

e-NEWSLETTER INDIAN SOCIETY OF AGRICULTURAL ENGINEERS

.... Connecting Engineers in Agriculture

May-June 2025



7000 + Members

36 Chapters

3 Scientific Publications

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Message From The President



***My Dear ISAEians!** I am happy that our beloved e-newsletter for which many of you used to wait, is continuously being published even during the transition period of change of executive committee/council, it published on time. Please thank Er. Chandrasekhar and other editorial members for their continued efforts and desirable results. Now almost all posts through election/nomination as per byelaws are filled and hope with new team we will be doing better than the previous term. Initially there were hiccups, but we are learning that how to cope up with the new situations. Our moto is not as “business as usual” but we try to keep negative forces away and do extraordinarily exceptional in all activities of our society. In last two months we had two executive committee meetings, one ISAE council meeting and several round of sittings with editor-in-chief JAEI, Secretary General and website provider. Several decisions were made to implement in due course of time.*

***Dear members!** Some important work carried out during the period were signing MoU with M/S Cyberlative IT Solutions for renewing our contracts for our website services, finalized draft MoU with World Scientific Publishing, Singapore, checking of online award application module. To strengthen ISAE further **we have formed a committee to study the election process of other renowned associations/societies and suggest remedies for further improvement in conducting ISAE election.** We have also made a committee to draft standards for new upcoming technologies as that of ASABE and other similar agencies.*

***Friends!** ProQuest database for indexing and marketing of journal is now functional and you can observe its effects on citations of paper published and listed on Google Scholar. It has also enabled JAEI that we can use ProQuest logo keeping Clarivate at top. Please visit JAEI site and see the same. Using Clarivate in logo give lot for getting SCOPUS and Web of Science indexing for which we are waiting for years. I am also happy to inform our all learned authors that JAEI has been approved for indexing by CABELLS Journalytic, for which we had applied on the 10th August 2024. The JAEI (April - June 2025 issue) was again published one week before schedule 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 and contribute good quality manuscripts to our beloved journal. I request all members and readers of journals to **please come forward for reviewing papers** and giving quality input in timely manner for further improvements of our journal.*

Dear Members!!** The persuasion for establishing directorate/Department of Agricultural Engineering in states is on. In concluding conference of **Viksit Krishi Sankalp Abhiyan (VKSA)** of Central Agricultural Ministry, it was also raised and showed the top most requirement of farmers and thus each state must establish Directorate of Agricultural Engineering for which support of HAM and both secretaries (DARE & DoAFW) from Central Government were also received. In last two months, I had pursued the cases in Bihar (by personal visit) and Telangana and Assam by telephone from here Delhi. But I believe we will not get much tangible success till persuasion at local level is not done with full vigour and force. **Awake! Arise above all without finding faults in each other and loss and gain from the movement!! Pursue together for the cause of our profession!

***Dear readers!** The dates for the 59th ISAE annual convention and International Symposium are now out. It is during 10 – 12 November 2025 at ICAR-CIAE Bhopal. The ICAR ICAR-CIAE Bhopal is in its golden year of its establishment. **The Convention and International symposium themes are “Engineering Innovations for Agriculture 5.0” and Mechatronics and robotics in Pre- and Post-production Agriculture, respectively.** Request you all to plan to attend this mega event of our society in advance and make it the most memorable conference in the history of ISAE and the ICAR-CIAE Bhopal. Jai Hind! Jia Bharat!*

S N Jha
President, ISA

From the Editor-in-Chief's Desk



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. Further govt. has launched the Viksit Krishi Sankalp Abhiyan whici as a significant initiative for farmers and an unique effort to support agricultural development. Mechanization and role of Agriculture is one of the major part in this Abhiyaan. The emphasis on mechanization under this abhyaan is higlited in this newsletter.

The society and the member are working actively, to reach maximum number of Agrineers and professional in the agriculture sector through its publications, training session and activities across the country through ISAE chapters. This newsletter is featured with glimpses of efforts made through activities and advancement in the field of agricultural engineering conducted during this period of May- June, 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. Your suggestions, feedback are also solicited for further improvement of this mouthpiece of ISAE.

Chandra Shekhar
Chief Editor



e-Newsletter Editorial Board



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ISAE Happenings

1st ISAE Council meeting held on 11.05.2025

The 1st ISAE Council meeting was held on 11.05.2025 (4:30 PM) in Zoom platform. In addition to the elected members of the ISAE Council, the Chairpersons of State Chapters being council member as per byelaws of ISAE were also invited and some of them were present in the meeting. At the outset the Secretary General welcomed all the members of ISAE Council (2025-28) for the First meeting and congratulated them for being elected to the Council in various positions. The President, ISAE also congratulated the elected members and briefly apprised about the pending activities in the ISAE and sought the cooperation of all the ISAE Council members for smooth functioning.

A few of the agenda items were placed before ISAE Council for ratification and some others were discussed and decided unanimously. The decisions taken in the first and second EC meeting held on 10.04.2025 and 10.05.2025 respectively regarding the nominations to vacant posts in ISAE Council (2025-28) with reference to R18.7 of ISAE Constitution, Bye- Laws, Rules and Memorandum of Association (Revised and updated) adopted in AGM on The 9th November, 2022 at Combatore, were placed before ISAE Council for ratification. The ISAE Council ratified the decision taken by the Executive Committee.

Dr. A Raviraj, Dean, TNAU, Combatore: Director (Soil and Water Engineering)

Dr. N L Pawar, MPUAT, Udaipur: Director (Energy and Bio-Engineering)

Dr. S K Dash, OUAT, Bhubaneswar: Director (Education, Research and Extension)

Dr. Debasmita Mishra, Alaska, USA: Director (International Co-operation)

Dr. Abhay Thakur, ICAR HQ: Treasurer

Dr. Arun Kumar TV, ICAR-IARI, New Delhi: Secretary-I

Er Chandra Sekhar, NSC, New Delhi: Secretary-II & Editor-in-Chief (E-newsletter)

Dr. Adul Islam, NRM SMD, New Delhi: Editor-in-Chief (JAEI)

Er. Mamta Jain, Krishi Jagran: Editor-in-Chief (AET)

1. The constitution of the Advisory Committee with the following members for a tenure co- terminus with the ISAE Council with reference to R4.1 of ISAE Constitution, Bye-Laws, Rules and Memorandum of Association (Revised and updated) adopted in AGM on The 9th November, 2022 at Combatore was placed as below before ISAE Council and the same was ratified.

Dr. N C Patel, Past President & former VC

Er. Rajeev Choudhury, Representative from State Government Services

Dr. T R Keshvan, Representative from Industry

Dr. V M Salonke, Representative from International Organization

Dr. S K Ambasta, Representative from Central Government Services

2. The names of the Co-opted members to ISAE Council for the period 2025-2028 as given below were placed before ISAE Council and the same was ratified.

Mr. Praful Pandey, Mahindra & Mahindra

Dr. Deven Baruah, Professor, Tejpur University

Dr Chanchala Priya, State Government Service

3. It was decided that both the Vice-Presidents will make an annual plan of work as per duties defined in byelaws and rules with the respective Directors under each VP to be carried out during 2025 and progress of them will be monitored in each monthly executive committee meeting.

ISAE Happenings

4. The offer of World Publishing Company, Singapore for publishing JAEI was discussed and decided to initiate the process to transfer the publishing rights of JAE(I) to any Publisher on mutually agreed terms and conditions.

5. It was decided to constitute a committee with following members to recommend reforms in election process of ISAE by reviewing the processes followed in IEI, AFSTI etc. and committee should submit recommendations within three months for discussion/adoption by ISAE Council and AGM in next meeting.

Dr Kanchan K Singh, Former ADG(FE)

Dr Man Singh, Former PD(WTC)

Dr Nachiket Kotwaliwale, Director, CIPHET

6. It was decided to write letters to Patna Chapter and Parbhani Chapter of ISAE for settlement of the accounts of respective Annual Conventions. It was also decided to pay the Printer for printing of the ISAE calendar-2025 and settle the account. The Editor-in-Chief of JAEI was authorized to apply for SJIF Impact Factor and pay from his side, which will be reimbursed by the ISAE. The facility of Video Conferencing in ISAE headquarter must be created as soon as possible for conducting meetings, trainings etc.

