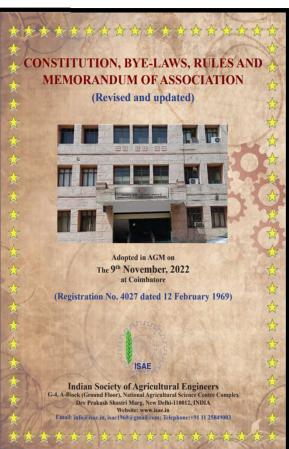
e-NEWSLETTER INDIAN SOCIETY OF AGRICULTURAL ENGINEERS

..... Connecting Engineers in Agriculture

Nov.-Dec., 2022







5600 + Life Members

36 Chapters

2 Scientific Journals

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Message From The President



Dear beloved readers! First of all, I on my own behalf and on behalf of the Indian Society of Agricultural Engineers wish you all a very happy, healthy and satisfying new year 2023. Wish that India with the help of Agrineers be a torch bearer for the world and that should start from 2023 using millet based food as career. Request you all to participate and organize, putting all efforts in celebration of the International Year of Millet. The ISAE has already started celebrating it by printing a new wall calendar having theme "Engineering Interventions in millet" you all who have attend the 56th ISAE convention at Coimbatore, must have received the calendar. Enjoy it, share the joy and increase the same by sharing in family and friends.

Dear ISAEians! I congratulate you all for conglomerating in large number discussion on the issue thoroughly and concretely to make strategy plan to make India the developed country by 2047. I also congratulate to have you a new ISAE logo, new name of journals, revised and updated ISAE Constitution, bye-laws and rules etc., and becoming part of that historic day of the 9th November 2022 at Coimbatore. **Dear friends!** Probably as per available record, it is the first time, a full constitution, bye-laws and rules were circulated, invited comments and thoroughly discussed through different committees and finally in AGM in large numbers and adopting them. I thank each and every one for coming in record numbers and supporting the new initiatives and participating in decision making.

Dear Agrineers! During the period several meetings, discussion and presentation for betterment of professional development and the development of Indian Agriculture were held. A meeting with deans of Agricultural Engineering colleges was held and action points for improvements in quality of graduate Agrineers and mechanization were finalized. Persuasion for establishing Agricultural Engineering directorate by them in respective states were also requested. Issues were also discussed in a meeting in M & T division of DoFW of the Government of India during these months.

Friends! New Avatar of Agricultural Engineering Today you have already enjoyed. Now you will get in new year a true Online system for publishing Journal of Agricultural Engineering (India) and application for indexing of JAE(I) in Scopus and web of Science. I again request your support to submit your quality research papers in JAE(I) in large number to have more and more citations and thus NAAS rating. Please come out and contribute for all around development of the society in general and the JAE (I) in particular.

S N Jha President, ISAE





From the Chief Editor'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/ Agrineer.

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 has been taken by the EC in this regards. We congratulate the ISAE for amended Constitution, Byelaws and rules which was announced in the Annual General Body Meeting 2022. Further we are glad to inform that 56th Annual Convention of Indian Society of Agricultural Engineers (ISAE) was grand success with record number of abstracts and record number of participants.

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 Nov.-Dec. 2022 across the country by various agricultural engineering institutes for dissemination of knowhow to all stakeholders. I hope the content on various technologies through this enewsletter will give takeaways on latest technologies to Agricultural Engineering professionals in introducing and implementing the same.

With our best wishes for a constructive and fruitful New Year 2023.

