agricultural Engineering, Akola Chapters. (Source: Dr. K.D, Gharde)

Dr. S. N. Jha, Deputy Director General (Engg), ICAR and President, Indian Society of Agricultural Engineers, New Delhi was at Dr. PDKV, Akola for inaugural Function of National Conference on Innovative Technologies and Entrepreneurship Development In Agriculture organized by Faculty of Agricultural Engineering with collaboration of Research Incubation Foundation, Dr. PDKV, Akola and Indian Society of Agricultural Engineering, Akola Chapters. In Press conference, in presence of Dr. Sharad Gadkhakh, Hon'ble Vice Chancellor, Dr. PDKV, Akola, Dr. V.K. Kharche, Director of Research, Dr. S. R Kalbande, Dean, Faculty of Agricultural Engineering, and Dr. Kishor Bidwe, PRO. Dr. S. N Jha state that, the advance Technology have great importance in advancement of Indian Agriculture. Technology has brought positive changes in Agriculture sector. To adopt advance technology by the farmers technocrats are needed. In present scenario only 47 per cent Indian agriculture is mechanized. The Government has set goal to 75 per cent agriculture should be mechanized by 2047. This can be achieved by appointing Agricultural Engineers in the agricultural sectors. Hence, there is urgent need to established separate Directorate for Agricultural Engineering in the state levels. The most mechanized state like Panjab, Haryana, MP, Chhattisgarh and Karnataka has separated Directorate for Agricultural Engineering. But unfortunately, Maharashtra is very lag behind in this matter. Therefore, action in the matter is needy for betterment of agricultural mechanization and modernization.

## उदासीनतेमुळे यांत्रिकीकरणात महाराष्ट्राची पिछाडी

‘आयसीएआर’चे उपमहासंचालक डॉ. एस.एन. झा यांची खंत

लोकसत्ता प्रतिनिधी

अकोला : कृषी क्षेत्रात अत्याधुनिक तंत्रज्ञानाचे अत्यंत महत्त्व आहे. सध्या देशात कृषी क्षेत्रामध्ये तंत्रज्ञानावर आधारित ४७ टक्के यांत्रिकीकरणे झाले. आगामी २०४७ पर्यंत देशातील ७५ टक्के कृषी क्षेत्र यांत्रिकीकरणाचे लक्ष्य असल्याची माहिती नवी दिल्ली येथील भारतीय कृषी अनुसंधान परिषदेचे उपमहासंचालक (कृषी अभियांत्रिकी) डॉ. एस.एन. झा यांनी दिली. योजना अंमलबजावणीच्या उदासीनतेमुळे महाराष्ट्र राज्य यांत्रिकीकरणामध्ये पिछाडीवर पडल्याची खंतदेखील त्यांनी व्यक्त

हवामानातील बदलावर तंत्रज्ञान उपयुक्त

हवामानातील बदलाचा कृषी क्षेत्रावर विपरीत परिणाम होत आहे. अतिवृष्टी, अल्पवृष्टी किंवा अवकाळी पावसामुळे मोठ्या प्रमाणात नुकसान होऊन बळीराजाला आर्थिक संकटांचा सामना करावा लागतो. यावर तंत्रज्ञान उपयुक्त ठरत आहे. ‘सोलर ड्रायर’च्या माध्यमातून अतिवृष्टी झाल्यावर जमीन सुकवता येते. तंत्रज्ञानावर तापमान देखील नियंत्रित ठेऊ शकतो. विपरीत हवामानात सुद्धा तंत्रज्ञानामुळेच उत्पादनावर परिणाम झालेला नाही, असा दावा डॉ. झा यांनी केला.

केली.

डॉ. पंजाबराव देशमुख कृषी विद्यापीठात आंतरराष्ट्रीय परिषदेसाठी आले असता त्यांनी ‘लोकसत्ता’शी संवाद साधला. यावेळी कुलगुरू डॉ. शरद गडाख, संशोधन संचालक डॉ. व्ही.के. खर्चे, कृषी अभियांत्रिकी अधिष्ठाता

डॉ. एस.आर. काळबांडे, डॉ. किशोर बिडवे आदी उपस्थित होते.