7. The themes of the ISAE 59th Annual Convention and International Symposium were decided as given below. The date of the said event was fixed as November 10-12, 2025.

Theme of Annual Convention: **Engineering Innovations for Agriculture.**

Theme of International Symposium: **Mechatronics and Robotics in Pre and Post Production Agriculture**

8. It was decided to sign MoU with APEDA for getting Import/ Export data for publication in AET. It was also decided that ISAE will collaborate with the programs of Krishi Jagran without any financial liability to ISAE for forthcoming conclave and Awards Showcasing Innovation in Agricultural Mechanization.

9. It was decided that there will be a notification on ISAE website inviting for the theme of ISAE wall calendar-2026 and a competition among for PhD students will be organized as was done in previous years.

10. The council discussed the widening of ISAE activities for making the standard. A standing committee with following members was constituted for making standards in line with ASABE for newly developed Agricultural Machines/products as will be decided by the committee. The committee will constitute sub-committees for making standards on specific machines.

Dr C R Mehta, Director, ICAR-CIAE, Bhopal- Chairman

Mr. Pradeep Kumar Sharma, Scientist-B, BIS- Member

Mr. Debasish Mahalik, Scientist-C, BIS- Member

Vice-President (Activity Council) - Member Secretary

11. It was decided to constitute a working committee to make policy, plan, and recommend actionable points for giving more emphasis on Irrigation and Drainage Engineering for the country. Following Members were nominated.

Dr S K Ambastha, CGWB

Dr Suresh Kulkarni, Proposer

ISAE Happenings

Dr Ella Reddy

Dr Ramana Reddy G V

12. It was also decided that ISAE should accelerate revenue generations by collecting CSR funds, endorsing products of Industry in line that of Dental societies etc.

13. It was decided that membership drive may be intensified. There must be meetings with State officials at regular interval to reap the benefits of the steps taken by the ISAE.

After discussions of regular agenda above, the agenda items shared by the honorable Council members were discussed and decisions were taken unanimously as given below.

14. It was decided to update the Directory of members, industries related to Agri Engineers etc. The Newsletters/ monthly reports may be prepared by the State Chapter like Assam Chapter to create awareness among members. Also, awareness meetings may be organized by the State Chapters.

15. The proposal by Er N K Lohani, Director (State Services) regarding merger of Executive Committee and Council, all decisions to be taken by ISAE Council only, Committee for revision of Constitution and Bye-laws and financial regulations pertains to revision of ISAE Constitution, Bye-Laws, Rules and Memorandum of Association were discussed thoroughly. Majority of members opined that all these matters are related to changes in constitution, byelaws and rules of ISAE. The council therefore suggested Er. Lohani to move the proposal for the same followings the guidelines and suggestions given in the present bye-laws and the same will be discussed in executive committee, ISAE council and decisions will be taken as per present bye-laws and rules to make an agenda item for AGM of ISAE. As of now the ISAE will function as per the ISAE Constitution, Bye-Laws, Rules and Memorandum of Association (Revised and updated) adopted in AGM on The 9th November, 2022 at Coimbatore.

16 . The proposal by Dr S K Chakraborty regarding theme of the 59th ISAE Annual Convention and International Symposium was discussed and finalized. Regarding Chief Guest, Guest of Honor it was decided that honorable Agriculture Minister, Gol will be approached and the appropriate decisions will be taken as the dates of Convention will be nearer.

17. The proposal submitted by Mrs. Madhuri regarding Industry-Academia meet, students awareness programme, industry experts' sessions for chapters, skill and personality development sessions, entrepreneurship workshops and involvement of industries in ISAE activities were appreciated and it was suggested to submit the complete proposals mentioning the details about the programme including financial liabilities to VP activity Council at the earliest for further necessary action.

At the end President, ISAE addressed all the members and recalled the work done in last ISAE council and requested the new committee to work hard and show commitments for more and more work so that ISAE should reach to further newer heights. He also opined that each and every member should give at least one hour daily for ISAE work for continued development and progress of the society.

The President, ISE expressed happiness saying that we are fortunate enough to get chance to serve the society and our profession from which we are getting everything in our life. He again congratulated all members and call their all-out involvements in the work of the society and assured that with everybody support and involvement the ISAE will certainly reach a newer height in the next three years.

The meeting ended with thanks to the chair by the Secretary General.

ISAE Happenings

2nd ISAE Executive Committee meeting held on 10th May 2025

The 2nd ISAE Executive Committee meeting was held on 10.05.2025(11:00AM) in ISAE headquarter in hybrid mode and 04 elected members were present in the meeting. The Secretary General welcomed all the members of Executive Committee for the 2rd EC meeting and apprised about the ATR on the decisions of the previous EC meeting. The President, ISAE briefly apprised both the Vice-Presidents about the pending activities in the ISAE due to delayed decisions and sought the cooperation of all the ISAE Council members for smooth functioning.

The following points were discussed and decided unanimously.

1. It was decided in the first EC meeting that with reference to R18.7 of ISAE Constitution, Bye-Laws, Rules and Memorandum of Association (Revised and updated) adopted in AGM on The 9th November, 2022 at Coimbatore, for the vacant posts in the ISAE Council (2025- 2028) following life members were nominated as mentioned against their names. Once again, it is proposed that the above decision will be ratified by ISAE Council in the next meeting on 11.05.2025.
 - Dr A Raviraj, Dean, TNAU, Combatore: Director (Soil and Water Engineering)
 - Dr N L Pawar, MPUAT, Udaipur: Director (Energy and Bio-Engineering)
 - Dr S K Dash, OUAT, Bhubaneswar: Director (Education, Research and Extension)
 - Dr Debasmita Mishra, Alaska, USA: Director (International Co-operation)
 - Dr Abhay Thakur, ICAR HQ: Treasurer
 - Dr Arun Kumar T V, ICAR-IARI, New Delhi: Secretary-I
 - Er Chandra Sekhar, NSC, New Delhi: Secretary-II & Editor-in-Chief (E-newsletter)
 - Dr Adlul Islam, NRM SMD, New Delhi: Editor-in-Chief (JAEI)
 - Er Mamta Jain, Krishi Jagran: Editor-in-Chief (AET)
2. Following members were nominated for the Advisory Committee for a tenure co-terminus with the ISAE Council with reference to R4.1 of ISAE Constitution, Bye-Laws, Rules and Memorandum of Association (Revised and updated) adopted in AGM on The 9th November, 2022 at Combatore.
 - Dr NC Patel, Past President & former VC
 - Er Rajeer Choudhury, Representative from State Government Services
 - Dr T R Keshvan, Representative from Industry
 - Dr V M Salonke, Representative from International Organization
 - Dr S K Ambasta, Representative from Central Government Services
3. The President, ISAE with the approval of the ISAE Executive Committee Co-opted following members to ISAE Council for the period 2025-2028
 - Mr. Praful Pandey, Mahindra & Mahindra
 - Dr. Deven Baruah, Professor, Tejpur University
 - Dr Chanchala Priya, State Government Service