Chandra Shekhar Chief Editor



e-Newsletter Editorial Board 🔬



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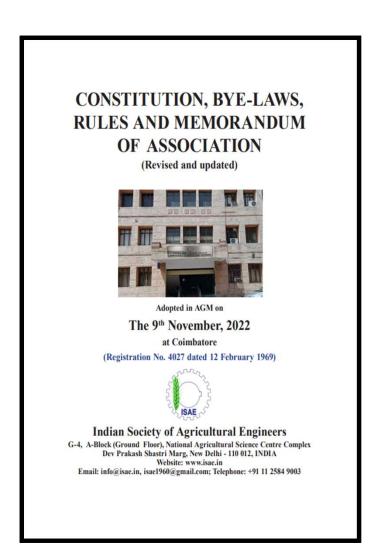


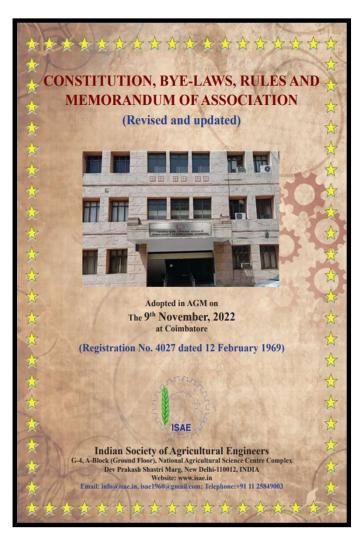
Annual General Body Meeting 2022

During the 56th ISAE convention and international symposium organised during 9-11 Nov at TNAU Coimbatore, Annual General Body meeting of ISAE was also called on the evening of 9th Nov. 2022.

During the General Body meeting following agendas were discussed

- 1. Ratification of Modified ISAE logo, tagline, change in name of JAE to JAE(India), New/revised format of AET and making it open access, ISAE wall calendar 2023, rent agreement of ISAE flats' renewal, Editorial boards of JAE(I) and AET, removal of Jain irrigation award
- 2. Information/discussion on work carried out and vacancies of Agricultural Engineers/ opening of Directorate in each state and B. Tech. in each IIT/NIT
- 3. Discussion and adoption of circulated Draft Revised and updated Constitution, Byelaws and rules







The 56th Annual Convention of Indian Society of Agricultural Engineers (ISAE)

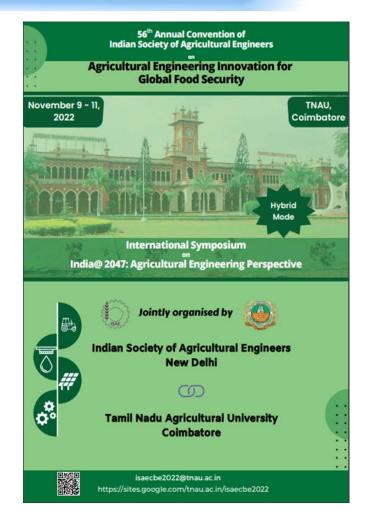
The 56th Annual Convention of Indian Society of Agricultural Engineers (ISAE) was conducted during 09.11.2022 to 11.11.2022 at Agricultural Engineering College and Research Institute, Tamil Nadu Agricultural University, Coimbatore, Tamil Nadu.

Theme of Convention

The theme of the annual convention is Agricultural Engineering Innovation for Global Food Security. The theme is chosen in the context of the pivotal role played by Agricultural Engineers in ensuring India's food security in present day scenario.

Theme of International Symposium

The theme of the International Symposium is India @ 2047:Agricultural Engineering Perspective. The theme has been selected in line with the future trends and development in Agricultural Engineering domain gearing towards meticulous planning and interventions in precision and smart farming by employing advanced cutting edge technologies like robotics, Artificial intelligence, machine learning and automation.



In this convention 525 Indian and 10 Foreign delegates participated. During the convention record number of abstracts were received (758 abstracts), with record number of participants (535 Nos.), four themes and 18 sub-themes encompassing domains of Agricultural Engineering.