एस.एन. झा म्हणाले, तंत्रज्ञानाने कृषी क्षेत्रात मोठ्या प्रमाणात सकारात्मक बदल आणले आहेत. शेती तंत्रज्ञानावर आधारित राहिल्यास ती फायद्याची होऊ शकते. शेतीतमध्ये तंत्रज्ञानाचा



अधिकाधिक उपयोग करण्यासाठी शेतकऱ्यांना तज्ज्ञ अभियंत्यांचे

योग्य मार्गदर्शन मिळणे गरजेचे आहे. प्रत्येक ठिकाणी अभियंते निवुक्त असायला हवे. जागतिक पातळीवर अनेक प्रगत देशात यांत्रिकीकरणातून शेती होते. भारतात सद्यपरिस्थितीत तंत्रज्ञानावर आधारित ४७ टक्के शेती केली जाते. २०४७ पर्यंत त्याचे प्रमाण ७५ टक्क्यांपर्यंत नेण्याचा प्रयत्न केला जाणार आहे. पंजाब, तामिळनाडू, विहार, ओडिशा राज्यांच्या तुलनेत महाराष्ट्र मागे पडला. इतर राज्यांप्रमाणे महाराष्ट्रात देखील तंत्रज्ञान विकसित करण्याची गरज त्यांनी व्यक्त केली.



## ISAE Happenings

### ISAE conducted a meeting with Tractor manufacturing Association

On 11<sup>th</sup> March, ISAE conducted a meeting with Tractor manufacturing Association in which a presentation was delivered by Dr. K R Bhattacharya on Alternative fuels for tractors.

Elaborate discussion was held and several action points for collaboration with industries were decided. About 35 participants took part in deliberations.



### ISAE Signed Agreement with M/s. Cyberlative Infrotech

ISAE Signed Agreements with M/s Cyberlative Infotech for management of ISAE website, journal management system, marketing of journals and all other digital services.





## National Workshop on 'Digital Forecasting Techniques and Decision Support System for Climate Resilient Agriculture in Rainfed Eco-systems

The National Rainfed Area Authority (NRAA), Department of Agriculture and Farmer Welfare, Government of India, convened a National Workshop on 'Digital Forecasting Techniques and Decision Support System for Climate Resilient Agriculture in Rainfed Eco-systems' in Pusa, New Delhi on 6<sup>th</sup> March, 2024. The workshop chaired by Additional Secretary, Department of Agriculture and Farmer Welfare, Shri Faiz Ahmad Kidwai and CEO of NRAA, commenced with a series of keynote addresses, including insights from the FAO Representative in India, Mr. Takayuki Hagiwara and Joint Secretary (RFS), Dr. Shri Franklin L. Khobung.

The workshop focused on identifying innovative solutions, refining forecasting models, and developing a robust framework for effective risk mitigation measures, including advisories for crop selection, nutrition management, weather alerts, pest and disease management, market information, and post-harvest advisories. The technical sessions were chaired by eminent experts in the agricultural and climate domain and the sessions delved into the intricacies of digital forecasting techniques and provided insights into the Integrated Systems to Access Agricultural Resources. Discussions revolved around various facets of digital agriculture, including Geo-spatial Solutions, and AgriMedia's role in empowering agriculture.

The workshop witnessed in-depth technical discussions, vibrant open-house discussions on the outcomes of the NRAA-FAO project, with a focus on assessing effectiveness and devising strategies for upscaling technologies. Beneficiary farmers shared their experiences, offering invaluable insights into the practical implications of digital forecasting techniques. The event served as a vital platform for government officials, agricultural experts, researchers, policymakers, and stakeholders to explore innovative strategies and technologies aimed at bolstering climate resilience in rainfed agriculture. Government representatives, agricultural experts, NGOs, and farmers converged to contribute their expertise, ensuring a holistic approach to addressing the challenges of rainfed agriculture.

With a focus on collaboration and knowledge exchange, the workshop concluded with a forward-looking aim at charting the way forward for sustainable agricultural practices. Participants expressed optimism about the potential of digital agriculture to revolutionize the sector and enhance livelihood security for farmers across the country.



## Hon'ble Union Minister Shri Arjun Munda inaugurates Agriculture Integrated Command and Control Center

With the aim of empowering the farmers of the country by equipping them with information, services and facilities using digital technology, Union Minister of Agriculture & Farmers' Welfare and Tribal Affairs Shri Arjun Munda today inaugurated the Agriculture Integrated Command and Control Center established at Krishi Bhawan, Delhi on 8<sup>th</sup> March, 2024. On this occasion, Shri Munda said that this is an innovation of the Ministry of Agriculture and Farmers' Welfare under the leadership of Prime Minister Shri Narendra Modi to make the farmers self-reliant across the country.