ISAE Happenings

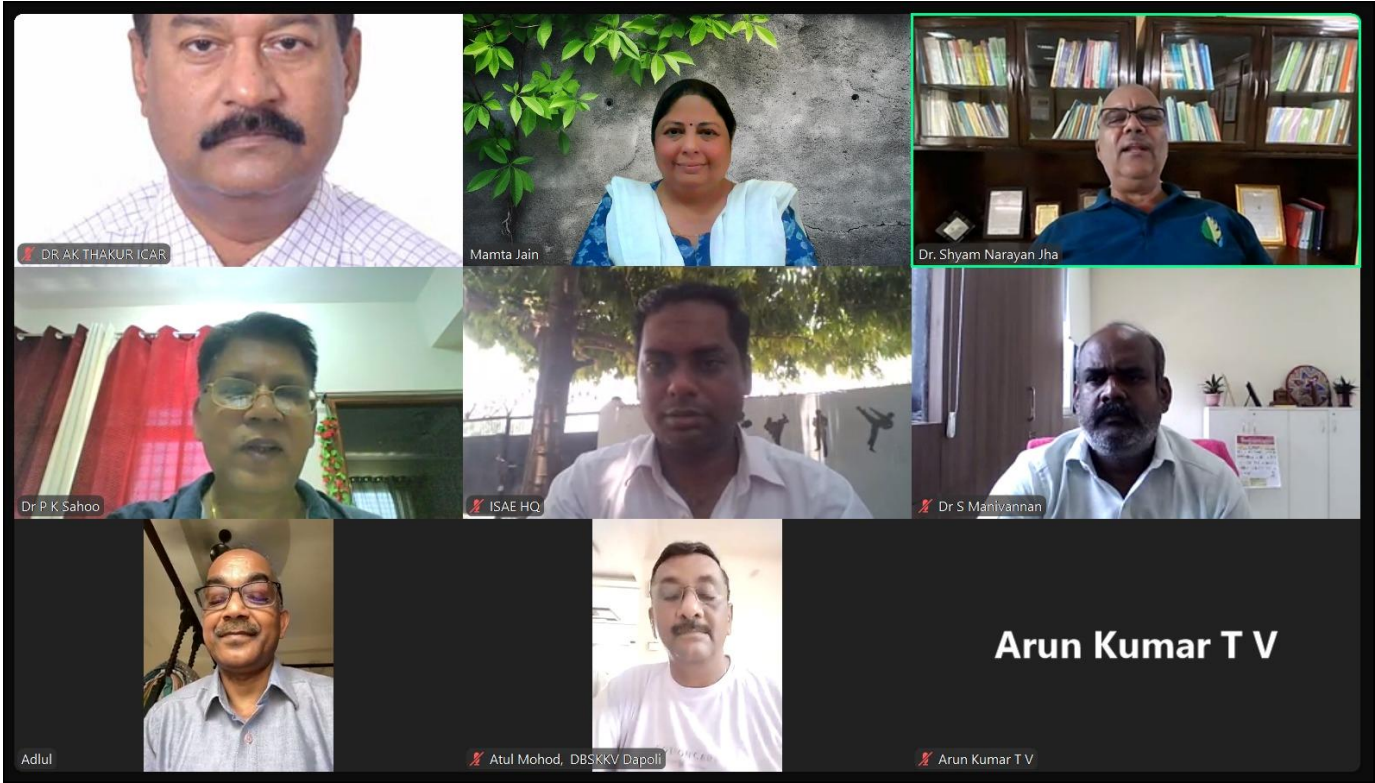
4. The President requested both the Vice-Presidents to make an annual plan of work as per duties defined in byelaws and rules with the respective Directors under each VP to be carried out during 2025 and finalize them in next Executive Committee meeting
5. It was decided to search International publisher of repute for transfer of publishing rights of JAE(I) to have assured and sustainable solutions for publication of JAEI
6. It was decided to constitute a committee with following members to recommend reforms in election process in reviewing the processes followed in IEL, AFSTI etc.
 - Dr Kanchan K Singh, Former ADG(FE)
 - Dr Man Singh, Former PD(WTC)
 - Dr Nachiket Kotwaliwale, Director, CIPHET, Ludhiana
7. It was decided to write letters to Patna Chapter and Parbhani Chapter for settlement of the accounts of respective Annual Conventions. It was also decided to pay the Printer for printing of the ISAE calendar-2025 by ISAE HQ. The Editor-in-Chief may process for SJIF Impact Factor and pay as per charge, if any, and get reimbursed from ISAE. The facility of Video Conference in ISAE headquarter must be created as soon as possible for conducting meetings, trainings etc.
8. The themes of the Bhopal Convention were decided as given below. The date of annual convention was decided as November 10-12, 2025. Annual Convention theme: Engineering Innovations for Agriculture 5.0 International Symposium theme: Mechatronics and Robotics in Pre and Post Production Agriculture It was decided to sign MoU with APEDA for Import Export data for publications in AET. It was also decided that ISAE will collaborate with the programs of Krishi Jagran without any financial liability to ISAE.
9. It was decided that there will be notification in ISAE website for the theme of ISAE wall calendar-2026 and a competition among the students will be organized as did in last years
10. A committee with following members is constituted for making standards in line with ASABE for newly developed Agricultural Machines/technologies. The committee will constitute sub-committees for making standards on specific machines
 - Dr C R Mehta, Director, ICAR-CIAE, Bhopal- Chairman
 - Mr Pradeep Kumar Sharma, Scientist-B, BIS- Member
 - Mr. Debasish Mahalik, Scientist-C, BIS- Member
 - Vice-President (Activity Council)- Member Secretary
11. It was decided to constitute a working committee to make policy, plan, and recommend actionable points for giving more emphasis on Irrigation and Drainage Engineering for the country. Following Members were nominated
 - Dr S K Ambastha, CGWB
 - Dr Suresh Kulkarni, Proposer
 - Dr Ella Reddy
 - Dr Ramana Reddy G V
12. It was also decided that ISAE should accelerate revenue generations by collecting CSR funds, endorsing products of Industry in line that of Dental societies etc.
13. It was decided that membership drive may be intensified. There must be meetings with State officials at regular interval to reap the benefits of the steps taken by the ISAE

ISAE Happenings

3rd ISAE Executive Committee meeting held on 14 June 2025

The third ISAE Executive Committee meeting was held on 14 June 2025 at 11:30 am in Zoom. The meeting commenced with the Secretary General welcoming all members of the Executive Committee. In his opening remarks, the Secretary General provided a comprehensive briefing on the Action Taken Report regarding the discussions and decisions made during the previous Executive Committee meeting. He emphasized the continued importance of following up on previous commitments and stressed the responsibility of the current leadership in ensuring the ongoing execution of initiatives. The Secretary General also highlighted the critical role of continuity in the work initiated during the first term, particularly with regard to programs and strategies that were set in motion. He reaffirmed that the successful completion of these activities would require sustained effort and commitment from all members throughout the second term.

The President acknowledged the progress made thus far but emphasized the necessity to expedite pending work. He urged the members to focus on the timely completion of ongoing tasks, stressing the importance of maintaining continuous efforts to meet deadlines and achieve set objectives. In addition, the President made a specific request for all Committee members to actively circulate the upcoming Convention brochure to all relevant stakeholders. He encouraged promoting interdisciplinary participation, particularly to ensure broad engagement and diverse contributions from various fields, which will ultimately enhance the overall success of the upcoming event.



ISAE Happenings

The following agenda items were discussed and decided anonymously.

1.The theme for ISAE Calender-2026 was decided as “Impact of Agricultural Engineering in India”. In this regard, it was decided to give wider publicity along with competition open for UG, PG and PhD students and also put on ISAE website to get input from the members of the society.

2.AET/आधुनिक कृषि अभियांत्रिक Editorial board has been revised as follow:

- Dr Devinder Dhingra, Krishi Anusandhan Bhawan-II, ICAR, New Delhi
- Dr. Prasoon Verma, ICAR-Indian Institute of Pulses Research, Kanpur
- Dr. R K Srivastava, SKUAST, Jammu
- Dr. Gopal Carpenter, ICAR-Central Institute of Agricultural Engineering, Bhopal
- Dr. Rajesh Modi, ICAR-Indian Sugarcane Research Institute, Lucknow
- T R Kesavan, TAFE

In addition to above, for आधुनिक कृषि अभियांत्रिक the name of Mr. Rakesh Kumar deputy director (Rajbhasha), CIAE Bhopal was approved as editor instead of translator

3.Revision of the page designing charges for AET/आधुनिक कृषि अभियांत्रिक : On long pending demand of page designer it was decided to revise the page designing charges of AET/आधुनिक कृषि अभियांत्रिक, 15000/- per issue of both magazines instead of 12000/- earlier from the September issue of 2025. It was also decided with consent of Editor-in-chief that henceforth five advertisements in each issue should be allowed with the same rate of advertisement of Rs. 25000/- per page

4.Registration of revised By-Laws: A member of ISAE council raised matter of registration of revised and updated constitution, bye-laws and rules of the society. The secretary General informed that the same has been submitted to society registration office and receipt of speed post is in ISAE office. Sub-registrar office of Delhi was also explored, but no clue got for the same. The VP activity council informed that if the society was registered in the same state office, then now no action is needed. However, efforts will be made to contact the law-firms for legal opinion.