In the convention following specific recommendation made to address the gaps:

- Development of Artificial Intelligence and Robot based unmanned machines, tools, instruments to perform pre- and post- production farm and off farm operations.
- Expansion of AI based automated irrigation systems for precise application of necessary inputs at precise time
- Searching alternatives for fuels/ gases, in addition to food, feed and fibers.
- Establishment of National institutes on Agricultural Robotics & AI, Food Safety & Quality Sensing and Secondary Agriculture





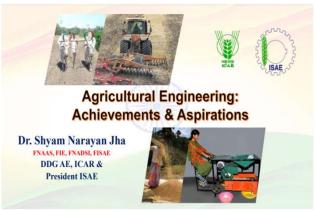
The 56th Annual Convention of Indian Society of Agricultural Engineers (ISAE)

The major thrust was given on artificial intelligence & robotic in farm mechanization and creation of village economics zones to have agro-processing centres grain/feed/fodder bank, marketing yards, agri clinics in rural areas.

A mobile app was created for the first time for ISAE convention to use of the participants to get to know about the time / day of the presentation, details about the key note address / lead papers, location of the venue and the directions to reach there. The mobile application was well appreciated by the participants.

In the International Symposium, the President ISAE made a presentation on Agricultural Engineering: Achievements and Aspirations in which achievements in , Farm Mechanization & Energy, Irrigation, Soil and Water Engineering, Post Harvest processing & value addition was discussed and further impact of developed technology, aspirations and way forwarded was presented.











The 56th Annual Convention of Indian Society of Agricultural Engineers (ISAE)









@ TNAU, Coimbatore | Nov. 9 - 11, 2022

56th Annual Convention of ISAE

AGRICULTURAL ENGINEERING INNOVATION FOR GLOBAL FOOD SECURITY INTERNATIONAL SYMPOSIUM

INDIA @ 2047: AGRICULTURAL ENGINEERING PERSPECTIVE



Inaugural Session - Lighting of Lamp by dignitaries



Key-Note Address by The Vice-Chancellor, TNAU



Presidential Address by Dr. S. N. Jha, President, ISAE & DDG (Agrl. Engg.), ICAR



Release of Technical Compendium of 56th Annual Convention (750 Abstracts)



Release of ISAE - New Logo by the Dignitaries



Address by Chief Guest Dr. Himanshu Pathak, Director General (ICAR) & Secretary (DARE)



Address by Guest of Honor -Thiru. C. Samayamoorthy IAS., APC and Secretary to Govt., Dept. of Ag.&FW, GoTN



Distribution of ISAE Awards



Industrial Exhibition



International Symposium -Expert Lectures



Industrial Session



ISAE Annual GBM



Cultural Programme by the Students of TNAU, Cbe



Technical Session



Distribution of Awards by Dr. R. Selvam, IAS, Chief Guest - Valedictory Session



Honoring the Convener & Secretaries of 56th Annual Convention by ISAE





ISAE Happenings

The 12th & 13th EC Meetings on the 5th Nov & the 4th December Respectively

In the meetings action taken on previous EC meetings were discussed/ appraised and various discussion for action were made, highlights of which are as under:

- 1. The revised list of awards and awardees' names were put up by Secretary General and was approved for further action
- 2. The name of Dr. Devbandhya Mohapatra, Principal Scientist CIAE Bhopal was approved to keep as another member of publication/section head in online publication system
- 3. Report of Dr. Kanchan Singh Committee for enquiring complain of Dr. Kamble was put up by the president and discussed in the meeting. The steps suggested for better transparency in election have already been taken care of in the Revised and Updated ISAE bye-laws and rules
- 4. The 56th Annual Convention of Indian Society of Agricultural Engineers on Agricultural Engineering Innovation for Global Food Security and International Symposium on India@ 2047: Agricultural Engineering Perspective was organized in a grand way with active participation of all stakeholders. In the Annual GB meeting of the society the draft ISAE constitution was presented. It was decided in AGB that the revised ISAE constitution is accepted on the basis of referendum for one point i.e. donating Rs.5000/- by the members selected as Fellow ISAE. The result of the referendum was read out by the President with 40 in favor and 9 against. Hence, it was decided that the revised ISAE constitution will be printed soon and comes into effect immediately.
- 5. Dr. A. Raviraj, Dean (Agrl. Engg.), Agricultural Engineering College and Research Institute, Tamil Nadu Agricultural University and convener of last ISAE convention at Coimbatore could not join the meeting due to unavoidable engagements. However, it was suggested that the Organizing team will be apprised about the concern of the EC regarding the audited account of the convention.
- 6. The pending dues from Punjab Chapter and Bihar Chapter were not cleared after several reminders. Once again it was decided that both the chapters may be informed to do the needful to clear the pending dues as soon as possible.
- 7. It was suggested that the asset registrar is to be maintained in the ISAE HQ so that software and equipment can be enlisted and physically verified annually.
- 8. In one of the previous meeting it was decided that membership card is to be issued to all the Life Member (LM). The mode of printing and lamination of the membership card are bing explored and same will be done on priority.
- 9. the President desired to make an annual activity plan by both the Vice-Presidents for 2023 and present in the next EC for approval, that need to be uploaded on ISAE website by the middle of the January 2023.



ISAE Happenings

The Third ISAE Executive Council Meeting Held On The 8th Nov

The 3rd Executive Council meeting was held on 08.11.2022 before the 56th ISAE annual Convention and International Symposium at TNAU Coimbatore (the pre-evening of the said Convention) The meeting was chaired by the President, ISAE and coordinated by the Secretary General, highlights of which are as under:

- 1. Dr. Amrish Kumar, VP Technical Council presented the details of the technical activities conducted the technical council the society during the period and discussed each issue and initiative in details. All council members applauded the intensive activities organized by the technical council of the ISAE and approved the same
- 2. Dr. D. M. Kadam, VP Activity Council presented the entire activities of this council and discussed the issues and problems being faced in taking new initiatives by the society. The Executive Council members clapped for an extended period and especially thumped-up for getting more than 500 members enrolled and made all chapters active during the period in the society and approved the activities.
- 3. The Secretary General presented the entire combined report of Technical and Activity Councils of ISAE along with administrative measures/appointments/initiatives/MoU signed by rentee /details of the present convention being organized etc. The executive council approved the report of the Secretary General as presented. The secretary General with the help of the Director Award presented the list of the Awardees selected through the existing procedures of the society and approved by the Executive committee to the Executive council for ratification. The secretary General also presented the modified new logo, tagline, change in name of JAE to JAE (India), new/revised format of AET and making it open access, final printed wall callender-2023, rent agreement of ISAE flats, Editorial board of JAE(I), AET, and also keeping some nominated persons as publication heads of the council.
- 4. The president in addition to above himself informed the Executive Council about various activities taken up by the society during the period. Some of them are: writing letters to different state Govts. for Agri Engineering Vacancies, letters by the honourable Minister Shree Rupala ji for opening of Directorate of Agricultural Engineering in each state, letter to Hon'ble minister for more Agri-Engineering Departments in IIT/NITs by the president and development in these directions. Starting B. Tech. Programme in more places, huge vacancies in different states/private organizations, expansion of directorates and replies of various state Governments in these directions were highly appreciated by the Council members
- 5. The Secretary General presented the executive council the final edited new revised and updated ISAE constitution, bye-laws and rules approved by the executive committee
- 6. The secretary General informed that there are two proposals, one from UAS Raichur and other from VNMKV, Parbhani and discussed the pros-and-cons of the both places. The Executive Committee decided to hold the next the 57th Annual convention and International Symposium at UAS Raichur as no convention has held in Karnataka till now. If everything goes well, the next convention may be in VNMKV Parbhani.