Union Minister Shri Munda said that work is being done with the basic mantra of Prime Minister Shri Modi - Minimum Government-Maximum Governance, so that it can be ensured that the life of a common man is not unnecessarily affected and they do their work wholeheartedly, independently and impartially and empower the nation by making themselves self-reliant, capable and empowered. With this aim in the mind, the Agriculture Ministry has added this new digital dimension for the benefit of common farmers. Shri Munda said that today technology has become an integral part of everyone's life and the government has its own responsibility as a partner while technology further empowers it. He said that it is the government's intention to further support people so that everyone can get benefit from the technology. Shri Munda said that with complete transparency, commitment and goal, the government wants that even a common farmer living in a village can make themselves self-reliant with technology. He said that the Prime Minister always emphasizes on how we can provide better information, services and facilities to the farmers, how we can increase their production capacity and potential by acting as a partner. No matter how proficient we are in any field, agriculture is a particularly important task because humans cannot live without food. That is why; we have given importance to the agricultural sector and called farmers Annadata because it is through them that food grains are stored in the country.

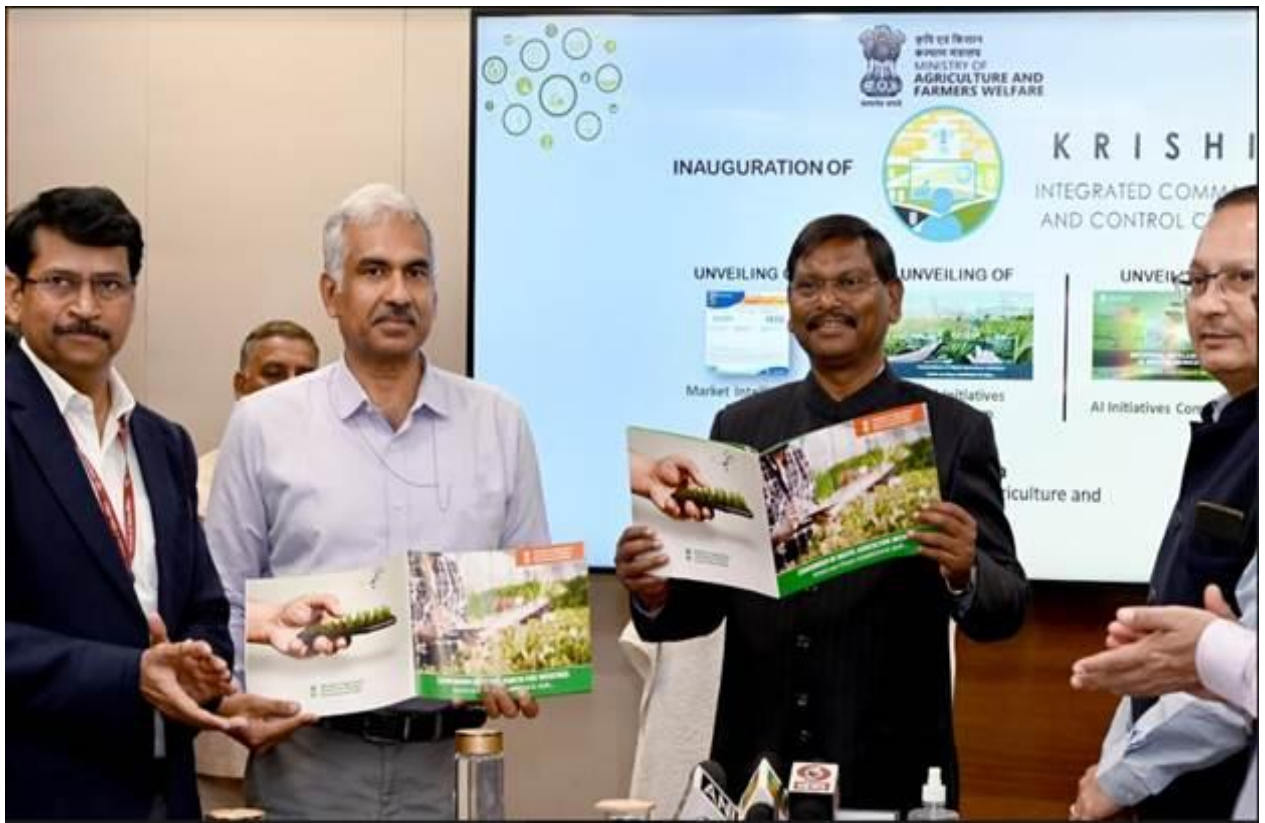
Shri Munda said that the objective of the new initiative is to provide farmers the information about the reality in the farm and also to find out what are the real challenges our agriculture sector is facing. He said that with the availability of real-time data and its analysis, their problems can be resolved and capacity will be expanded and crops will be good, which will ultimately benefit the agriculture sector in the country. Union Minister said that the farmers will also be able to avail the benefits of the government schemes. This digital innovation is an important opportunity to reflect India in the 21<sup>st</sup> century. He said that trust is a strong foundation in human life and these efforts of the government will establish trust and a safe environment among the farmers.