5.Finalization of Annual Plan of Work for 2025: The President requested both Vice- Presidents to finalize the annual plan of work for 2025, in consultation with the associated Directors, as per the duties outlined in the by-laws and rules. The finalized annual plan is to be presented at the next EC meeting, before putting on ISAE website

6.Invitation to Bhopal Chapter for Next EC Meeting: It was decided to invite the Bhopal Chapter to the next EC meeting to present their preparedness for the upcoming ISAE Convention-2025

7.Preparation for CIGR Conference: Preparation of CIGR conference 2028 need now speeds and scale. It was therefore decided to invite Dr. Devinder Dhingra, Member Secretary of the Organizing Committee for the conference from the next EC meeting to brief and update on the progress of preparations

8.Revenue Generation and Settlement of Funds: The President stressed the need to increase the revenue generation of the Society, considering the annual expenditure. It was also reiterated that re-funds from the chapters, particularly the Parbani and Patna chapters, should be settled at the earliest

ISAE Happenings

Announcement for 59th Annual Convention of Indian Society of Agricultural Engineers (ISAE) and International Symposium

The 59 Annual Convention of Indian Society of Agricultural Engineers (ISAE) and International Symposium are being jointly organized by the Indian Society of Agricultural Engineers, New Delhi and ICAR-Central Institute of Agricultural Engineering, Bhopal during 10-12 November, 2025 at Bhopal, India. The event will facilitate researchers, academicians, technocrats and industry professionals to deliberate on their innovative ideas pertaining to farm mechanization, development of energy efficient farm machinery, automated management of irrigation systems, smart agricultural practices, precision farm management and post-harvest management of crops for quality and safe food, adaptation of renewable energy technologies in modern agriculture and strategies for Agricultural Engineering education

THEME OF CONVENTION :

The theme for annual convention "Engineering Innovations for Agriculture 5.0" is chosen in the context of the pivotal role played by the Agricultural Engineers in ensuring India's food security during green revolution era and ahead. However, today's agriculture needs reduction in cost of cultivation, precise application of inputs and resources, value addition as well as risk management in agriculture production by use of new digital technologies. Indian agriculture is facing several serious challenges such as extremities of weather, diminishing natural resources, shortage of farm workers and decreasing farmers' income. The only possibility to increase the farmers' income with the limited resources is through intervention of novel and next-gen agricultural engineering technologies like drones, robotics, AI, IoT, weather predictors, digitization, automation, and block-chain for enhancing farm productivity, processing and value addition. These issues shall also be discussed in depth during the International symposium "Mechatronics and Robotics in Pre and Post Production Agriculture". The major objective of the convention is to provide a platform for policy makers, academicians, industry professionals, farmers, students and other stake-holders to deliberate, discuss and come up with appropriate solutions to achieve the goal of transforming agri-food systems.

Theme 1 : Farm Mechanization and Automation

Theme 2 : Post-harvest Engineering and Technologies

Theme 3 : Soil and Water Conservation Engineering

Theme 4 : Green and Alternative Energy Technologies



ISAE Happenings

**INDIAN SOCIETY OF
AGRICULTURAL ENGINEERS (ISAE)**



FIRST CIRCULAR



**10-12
NOV-2025**

59TH ANNUAL CONVENTION

on

Engineering Innovations for Agriculture 5.0

INTERNATIONAL SYMPOSIUM

on

**Mechatronics and Robotics in Pre and Post Production
Agriculture**

Jointly organized by

**Indian Society of Agricultural
Engineers, New Delhi**



**ICAR-Central Institute of
Agricultural Engineering, Bhopal**

**Celebrating
50
ICAR-CIAR
1976-2026
Golden Years of Engineering
in Indian Agriculture**



**ICAR-Central Institute of Agricultural Engineering
Nabi bagh, Berasia Road, Bhopal-462038 (M.P.)**



ISAE Happenings

Scientific Journal Impact Factor (SJIF) of JAEI for 2025 has increased from 8.167 to 8.414

ISAE is happy to inform that Scientific Journal Impact Factor (SJIF) of our journal JAEI for 2025 has increased from 8.167 to 8.414. This year, it's the SJIF maximum value was 8.897 across its database. This means our JAEI is also moving towards maximum values.

Journal of Agricultural Engineering (India)				
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Congratulations to the editorial board led by Dr. Adlul, and all authors and reviewers for the achievement and we wish for its further achievements to greater heights.

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Journal's description

The Journal of Agricultural Engineering (India) [JAEI] [ISSN: 0256-6524 (Print); 0976- 2418 (online)] is an English language, peer-reviewed, subscription-based journal published quarterly by the Indian Society of Agricultural Engineers (ISAE), New Delhi. JAEI publishes original research articles of both theoretical and applied nature, with a special focus on experimental research, new design criteria, mathematical modelling, and innovative approaches and emerging technologies in the fields of agricultural engineering and technology addressing problems of agricultural, food, and biological systems. The journal encourages submission of manuscripts by authors of any country/region, irrespective of their memberships with the ISAE. Only manuscripts of sufficient quality that meet the aims and scope of the JAEI are considered for publication. This journal uses a double-blind review process for the submitted manuscripts. A decision on acceptance / non-acceptance of a manuscript is taken after due consideration of peer-review reports, recommendation of the Editor, and examination of the content of the manuscript by the Editorial Board. Submission of a manuscript to the journal does not guarantee eventual publication in the JAEI. An accepted manuscript is published without any charges towards submission/ processing/ surcharge for length, colour illustrations, or supplementary data. The corresponding author of each published paper is provided with a soft copy of the published article without any charge. Members of the ISAE, however, regularly receive full issues of all volumes of the journal. To encourage submission of high-quality research manuscripts, the ISAE announces each year Best Paper Awards and Best Reviewer Awards.

ISAE Happenings

ISAE Chapter Executive Body (CEB), Bhopal Chapter - Election 2025–28

ISAE – Bhopal Chapter invited nominations, through email (isaebpl@gmail.com), from Life, Corporate and Institutional members of the Bhopal chapter of Indian Society of Agricultural Engineers (ISAE), in good standing as on April 30, 2025, for the following positions of Chapter Executive Body (CEB) of the ISAE, Bhopal Chapter for the term 2025–28.

1. Chairperson
2. Vice-Chairperson (Technical)
3. Vice-Chairperson (Activity)
4. Secretary
5. Joint Secretary-cum-Treasurer
6. Councilor

Complete set of nomination papers includes the following:

- The nomination form duly signed by the proposer, seconder and the candidate,
- Photograph of the candidate
- A brief resume of the candidate including the work plan (not more than 500 words).
- The brief resume will be circulated for the information of the voters.

The nominations need to be submitted to the chapter election committee by email (isaebpl@gmail.com) starting from May 15, 2025. The nominations will be accepted till May 25, 2025 Midnight. For any query/clarification, please write to the Chapter Election Committee at isaebpl@gmail.com

Dr. S. N. Jha, President of the Indian Society of Agricultural Engineers (ISAE), proudly highlights the multifaceted abilities of Agricultural Engineers

Dr. S. N. Jha, President of the Indian Society of Agricultural Engineers (ISAE), proudly highlights the multifaceted abilities of agricultural engineers. According to Dr. Jha, these professionals are not confined to traditional agricultural roles but are truly versatile in nature. He emphasizes that agricultural engineers can excel in diverse domains including electrical, electronics, civil, and mechanical engineering.

His message is clear and inspiring—Agricultural Engineers possess the knowledge, adaptability, and innovation needed to contribute meaningfully across a wide spectrum of engineering disciplines.