The Executive Council members were extremely happy looking so many positive and vibrant changes in the society in the short span of the new executives. They ratified all above as presented and available on the website of the society





ISAE Happenings

General Body Meeting of ISAE Dapoli Chapter

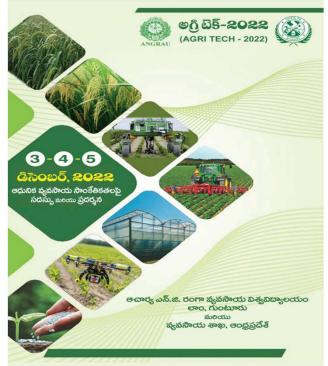
The general body meeting of ISAE Dapoli Chapter was conducted on 06.12.2022, Tuesday at 5.00pm at Seminar Hall, College of Agricultural Engineering and Technology, Dapoli. The meeting was conducted offline as well as online mode through Google meet. The meeting was chaired by Dr. N J Thakor, Chairman ISAE Dapoli Chapter, and following agendas were discussed:

- Confirmation of minutes of Last General Body Meeting.
- Review of administrative functioning of ISAE Dapoli Chapter
- Review of Financial position of the ISAE Dapoli chapter

N. G. Ranga Agricultural University, organized AGRI-TECH 2022,

Acharya N. G. Ranga Agricultural University, is organizing AGRI-TECH 2022 during 03-05, 2022 at Lam Farm, Guntur with Conference, Exhibition and Kisan Mela.

Hon'ble Minister for Agriculture, Horticulture & Cooperation, Marketing and Food Processing, Govt. of Andhra Pradesh, Sri Kakani Govardhan Reddy Garu has consented to be Chief Guest and inaugurate the AGRI-TECH 2022





Meeting with the Deans of Colleges of Agricultural Engineering & Technology

A Meeting was organized by the Agricultural Engineering Division on 19th December 2022 with the Deans of Colleges of Agricultural Engineering & Technology to discuss the following areas:

- 1. Road map for Mechanization /Automation of Agriculture in respective states.
- 2. Discussion on course curriculum of Agricultural Engineering subjects in view of rapid changes in science & technology.
- 3. Any other item of mutual interest.



Dr. S N Jha, DDG (Agril. Engg.), ICAR inaugurated the meeting, welcomed the participants from the SAU's and ICAR-Institutes and made opening remarks with respect to the objectives of the meeting. The meeting began with inputs from the honored members from the Universities & the Institutes. The Deans gave a brief description of the activities being undertaken at their respective Colleges/Universities with reference to the Automation of Agriculture and restructuring of course curriculum. Dr. S N Jha, DDG (Engg.), ICAR deliberated on many aspects related to the theme of the meeting. Some of the important points are as under:

- (i) Syllabus should be ideal as per the demand and the faculty and facilities shall be accordingly employed and created.
- (ii) Faculty & students shall know how to design and develop sensors & circuits for agricultural applications. We may send our faculty for training.
- (iii) We are not innovating; we are only users. Design of camera, design of sprayers, image analysis, software for operation of drones, developing allied equipment is important as we are only reducing ourselves to only users and executors.
- (iv) Placement may be good but placement in non-engineering sectors is not very encouraging.
- (v) The possibility of exemption of B.Tech. / M. Tech. / Ph.D course structure from NEP needs to be explored. We need to explore what IIT's/NIT's are doing in this regard.
- (vi) The post of Agricultural Engineering in KVK was created after lot of efforts by the SMD, but it is held up due to the approvals.

Every university can identify younger faculty members and send them to CIAE/CIPHET and other leading institutes for hands on training on AI/Robotics/Sensors and other important areas as per present day needs. After the discussions and deliberations action points for future action were given to all Colleges





Agriculture Fair and Exhibition Inaugurated in Morena, MP

A 3day mega agricultural fair and exhibition at Morena, organized by the Union Ministry of Agriculture and Farmers Welfare in collaboration with the Madhya Pradesh government and district administration, was inaugurated today by Chief Minister Shri Shivraj Singh Chouhan. The Union Agriculture and Farmers Welfare Minister and regional MP Shri Narendra Singh Tomar presided over the function

In the function, Union Minister Shri Tomar said that Prime Minister Shri Modi wants villages to develop, agriculture becomes profitable and the living standard of farmers to improve.