He said that India should not only become developed, but also a prosperous India should be created and through self-reliance the vision of 'Ek Bharat, Shreshtha Bharat' should be realized. Then every person will feel proud and respected and our culture will be reflected in itself. Shri Munda said that citizens living in any part of the country are connected to every part of India's soil and our farmers are participating in the development of the country through farms. In this sequence, Agri Stack is an important initiative in digital agriculture. Under this, a digital crop survey has been started, in which the exact details of the crops of the farmers are being ascertained.

In the starting of the event, Union Agriculture Secretary Shri Manoj Ahuja also presented his views. Additional Secretary of the Ministry, Shri Pramod Mehrada gave detailed information about the new initiative.

Multifunctional Centre- At the Command Centre, it will be possible to see all the digital innovations being made in the agriculture sector by the Ministry of Agriculture and Farmers' Welfare on a big screen simultaneously at one place. By seeing plot level data obtained from soil survey, information obtained from crop survey through remote sensing technology, information given by meteorological department, data obtained from digital crop survey, information available on agricultural map, information available on the produce (Upag) portal created for agricultural statistics, at one place, it will be possible to analyze and take accurate decisions based on them, which will be very useful.





## Closing ceremony of the International Year of Millets 2023 at the FAO headquarters, Rome, Italy in a hybrid set up

Smt. Maninder Kaur Dwivedi, Additional Secretary, Department of Agriculture and Farmers Welfare graced the global occasion along with various esteemed dignitaries from renowned international organizations and delivered keynote address highlighting India's achievements in the global campaign of the superfood.

The Food and Agriculture Organization (FAO) organized closing ceremony of the International Year of Millets (IYM) 2023 on 29<sup>th</sup> March, 2024 at the FAO headquarters, Rome, Italy. The high-level hybrid event that allowed participants to join both in-person and virtually and was graced by esteemed dignitaries from various parts of the world, including Additional Secretary, Department of Agriculture and Farmers Welfare Smt. Maninder Kaur Dwivedi from Govt. of India.

Additional Secretary, Smt. Maninder Kaur Dwivedi, from Govt. of India, underscored the significance of India's thriving Millet ecosystem comprising various Start-Ups, Industries, FPOs, in increasing promotion and adoption of millets.

Director-General, FAO, Dr. QU Dongyu in his opening remarks at the official closing ceremony, commended the international community for their commitment to advancing millet-related initiatives and emphasized the crucial role of millets in achieving food security and nutrition for all. Minister and Permanent Representative of the Federal Republic of Nigeria to FAO Mr. Yaya Adisa Olaitan Olaniran shed light on the significance of millets and outlined strategies for integrating millet cultivation into sustainable agricultural practices in Nigeria



Further in the ceremony, attendees were treated to a captivating video showcasing the diverse range of activities and events organized under the International Year of Millets 2023 across different regions, fostering the global reach and impact of the initiative. The ceremony came to a close with the concluding remarks of Deputy Director-General FAO Ms. Beth Bechdol expressing gratitude to all participants for their unwavering commitment and dedication to the success of the International Year of Millets 2023 and highlighting the importance of sustaining momentum in promoting millets beyond the designated year.

Following a proposal by India, backed by more than 70 countries, the United Nations General Assembly, at its 75<sup>th</sup> session in March, 2021, declared 2023 as the International Year of Millets. The year-long celebration successfully raised awareness about the nutritional and health benefits of millet consumption, the suitability of millets for cultivation under adverse and changing climatic conditions, and the benefits of creating sustainable market opportunities for producers and consumers. The closing ceremony served as a forum to take stock of the accomplishments of, and lessons learned from, IYM 2023 and identify priorities for future investments, particularly to address identified constraints and strengthen millets value chains.