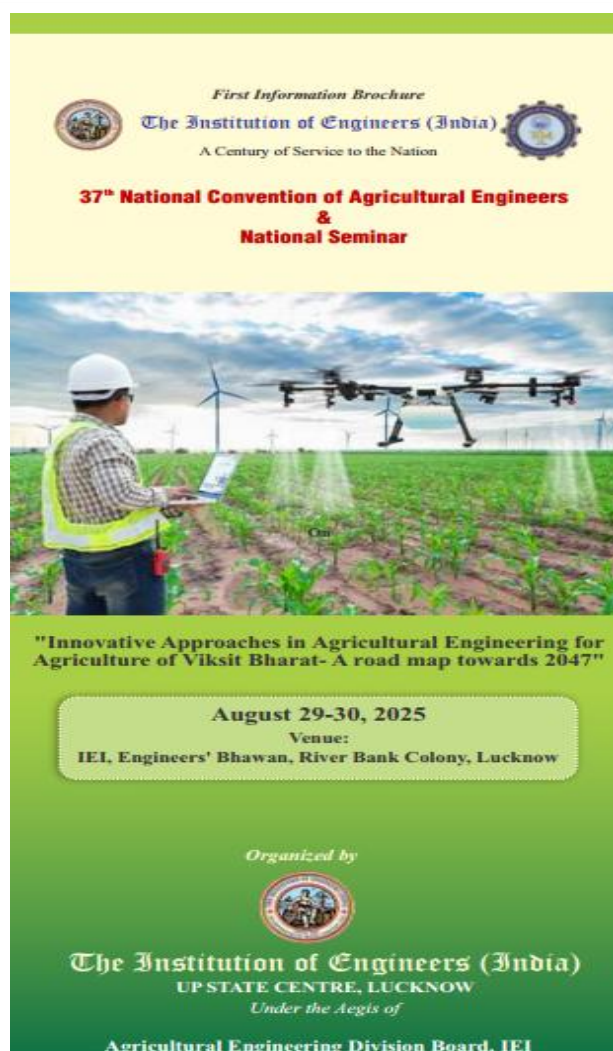
37th National Convention of Agricultural Engineers and National Seminar on "Innovative Approaches in Agricultural Engineering for Agriculture of Viksit Bharat- A road map towards 2047"

The 37th National Convention of Agricultural Engineers and National Seminar on "Innovative Approaches in Agricultural Engineering for Agriculture of Viksit Bharat- A road map towards 2047" is being organized during August 29 (Sunday)-30 (Monday), 2025, at Lucknow by Uttar Pradesh State Centre of the Institution of Engineers (India).

Theme : Agriculture of Viksit Bharat has to be able to ensure not only food and nutrient security for its population, but a decent livelihood opportunity for population dependent upon agriculture. It has to account for changing aspiration of rural youth, changing food basket/food habits of prosperous India and overall socio economic conditions. This will require a new innovation approach to develop technologies in all fields of agriculture and specifically agricultural engineering. To drive Agricultural Engineering Innovations for Viksit Bharat Agriculture, a strategic approach should focus on sustainability, technology integration, and farmer-centric solutions. It has also to ensure significant participation of rural youth in farming which has to meet their expectation of better income with standard of life at par with their urban counterparts. The innovations should make farming attractive enough to significantly reduce migration to urban areas which is necessary to improve life in future cities.

In view of these challenges the innovation strategy should focus on Technology Democratization for all farm sizes, Environmental Sustainability with low-carbon solutions, and Economic Empowerment through better market and finance access. This multi-pronged approach can help transform Indian agriculture into a modern, resilient, and profitable sector, aligning with the vision of Viksit Bharat.

It is expected that this convention will have participation from leading agricultural engineering institutions as well as from government organizations. The outcome of convention will be a roadmap for agricultural engineering innovation with holistic and Inclusive approach which can be used by our research institutions as well as Higher Education Institutions.



37th National Convention of Agricultural Engineers and National Seminar on “Innovative Approaches in Agricultural Engineering for Agriculture of Viksit Bharat- A road map towards 2047”

Sub Themes:

1. Precision Farming & Smart :Agriculture IoT and Sensors for soil and crop sensors to monitor moisture, nutrients, and pest presence in real-time; Drones and GIS to Implement drones for precision spraying and Geographic Information Systems (GIS) for mapping soil health; Data Analytics for leveraging AI and machine learning to predict yields, disease outbreaks, and optimize input use.
2. Mechanization for Small & Marginal Farmers: Affordable Machinery for small landholders; Automation to Introduce semiautonomous tractors and robotic weeders for labour efficiency, Use of alternate energy sources for machinery operation; and Electric powered tractors to reduce carbon footprints of future agriculture.
3. Climate-Resilient Farming Techniques: Water Management to innovate in drip irrigation, rainwater harvesting, and smart water controllers; Climate Forecasting to Integrate weather prediction models to guide sowing and irrigation schedules; and Land Management Technologies to develop degraded wastelands and restoration of Wetlands
4. Post-Harvest & Food Processing Innovations: Cold chain Infrastructure having solar-powered cold storage to minimize losses, developing portable processing units for rural areas; Packaging Solutions for using biodegradable packaging to extend shelf life and reduce waste.
5. Renewable Energy Integration: Solar Pumps and micro grids for challenged ecologies; Biogas and Waste-to-Energy with emphasis on converting crop residues into energy to reduce stubble burning.
6. Agri-Fintech and Digital Platforms: Block chain for Supply Chains to ensure transparency and traceability from farm to market; Improving credit Access by developing AI-based credit scoring for instant loans to farmers; Market Linkages by expanding digital marketplaces for better price discovery and direct sales.
7. Capacity Building and Skill Development: Strengthen our KVKs to offer training on modern techniques and equipment handling; Mobile Advisory services to provide real-time agronomy advice via mobile apps; and R&D collaboration to strengthen ties between agricultural universities and start-ups.
8. Circular Economy: Organic and Natural Farming for providing better quality food; Waste Utilization to monetise agri waste for increasing farmers' income as well as protecting environment; Carbon Credits to support farmers in earning credits for sustainable practices

World Environment Day 2025 : Shrink Your Plastic Footprint

Led by the United Nations Environment Programme (UNEP) since 1973, World Environment Day is the largest global platform for environmental outreach. Celebrated in over 150 countries, it unites people to take action on urgent environmental issues. This year, World Environment Day supports UNEP's campaign to #BeatPlasticPollution, focusing on real solutions to one of the planet's most fixable problems. The campaign urges everyone to refuse, reduce, reuse, recycle and rethink how we use plastic in daily life.

“India gives a special attention to plastic waste management. We are resolute in our efforts to reduce single use plastic and micro-plastic pollution for sustainable development along with a prospering biodiversity.” ~

Prime Minister Shri Narendra Modi



India's Key Initiatives to Manage Plastic Waste

India has adopted a strong legal and policy framework to tackle the plastic waste crisis. Through laws, reforms and missions, the country is working to ensure responsible plastic use, recycling, and disposal. The Ministry of Environment, Forest and Climate Change, under the Environment (Protection) Act, 1986, has notified various waste management rules to ensure the environmentally sound handling of waste. One such rule is the Plastic Waste Management Amendment Rules, 2021, which strengthens regulations on plastic waste to promote sustainability and reduce pollution. Key provisions under the Plastic Waste Management Amendment Rules, 2021:

- ❖ Ban on Identified Single-Use Plastics: Items with low utility and high littering potential banned from 1st July 2022.
- ❖ Ban on Thin Plastic Carry Bags: Plastic bags with thickness less than 120 microns banned from 31st December 2022.
- ❖ Ban on Lightweight Non-Woven Bags: Non-woven plastic carry bags below 60 GSM (grams per square meter) banned from 30th September 2021.
- ❖ State-Level Action: In addition to national rules, many States and UTs have issued their own orders and notifications for partial or complete bans on single-use plastics and carry bags.

(Source: PIB)

World Environment Day 2025 : Shrink Your Plastic Footprint

ICAR-CRRI Observes World Environment Day 2025 with Tree Plantation Drive

ICAR-Central Rice Research Institute, Cuttack, marked World Environment Day 2025 by organizing a tree plantation drive focused on this year's global theme "Combating Plastic Pollution." The initiative aimed to promote environmental sustainability and raise awareness about eco-friendly practices. Dr. M.J. Baig, Former Director, ICAR-CRRI, graced the occasion as Chief Guest and led the plantation activity, emphasizing the importance of green initiatives in mitigating the adverse effects of pollution.

Dr. G.A.K. Kumar, Director, ICAR-CRRI, also took part in the drive, planting saplings and encouraging staff and researchers to actively contribute to environmental conservation. The event reflected the institute's ongoing commitment to reducing plastic use, conserving natural resources, and fostering a cleaner and more sustainable environment.

The enthusiastic participation of scientists, staff, and students underscored ICAR-CRRI's dedication to integrating sustainability into agricultural research and institutional practices.