The event showcased a series of insightful discussions and presentations underscoring the importance of millets in achieving sustainable development goals and its emergence as 'Global Superfood'. Director, ICAR-IIMR Dr. C Tara Satyavathi shared insights into India's R&D endeavours to develop a robust Millets value chain at a Roundtable Discussion on 'Research and Development for the Millets Sector,' a significant side event convened as part of #IYMClosingCeremony,

A special exhibition featuring showcase of millet-value added products from across the world and a live cooking were also organized.





## Agri- Engineers of Anand Agriculture University (AAU) has developed a food pulp extracting device

A team of Agri- Engineers of Anand Agriculture University (AAU) has developed a food pulp extracting device which eliminates the need for manually removing seeds of seeded fruits, a tedious task that has long plagued fruit processing industries. This device not only promises to be a game changer for the fruit processing industries but also farmers, commercial food processing facilities, community kitchens and even households and it even increases shelf life of the pulp extracted from the fruits.



Sayyad, along with B K Yaduvanshi, Navneet Kumar, M M Trivedi, Sravan Kumar, S K Patel and Shailendra Gangwarare, has developed the pulp extractor. The team members belong to the College of Agricultural Engineering and Technology, Godhra, and Polytechnic in Agricultural Engineering, Dahod. It is one of the most remarkable aspects of this pulp extractor is its adaptability to fruit maturity levels. By adjusting the device's inclination, any user can optimize the extraction process based on the ripeness of the fruit – giving maximum yield and minimizing waste.

Interestingly, the team has received success even in extracting pulp of custard apple, considered one of the most challenging seeded fruits. They have received success in mango, blueberries and other such fruits. But when it comes to custard apple or sitafal, the current machineries used by food processing industries provide a watery pulp while much of the fruit goes waste- which is the main challenge. The device extracts high-quality pulp flakes with compromising on taste or texture. At the same time, since, this device operates in a closed environment, it reduces oxidation and contamination risks. The shelf-life of the pulp of custard apple extracted from this device is claimed to one year if it is stored in a deep freezer between minus 12 and minus 20 degrees Celsius.

In Gujarat, custard apples are mainly planted by the forest department or tribals on the corners of agriculture farms. Tribals from Panchmahal and Dang pluck these custard apples. But by the time they bring it from forest to sell it in market, many custard apples ripe or rot, resulting in waste. AAU's team has proposed that such farmers can form a cluster to extract pulp which can later be sold to industries.

**Source** [http://timesofindia.indiatimes.com/articleshow/108927874.cms?utm\\_source=contentofinterest&utm\\_medium=text&utm\\_campaign=cppst](http://timesofindia.indiatimes.com/articleshow/108927874.cms?utm_source=contentofinterest&utm_medium=text&utm_campaign=cppst)



## Event Organised



The Agricultural Engineering Graduates Association of Nagaland ( AGEGAN) held it's 4<sup>th</sup> Biennial General Conference on 8<sup>th</sup> March, 2024 on the theme " Seeding Change, Cultivating Unity : Agricultural Engineering students Pioneering a Sustainable Future" in the presence of our two most competent resource person

1. Dr. Prabhakar Sharma ( Professor, Department of Agricultural Engineering and technology, Nagaland University)
2. Er. Sobu Angami ( Superintending Engineer, Water Resources Department)

And through their valuable knowledge, wisdom , the association and the presentees in the conference had pleasant hours of updates ,awareness and revision on the theme and related topics. The valuable and lively presence of the resource person , the conference attendees had greatly contributed and manifested the grand success of the very event, which the association appreciates and looks forward to.

*Source – ISAE Assam e-newsletter*

## NABARD and RBI Innovation Hub Collaborate for Revolutionizing Digital Agri Lending

In a landmark partnership aimed at revolutionizing digital agri lending, the National Bank for Agriculture and Rural Development (NABARD) will integrate its e-KCC loan origination system portal with the Public Tech Platform for Frictionless Credit (PTPFC) of Reserve Bank Innovation Hub (RBIH). NABARD, India's apex development bank, developed the Loan origination system portal to facilitate digital Kisan Credit Card (KCC) loan processing for cooperative banks and Regional Rural Banks (RRBs). Through the integration with PTPFC, about 351 district and state cooperative banks and 43 RRBs will gain access to a range of services including digital state land records, satellite data, KYC, credit history and transliteration for more effective credit underwriting. The partnership agreement was signed by Mr. Shaji K V, Chairman, NABARD and Mr. Rajesh Bansal, CEO, RBIH