(Source: ICAR-Central Rice Research Institute, Cuttack)



World Environment Day Celebrated at ICAR-CPCRI, Kasaragod with Tree Plantation Drive

ICAR-Central Plantation Crops Research Institute, Kasaragod, in collaboration with the Kerala Forest and Wildlife Department, observed World Environment Day with a tree plantation drive focused on the theme "Ending Plastic Pollution." The event reaffirmed the institute's commitment to environmental sustainability through active participation by dignitaries, staff, and farmers. The Chief Guest, Smt. Baby Balakrishnan, President, District Panchayat, commended ICAR-CPCRI's impactful research and its contribution to enhancing productivity at the grassroots level through Krishi Bhavans and farming communities.

Dr. K. Balachandra Hebbar, Director, ICAR-CPCRI, highlighted the institute's recognition as a "Green Campus" by Hariitha Mission, Government of Kerala. He emphasized the growing threat of plastic waste, especially in agriculture, and the need for proper disposal practices to prevent environmental degradation. He also reiterated the institute's focus on promoting eco-friendly agricultural practices and building climate-resilient farming systems.

A highlight of the event was the felicitation of the institute's sanitation workers, who were honored for their vital role in maintaining campus cleanliness and hygiene. The celebration concluded with enthusiastic participation from scientists and staff, underscoring the institute's ongoing efforts in promoting environmental awareness and sustainable agricultural development.

(Source: ICAR-Central Plantation Crops Research Institute, Kasaragod)

World Environment Day 2025 : Shrink Your Plastic Footprint

ICAR-ATARI, Zone VI Celebrates World Environment Day with Focus on Sustainable Agriculture

ICAR-Agricultural Technology Application Research Institute, Zone VI, Guwahati, commemorated World Environment Day with a strong emphasis on environmental stewardship and sustainable agricultural practices. The celebrations began with a sapling plantation drive at the ICAR-ATARI campus, led by Dr. G. Kadirvel, Director along with staff members. Addressing the gathering, Dr. Kadirvel highlighted the need to integrate environmental protection with sustainable agriculture, stating, “Eco-friendly farming is essential, not optional, for ensuring food security and building climate resilience for future generations.” The event was aligned with the ongoing Viksit Krishi Sankalp Abhiyan, a nationwide campaign aimed at transforming Indian agriculture through scientific innovation, efficient resource use, and farmer empowerment.

Krishi Vigyan Kendras (KVKs) under ICAR-ATARI, Zone VI, marked the day by organizing plantation drives, awareness programs, and farmer outreach activities across Assam, Arunachal Pradesh, and Sikkim. The observance witnessed active participation from farmers, scientists, students, and dignitaries, including Mr. Sashi Kanta Das, Member of Legislative Assembly, Raha; Dr. A.R. Aahmed, District Agriculture Officer, Cachar; Mr. Wanki Lobang, Minister of Environment and Forests, Arunachal Pradesh; Dr. Hemant Ghimerey, Deputy Director of Horticulture, Sikkim; and Ms. Vishnu Rai, Deputy Director of Agriculture, Sikkim.

Interactive sessions, expert lectures, and live demonstrations educated participants on climate-smart agriculture, integrated nutrient management, agroforestry, organic farming, and the use of bio-fertilizers. The programs underscored the need to balance food production with ecological sustainability, encouraging the adoption of biodiversity-friendly and low-impact farming practices.

(Source: ICAR-Agricultural Technology Application Research Institute, Zone-VI, Guwahati)

MASU Awards 2025

MASU is welcoming application for 2025 - MASU awards with the approval from Chief Patron (MASU) to recognize the significant contributions of scientists and young researchers working in the field of Agriculture / Horticulture / Forestry / Community Science / Agricultural Engineering etc., to develop innovative solutions aimed at improving the productivity and profitability in agriculture. On this note, MASU invites nominations for 16 different awards for scientists and 8 awards for young researchers, for the year 2025. The members of MASU (on or before 20.06.2025) are eligible to apply for the awards. The last date for submitting the application is 20.06.2025.

1. Only Life members of the Madras Agricultural Students' Union (on or before 20.06.2025) are eligible to apply.
2. MASU life members who were awarded MASU awards in the year (2022, 2023 & 2024) are not eligible to apply for the award
3. The application must be submitted through Google Forms only.
4. Only MASU members are eligible to apply for the awards in specified age groups .

The awards will be presented during Madras Agricultural Students' Union day celebration on July 14th, 2025.



Union Agriculture Minister Shivraj Singh Chouhan Visits Central Institute of Agricultural Engineering in Bhopal

Union Minister of Agriculture, Farmers' Welfare and Rural Development, Shri Shivraj Singh Chouhan, visited the ICAR–Central Institute of Agricultural Engineering (CIAE) in Bhopal on 22 June 2025. Addressing scientists, students, and staff at the institute, he praised CIAE's contributions to the development of Indian agriculture. He emphasized the need to accelerate the development of affordable and farmer-friendly technologies for smallholders to ensure that modern mechanization reaches every corner of the country.



While reviewing the institute's recent achievements, Shri Shivraj Singh Chouhan said that keeping in view the diverse needs across regions, a mechanization roadmap for the next ten years should be formulated through the institute's All India Coordinated Research Project (AICRP) network. He stated that such a step would significantly advance the Viksit Bharat Abhiyan (Developed India Campaign).

The minister emphasized the development of agricultural machinery powered by small engines or alternative energy sources, as well as sensor-based systems, so that all categories of farmers can benefit inclusively. He underlined that technological innovations in farming must reach the fields in alignment with farmers' actual needs. Shri Shivraj Singh Chouhan also called for organizing farmer fairs across the country and consultations with stakeholders to develop a national mechanization strategy. He added that such events would help farmers learn about new technologies and find solutions to their problems.

He also highlighted the importance of food security, soil health, and the "Lab to Land" transfer of technology. He said that for sustainable agricultural growth, it is crucial to focus on food security and soil health to develop a healthy and sustainable farming system.

During the visit, the minister observed various technologies developed by the institute, including the tractor-operated plastic mulch layer-cum-planter, and appreciated their potential. He noted that such innovations would reduce both labor and cost for farmers while increasing productivity. Shri Shivraj Singh Chouhan concluded by stating that in order to make Indian agriculture self-reliant and developed, there must be a focus on technological innovation, soil health, food security, and mechanization based on farmers' needs. He urged all scientists and institutions to work collaboratively so that even small farmers are not left behind in benefiting from these technologies.

This visit served as a source of inspiration for the scientists and staff of the institute and is expected to give new direction to the mechanization and technological advancement of Indian agriculture in the coming years.

Union Agriculture Minister Shivraj Singh Chouhan Visits Central Institute of Agricultural Engineering in Bhopal

Tractor-Operated Plastic Mulch Layer-cum-Planter Developed by ICAR-CIAE

The plastic mulch layer-cum-planter, developed by ICAR-CIAE, performs multiple operations that are otherwise manually difficult, time-consuming, and labor-intensive, requiring nearly 29 man-days per hectare. These operations include creating raised beds, laying drip laterals and plastic mulch, and sowing seeds under the mulch.

To perform all these tasks simultaneously, the institute developed this tractor-operated implement. It uses the tractor's hydraulic system to power a hydraulic motor (385 Nm) and a chain-sprocket transmission system to drive an eccentric slider-crank mechanism. The seed metering unit uses a vacuum created by an aspirator blower powered by the tractor's PTO.

The eccentric slider-crank mechanism converts the rotary motion of the driving disc into vertical motion via a connecting rod, which opens a "D" profile planting jaw in the soil.

The pneumatic seed metering plate and the slider-crank mechanism are synchronized so that the seed picked by the metering plate is placed into the closed planting jaw, which holds the seed and releases it into the plastic mulch at the appropriate point.

The machine has an effective field capacity of 0.2 hectares per hour and an operational efficiency of 74%, based on a speed of 1.7 km/h and a working width of 1 meter. The total cost of the machine is ₹3,00,000, with an operating cost of ₹1,500 per hour. Its payback period is 1.9 years (444 hours), and the break-even point is 70 hours per year.

The machine offers adjustable row-to-row spacing (0.5 to 0.9 meters) and plant-to-plant spacing (0.2 to 0.6 meters). Compared to the existing machines, it saves 26 man-days per hectare (89%) and ₹6,600 per hectare (43%) in operational costs.