“The digitization of agricultural lending will ensure instant doorstep delivery of credit to farmers while improving the efficiency of banks, advancing NABARD’s mission of fostering rural prosperity.” Mr. Shaji K V, Chairman NABARD said. The collaboration between NABARD and RBIH, a wholly-owned subsidiary of the RBI, will streamline the lending process and reduce the turnaround time for loans from three to four weeks to just five minutes for India’s 120 million farmers. “This partnership is not just about technology integration, it’s about reimagining rural finance and empowering our Indians with quicker, more reliable access to credit. It signifies our commitment to using innovation to deliver frictionless finance for a billion Indians,” Mr. Bansal said.

The paper-based loan process takes up substantial amounts of a farmer’s time, especially to acquire land records, that they could spend on income-generating activities. The PTPFC has seen the participation of over 10 states in making digital land records available to facilitate the seamless flow of credible information for lenders. The pilot phase of the partnership will see implementation in select RRBs including the Karnataka Gramin Bank and Maharashtra Gramin Bank and cooperative banks in Andhra Pradesh. The goal is to scale the digital lending platform to cover about 5 crore KCC loans across all cooperative banks and RRBs nationwide. This initiative will significantly reduce operational overheads for lenders while deepening access to credit, thereby fostering a more inclusive and efficient rural financial ecosystem. Both NABARD and RBIH are committed to this collaboration which will greatly contribute to the vision for a Viksit Bharat.

Source : <https://www.en.krishakjagat.org/india-region/nabard-and-rbi-innovation-hub-collaborate-for-revolutionizing-digital-agri-lending/>



## Earth Day, 2024

World Earth Day falls on April 22. It reminds us of the importance of environment conservation. The Earth day is an annual event observed across the globe to demonstrate support for environmental protection. Earth Day reminds the world about the importance of environment conservation and sustainability, encouraging us to come together and take action for a healthier planet and brighter future. The day raises awareness and inspires change, fostering a deep connection with nature.

The theme for World Earth Day 2024 is Planet vs Plastics. The theme aims to bring attention to the serious issue of plastic pollution and how it harms nature. For Earth Day 2024, EARTHDAY.ORG aims to end plastic for planetary health and demands a 60 per cent reduction in the production of all plastics by 2040.

<https://www.hindustantimes.com>



## Session on Planet vs. Plastics to Celebrate World Earth Day 2024, ICAR

A brainstorming session on Planet vs. Plastics was organised by ICAR- National Bureau of Soil Survey and Land Use Planning, Regional Centre, Kolkata on the occasion of World Earth Day i.e, 22<sup>nd</sup> April 2024. Dr. F. H. Rahman, Head, RC Kolkata, highlighted Earth Day's importance as a reminder of shared responsibility to protect and conserve the planet, encouraging individuals, communities, and governments worldwide to examine the environmental status quo and commit to sustainable actions. He also emphasized the pivotal role of ICAR-NBSS&LUP in advancing soil research at the national level, thereby contributing significantly to the conservation of the country's natural resources. The session generated numerous innovative ideas, including replacing plastic packaging with hand-painted newspapers, using ceramic tea cups instead of plastic ones, opting for steel bottles, using multi-pocket bags for vegetable shopping, and conserving energy by turning off unnecessary lights. All the staff including scientists, technical, administration, and project staff participated in the discussion.



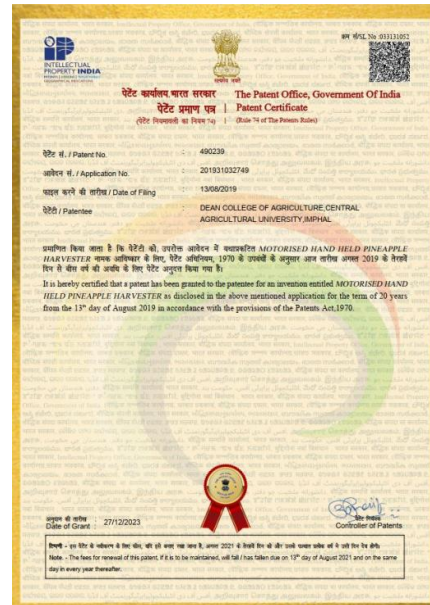
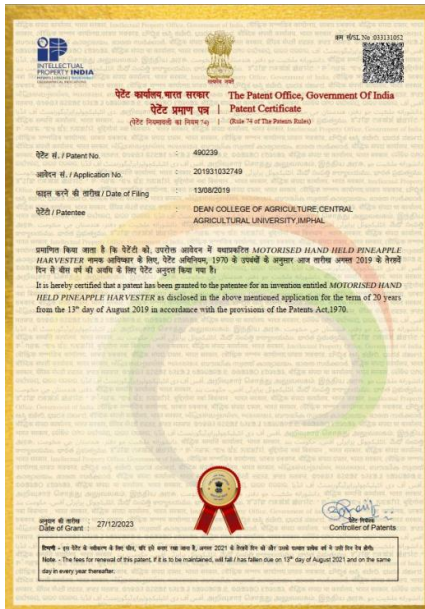
(Source: ICAR- National Bureau of Soil Survey and Land Use Planning, Regional Centre, Kolkata)



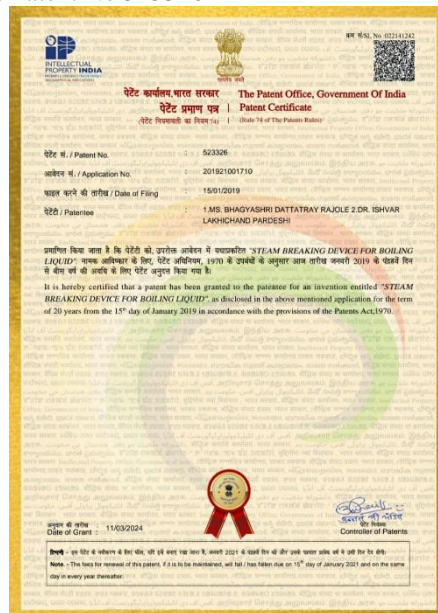
## Award / Achievements

Dr. Joykumar, Vice Chairman, ISAE Assam NE got patent on the title “ Motorised handheld pineapple harvester”. Patent No 490239

Abhijit Borah (LM-9914) & Kaushik Hazarika (LM-12327), Assam Agricultural University, received patent on the title “Natural draft gas fired tea dryer for small tea growers”. Patent No 502370



Dr. I.L Pardeshi (LM-10332) and Miss. B. D. Rajole got patent on the title “Steam Breaking Device for Boiling Liquid”. Patent No 523326



## Obituary



**Dr. Prof. R K Sivanappan**

**(04 May 1928 – 01 April 2024)**

Professor R K Sivanappan (F-15; LM-310), International Water Technologist, Formerly Dean (Agrl. Engg.) and Founder Director, Water Technology Centre, Tamil Nadu Agricultural University (TNAU), Coimbatore, passed away on 01.04.2024 at his residence in Coimbatore. He received his B. E. degree in Civil Engineering in 1953 from Madras University and M.Tech. degree in 1962 from the Indian Institute of Technology, Kharagpur. He was an USAID fellow and visited USA during 1968-69 to study Irrigation, Drainage, Soil and Water Conservation techniques at the University of California, Davis; Utah State University Logan; Oklahoma State University at Still Water; and United States Soil Salinity Lab at River Side, California, USA.

He was conferred Doctor of Science (*Honoris causa*) by the Linkoping University, Sweden in 1989 and by the Tamil Nadu Agricultural University, Coimbatore in 2005, for his outstanding research on water, irrigation management and related subjects. He started his career as a Civil Engineer in the Public Works Department, Govt. of Tamil Nadu in 1953 and served in Tamil Nadu Agricultural University at various capacities during 1956-1986. After his retirement from TNAU, he served as a Consultant / Adviser to a number of countries and funding agencies. He was also Member (Agriculture) in the Tamil Nadu State Planning Commission. His research collaboration with Swedish International Development Agency (SIDA) resulted in the implementation of number of schemes and establishment of Water technology Centre at TNAU. He has authored more than 30 books in Irrigation, Water Management, Dryland Farming, Sprinkler Irrigation, Drip Irrigation, *etc.* and published more than 1250 articles, both in English and Tamil. His articles in the regional language created awareness among the farmers of Tamil Nadu on micro irrigation. He is recipient of ISAE Gold medal (1993) and ISAE - Mason Waugh Pioneer award (2016).