This machine is ideal for planting high-value crops such as melon, cucumber, sweet corn, baby corn, green peas, okra, beans, etc., using plastic mulch



Viksit Krishi Sankalp Abhiyan

The Prime Minister Shri Narendra Modi addressed the Viksit Krishi Sankalp Abhiyan via video conferencing on 29th May 2025. Delivering his remarks on the occasion, he remarked that the launch of the Viksit Krishi Sankalp Abhiyan as a significant initiative for farmers and an unique effort to support agricultural development. The Prime Minister highlighted that as the monsoon approaches and preparations for the Kharif season begin, over the next 12 to 15 days, 2000 teams consisting of scientists, experts, officials, and progressive farmers will travel across 700+ districts and reach millions of farmers across villages. He extended his best wishes to all farmers and participants in these teams, acknowledging their dedication to strengthening India's agricultural sector.



Highlighting that agriculture has traditionally been a state subject, with each state formulating policies and taking initiatives for farmers' welfare, Shri Modi emphasized that however with rapidly changing times, India's agricultural sector also requires significant transformation. He remarked that Indian farmers have achieved record production, filling grain reserves, but the market dynamics and consumer preferences are evolving. He asserted that it is imperative to bring modern reforms to agricultural systems in collaboration with states and farmers. Shri Modi noted that under this campaign, scientific teams will transition from lab to land, bringing comprehensive data to farmers and equipping them with advanced agricultural knowledge. He emphasized that these teams will stand ready to assist farmers before the Kharif season begins.

Underlining the significant research advancements made by India's agricultural scientists over the decades, emphasizing their positive impact on farming outcomes, the Prime Minister praised progressive farmers who have successfully experimented with new techniques, achieving impressive yields. Underscoring the importance of ensuring that scientific research and successful farming practices reach the broader farming community, the Prime Minister noted that while efforts have been ongoing, there is now a need to accelerate these initiatives with renewed energy. "Viksit Krishi Sankalp Abhiyan presents a valuable opportunity to bridge this knowledge gap, enabling farmers to benefit from cutting-edge agricultural insights", the Prime Minister stated.

Viksit Krishi Sankalp Abhiyan

Shri Modi emphasized that for a Viksit Bharat, India's agriculture must also evolve, highlighting several key focus areas of the central government aimed at transforming the agricultural sector. He outlined critical issues, including ensuring fair prices for farmers' produce, strengthening the agricultural economy, and aligning crop production with national requirements. "India must not only fulfill its own needs but also emerge as a global food supplier", stated Shri Modi, remarking that tackling climate change challenges, enhancing grain production with minimal water use, protecting soil health from harmful chemicals, modernizing the farming techniques and taking science and technology to the fields are essential. He emphasized that over the last 10-11 years, the government has undertaken extensive efforts in these areas. He urged all participants in the campaign to maximize farmer awareness, ensuring they are well-informed about modern agricultural advancements.

Stressing the importance of providing farmers with additional sources of income beyond traditional agriculture, the Prime Minister highlighted key initiatives aimed at expanding opportunities for farmers. He remarked that installing solar panels along field boundaries can generate additional revenue. He noted the impact of the Sweet Revolution, stating that beekeeping is benefiting farmers and must be expanded to involve more participants. The Prime Minister also stressed the need to convert agricultural residues into energy, transforming waste into wealth. He highlighted the significance of identifying suitable areas for cultivating 'Shri Anna' and enhancing value addition in agricultural products. Prime Minister further pointed out that even non-milking cattle are now contributing to the economy through the Gobardhan Yojana, which creates income-generating opportunities. He called for widespread farmer awareness about these innovations to ensure maximum participation and benefits.

"India's agriculture must become a cornerstone of a developed India", emphasised Shri Modi underscoring the magnitude of this mission. He urged farmers to actively engage with visiting scientists, encouraging them to ask questions and seek valuable insights. Shri Modi called upon scientists and officials to recognize the significance of their mission, stating that their commitment must go beyond routine government work and reflect a spirit of national service. He urged them to address farmers' queries comprehensively while also documenting their valuable suggestions. "Viksit Krishi Sankalp Abhiyan will open new avenues of progress for India's farmers, driving modernization in agriculture", declared Shri Modi and concluded by extending his best wishes to all the stakeholders.



Viksit Krishi Sankalp Abhiyan

This 15-day nationwide campaign was launched on May 29 in Odisha in the presence of the Union Minister himself. Since then, Shivraj Singh Chouhan has interacted with farmers across Odisha, Jammu, Haryana, Uttar Pradesh, Bihar, Maharashtra, Uttarakhand, Punjab, Madhya Pradesh, Gujrat, Karnataka, Telangana, and Delhi.

This program aims to provide farmers with research-based insights for advanced agriculture, tailored to their regional needs, climatic conditions, and soil fertility. Simultaneously, it seeks to identify and resolve the practical problems faced by farmers, helping to shape the direction of future agricultural research and policies.

"If the Agriculture Minister remains confined to the ministry alone, a proper assessment of the situation is not possible. That is why, through the 'Viksit Krishi Sankalp Abhiyan', we are reaching out to the fields and interacting directly with farmers. Across the country, 2,170 scientific teams are visiting villages and engaging in

dialogue with farmers. When we talk to farmers in the fields, their real needs come to light. Based on these needs, not only will the direction of research be determined, but schemes will also be formulated accordingly." – Shivraj Singh Chouhan, Union Minister of Agriculture & Farmers' Welfare and Rural Development.



Viksit Krishi Sankalp Abhiyan

As part of the 'Viksit Krishi Sankalp Abhiyan', Union Minister of Agriculture, Farmers' Welfare and Rural Development Shri Shivraj Singh Chouhan visited Amargarh in Patiala, Punjab, where he inspected various agricultural machines, tools, and equipment at a farm machinery factory.



Union Minister Shivraj Singh Chouhan Visits Agricultural Machinery Factory in Patiala

- India to manufacture farm machinery for domestic and global markets – Shri Shivraj Singh
- Machines now available for both harvesting and transplanting – Shri Shivraj Singh
- Affordable machinery for small landholders is essential – Shri Shivraj Singh
- Prosperous farmers and developed agriculture is our goal – Shri Shivraj Singh

Minister, emphasised that agriculture is the backbone of the Indian economy. In the current fourth quarter, India achieved a GDP growth rate of 7.5%, with the agriculture sector contributing 5.4%. Agriculture accounts for over 18% of the national economy and remains the primary livelihood source for nearly 50% of the population.

He highlighted key agricultural priorities: ensuring food security for 1.45 billion people, providing nutritious diets, making farming profitable, and positioning India as a global food basket.

Shri Shivraj Singh Chouhan concluded by saying that a detailed discussion on mechanization will be held in the future, involving stakeholders from the industry sector to provide new direction. He expressed satisfaction that India is now capable of manufacturing globally competitive farm machinery. “Solutions to farming challenges will be determined through direct dialogue with farmers, ensuring India progresses and sets an example for the world,” he said.



Annual Workshop of FMTCs & FMTTIs

An Annual Workshop of FMTCs & FMTTIs was organized from 19th -20th June 2025 at GKV, Bangalore, Karnataka, to review the ongoing activities of Farm Machinery Training Centres (FMTCs) established at SAUs, IITs, ICAR institutes, and State Government Departments.

The workshop witnessed the participation of:

- ❖ Senior officers from the M&T Division, MoA&FW, GoI.
- ❖ Regional Directors and representatives from all four FMTTIs
- ❖ Head & Representatives of FMTCs across the country
- ❖ Scientists from GKV, Bangalore

The inaugural session was graced by distinguished dignitaries:

- Dr. K.C. Narayanaswamy, Vice Chancellor (I/C), UAS Bangalore
- Ms. S. Rukmani, Joint Secretary (M&T), MoA&FW, GoI
- Dr. H.S. Shivaramu, Director of Research, UAS Bangalore
- Dr. G.T. Puthra, Director, KSDA, Govt. of Karnataka
- Dr. V. N. Kale, Additional Commissioner (M&T), GoI

Key discussions during the workshop included:

- Assessment of individual FMTCs activities related to testing and training, including the types of testing conducted, physical achievements, revenue generated, pendency of applications, uploading of test reports on the web portal, and other developmental initiatives undertaken.
- Ensuring transparency in testing procedures, timely assessment of pendency, and the identification of future infrastructure and technical requirements to enhance operational efficiency.