**Dr. T. Guruswamy**

Dr. T. Guruswamy, Retired FPM Prof and Director of Instruction, College of Agricultural Engineering, UAS, Dharwad (Now UAS Raichur) Passed Away.. He was instrumental in uplifting FM department and CAE, Raichur. He was Basically a Mechanical Engineer and did his Master's and Ph D in Agril Engg, FPM from PAU, Ludhiana under the guidance of Dr S R Verma. He is instrumental in establishment of CAE, Raichur degree program from diploma. Also converting B Sc Agril Engg into B Tech Agril Engg in 1992. He was PI of AICRP on FPM and Energy, HoD of FPM and then Dean CAE, Raichur before he got retired. Very Dynamic and team leader, proactive, good administrator, soft spoken, highly intelligent and supportive to students and staff. He was the man of integrity, dedication, principles and hardworking.

Our heartfelt condolences.

## New Members

### Life Members

Membership No.	Names
LM-12772	Dr. Priti Dhanraj Jagnade
LM-12773	Dr. Angrej Singh
LM-12774	Dr. Amina Raheja
LM-12775	Er. Priyanka Dattatray Jadhav
LM-12776	Dr. Pooja Goyal
LM-12777	Er. Munuvelu Vese
LM-12778	Dr. Sudhir Arjun Lad
LM-12779	Dr. Sheela Pandey
LM-12780	Dr. Deepak Rajpurohit
LM-12781	Dr. Rakesh Sharma
LM-12782	Er. Jayarajan R
LM-12783	Dr. Anshu Sharma
LM-12784	Dr. Rejaul Hoque Bepary
LM-12785	Dr. Deepshikha Deuri
LM-12786	Dr. S. Ezhilvelan
LM-12787	Er R. Narendra Babu
LM-12788	Dr Syed Zameer Hussain
LM-12789	Dr Vandana D Mohod
LM-12790	Dr Indira Bhupendra Soneji
LM-12791	Dr Ramalakshmi A
LM-12792	Er Tawheed Amin
LM-12793	Dr Balenahalli Narasingappa Ramesh
LM-12794	Er Rimum Murtem
LM-12795	Dr Priti Jain
LM-12796	Dr Kotha Madhu Murthy
LM-12797	Dr Prakash Kumar Nayak
LM-12798	Er Dev Vrat Kumar
LM-12799	Dr Periyar Selvam. S
LM-12800	Er Vasu Kumar
LM-12801	Er Kusum Meghwal
LM-12802	Dr Sumit Kumar
LM-12803	Er Ravikumar Laxman Kshirsagar
LM-12804	Dr Radhna Gupta
LM-12805	Er Anurag Mangalbai Bhargav
LM-12806	Dr GAJENDRA SINGH
LM-12807	Er Puchala Harsha Vardhan Reddy
LM-12808	Dr Kartick K. Samanta
LM-12809	Er. Bhupendra Lohar
LM-12810	Dr. Akhilesh Kumar



## New Members

### Life Members

Membership No.	Names
LM-12811	Dr Mallikarjun Reddy
LM-12812	Dr KP Sudheer
LM-12813	Er Jatinder Kaur
LM-12814	Er Jyoti Padhan
LM-12815	Er Dipak Subhash Gavit
LM-12816	Dr. Dilpreet Singh
LM-12817	Dr Bapurao Govinda Gaikawad
LM-12818	Dr Ashwini Marotirao Charpe
LM-12819	Er Preeti
LM-12820	Er Subhrajyott Bhatta Charjee
LM-12821	Er TAPI TADA
LM-12822	Dr Yuvraj Kantilal Bhogil
LM-12823	Dr Kalluri Praveen

### Annual Members

Membership No.	Names
AM-240303	Er. Rajmohan C.K.
AM-240304	Er. Rahul Islam Barbhuiya
AM-240305	Er. Shiv Narayan Singh
AM-240306	Er. Shirsha Choudhury
AM-240407	Er. Manish Kumar Choudhary
AM-240408	Er. Puranik Pratiksha Hanmant

### Student Members

Membership No.	Name
SM-240340	Shri Shyamendra Singh
SM-240341	Shri Valand Nayana Bhagubhai
SM-240342	Shri Samansh Y Suvarna
SM-240343	Shri Lalit Pratap Singh
SM-240444	Shri Aniket Krushna Raut

### Institutional Members

Membership No.	Name
M-36	ICAR-Central Institute for Research on Cotton Technology, Mumbai

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4	Ambrish Kumar	Vice-President (Technical Council)	aktswc@gmail.com
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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





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2	ISAE (Hyderabad) Chapter Telangana	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

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