The event served as a valuable platform for collaborative review, knowledge exchange, and strategic planning to strengthen agricultural mechanization through the FMTCs and FMTTIs network at the National and Global levels.



**UNIVERSITY OF AGRICULTURAL SCIENCES,
BANGALORE**



**Annual Workshop of FMTCs and FMTTIs, GKV, Bangalore
19th to 20th June 2025**

Annual Workshop of FMTCs & FMTTIs

Glimpses From the Workshop



Award's



Dr. P. C. Vengaiah(LM9885), Scientist in charge, ICAR-AICRP Plantation Crops, Dr.YSR Horticultural University, Andhra Pradesh, Received Best AICRP Centre(Plantation Crops) award for the year 2024-25 during Annual group Meeting held at Madurai, 7-9, May 2025.

Achievements

Dr Kailash S Purohit : (A Consultant par excellence)



PhD ('72, UMass)

Food and Biological Process Engineering

His experience includes (15) years at UMass, General Foods, Travenol Labs (Baxter) and Stork plus over (26) years of consulting for the food and drug industry. Specializes in sterilization process engineering R&D and validation services for optimal aseptic, thermal, chemical, irradiation and non- thermal processes.

Special expertise in Bio-Validation, Parametric Release, Process Isolators, HACCP and designing novel processes for sterile product and package manufacturing, including microwaves and high pressure processes, and differential and selective sterilization.

Kailash S. Purohit received his Bachelor's degree in Agricultural Engineering from erstwhile UPAU, now renamed as G B Pant University of Agriculture and Technology, Pantnagar in 1967 and Master's and PhD (Food & Biological Process Engineering) in 1972, from the University of Massachusetts, and worked at FDA's Thermal Process Evaluation Center. He began his industrial career in 1974, at the General Foods Technical Center in New York investigating Retort and Microwave processes for sterilising foods in flexible containers and scale-up of a non-solvent, adsorption process for coffee decaffeination. Dr Purohit had been active at the Universities of Minnesota, Halifax and Guelph in Food Science and in 1993 was Research Professor Food Process Technology, National Center for Food Safety and Technology.

Kailash S Purohit has been a process engineering consultant for over 35 years and has varied experiences in various food, biopharmaceutical and medical device industries. He specialised in the design of aseptic, canning and novel processes for products, packages and sterile manufacturing. He is proficient in addressing regulatory, microbial contamination, sterility assurance, seal integrity and functional degradation challenges and is involved in optimizing and validating preservation processes, control systems as well as conducting Risk Assessments & Hazard Analyses exercises. Dr Purohit began his career at General Foods, USA and was thrown into Coffee Processing almost immediately, as there was a public safety scare with the use of Solvents to Decaffeinate Coffee, as GF used the "old" Water Process to first Decaffeinate a coffee rich extract and remove the caffeine via Solvents from the Extract, and this Caffeine "free" extract was next used to only selectively Decaffeinate fresh Coffee Beans, rich in Caffeine. But a non-solvent process now became necessary and an emergency at GF. He was thrown into the Team to work on finding and commercializing options, FAST. Nothing had trained him on anything at all and he was forced to learn, experiment and scale up, all within 18-24 months. Dr Purohit had to learn Liquid Extraction, Ion Exchange, Absorption and Adsorption processes, how to optimise them and scale them up, all at once. The work was hard, hours long and tensions high, but his Teams succeeded at GF's Hoboken plant across the Hudson in NYC. This is where Dr Purohit got a patent to purify the caffeine from the waste water stream.

In the middle of it all, his first Child was born, and by the time he finished and returned to Corporate HQ, in Tarrytown, NY, his boss had left and he became one of the Decaffeination experts and decided it was not what he wished to do for the rest of his career. So he passed on the opportunities to work on the "ultimate" non-solvent process using CO₂, which is today's standard! In those days, it reminded him of the choices he made, to seek Sterile Manufacture as both his Vocation and Avocation. Those 3 formative years let him learn many new things, reminded him of many Pantnagar challenges, but most of all gave him the confidence that he was indeed capable of doing anything, given an opportunity and a goal. Unprepared as he was, he felt prepared to take on any and all challenges in his life. How true are these words and how sad it is that most folk cease to learn, because they "don't even know what they don't know".

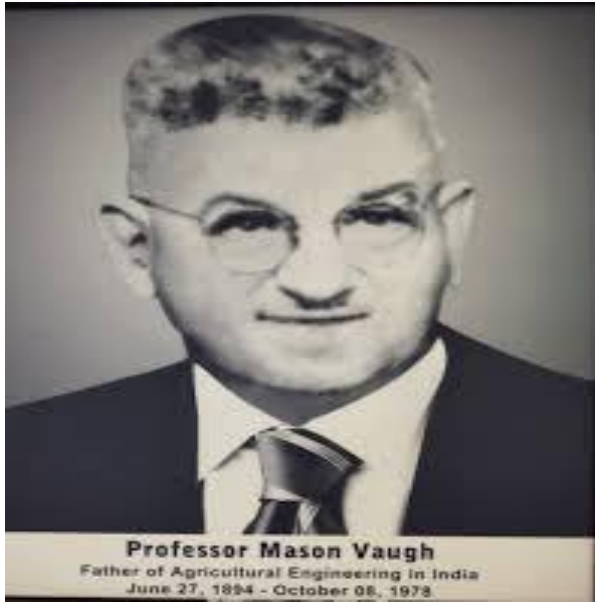
One of the main reasons he was not the most sought-after Consultant in Sterile Manufacturing during his practice, was because he was honest to a fault and not a good mercenary or hired hand. Over time, it was known to the Clients and the corporate sector that he would not just rubber stamp their hidden agendas, or take sides in the Company's internal rivalries or even bend the truth, leave alone break it (or Laws of Physics, Fluid Mechanics, Microbiology or Reaction Kinetics for that matter). It was widely rumoured that "If one asks him the Time, he teaches you how to make a Watch". He accepted their critique as he felt they really didn't even know what they did not know!

Dr Kailash Purohit was really a teacher who tried to remind Clients that if they didn't know How things worked, then they wouldn't ever know how to recognize, trouble shoot or fix things, when they didn't Work. Over time, he actually felt and believed machines, equipment and processing and packaging lines in factories, actually spoke to him, if he listened long enough, carefully and attentively. This is how he really diagnosed and solved Sterile Process problems and Contamination challenges for Clients who let him do so, and he was damn good at it.

Source / Submitted by: Dr R C Maheshwari (Batchmate 1963 Pantnagar) Former Vice Chancellor, SDAU, Gujarat ADG CSC / TC/ PIM/ IPR/ Award Cell and Secretariat Support to the GB, ICAR



Remembrance on birth anniversary of Mason Vaugh



Mason Vaughn (June 27, 1894 – October 7, 1978)

Mason Vaughn was an American agriculturalist who developed the first agricultural engineering department outside North America in 1921 at Allahabad Agricultural Institute.

He has often been called the father of agricultural engineering in India. In his honor Indian Society of Agricultural Engineers (ISAE) established the Mason Vaughn Agricultural Engineering Pioneer Award

Respectful Tributes On 31st Death Anniversary of Prof. CV Paul



Prof Cyril Vincent Paul (29.01.1912-28.06.1995)

Our Respectful Tributes

On the Death Anniversary of Pioneering Agricultural Engineering Educationist, Popular Professor, Mentor and Guide to a large army of professionals (contributed towards institution building with Prof Mason Vaughn)

His legacy endures, it continues to inspire and empower aspiring engineers, ensuring that the future of agricultural engineering remains bright and boundless



New Members

Student Members

Membership No.	Member Name
SM-7324	TEJAA SRI V
SM-7325	KAVYA DHARSHINI S
SM-7326	BAAVANAA R S
SM-7327	SOMA PRABHA K
SM-7328	SHALINI K S
SM-7329	POUSIKA M
SM-7330	MONISHA K
SM-7331	SRINITHI M
SM-7332	SUSMITHA R
SM-7333	THIRUMALAIVASAN R
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