Shri Tomar said that this is not just a farmers' conclave, but a big training camp, in which during the three days, training will be imparted in different sessions towards advanced farming, use of technology in farming, shifting towards remunerative crops, use of biofertilizer and drone technology, improving the cultivation of mustard, produce paddy with less water, increase the crops of pulses and oilseeds, expand the area of horticulture etc. There will be around 40 sessions in three days. An exhibition has also been put up here, in which all the tools and implements used in farming, from small to large, are displayed. Shri Tomar expressed the hope that the training here will benefit the farmers immensely and they will be able to convert their farming into advanced farming.



During the function Union Minister Shri Tomar inaugurated Hi-Tech Necessary and Tissue culture lab on 12th Nov. 2022 for Farm being developed by National Seeds Corporation Ltd. (NSC) at Morena.









World Soil Day 2022

December 5 is celebrated annually as World Soil Day to highlight the importance of healthy soil and promote sustainable management of soil resources. The event aims to raise awareness of the importance of soil quality for human well-being, food security and ecosystems

Union Agriculture Minister Inaugurates The National Conference on Soil Health Management for Sustainable Farming

Union Agriculture and Farmers Welfare Minister, Shri Narendra Singh Tomar inaugurated the National Conference on Soil Health Management for Sustainable Farming on 05.12.2022. On this occasion, Shri. Tomar said that due to chemical farming and other reasons, soil fertility is getting eroded and climate change is going to be a big concern for the country as well as the world. He said Prime Minister Shri Narendra Modi has concerns about climate change and from time to time prepares plans and keeps working on these plans. He said Prime Minister Shri Modi is committed towards achieving the Sustainable Development Goals (SDGs).



On the occasion of Azadi Ka Amrit Mahotsav and World Soil Day, NITI Aayog in collaboration with GIZ affiliated to the Federal Ministry for Economic Cooperation and Development (BMZ), Germany, Chief Guest Shri Tomar said that the lack of organic carbon in the soil is a serious concern for us. To meet this serious challenge and for better soil health, we have to promote natural farming, which is beneficial for the environment.

The ICAR Institutes pan India also celebrated the World Soil Day - 2022 on the Theme - 'Soils: Where food begins

Caring soil is extremely important for sustaining healthy life on earth. The human/animal health actually lies on good health of soil as it supports healthy plant growth to provide nutritious produce to keep us healthy. A healthy soil would ensure proper retention and release of water and nutrients, promote and sustain root growth, maintain soil biotic habitat, respond to management, resist degradation and act as a buffer for environmental pollution







Indian Council of Agricultural Research (ICAR) through its research institutions and KVKs celebrated this year World Soil Day 2022 under the theme "Soils: Where food begins" on 5th December 2022 throughout the country. The programme aims to raise awareness of the importance of maintaining healthy ecosystems and human well-being by addressing the growing challenges in soil management, increasing soil awareness and encouraging societies to improve soil health. The messages on "World Soil Day" received from Sh. Narendra Singh Tomar, Union Minister of Agriculture & Farmers Welfare and Dr. Himanshu Pathak, Secretary (DARE) & Director General (ICAR) were also deliberated.





On this occasion, various events such as awareness campaigns, lecture, field and lab visit, demonstrations, lecture by experts, group discussion, debating, photography competition, quiz, among the farmers, staff and school children etc. were organized to create awareness among the stakeholders on importance of healthy soil for healthy life besides distributing inputs and soil health cards to farmers. They were also taught about soil testing, importance of soil health cards, integrated nutrient management, *in-situ/ex-situ* decomposing of crop residues to produce high quality organic manure, biofertilizers to improve soil health. A total 76000 participants comprising of dignitaries, scientists, farmers, technical staff, and students attended physically/virtually across the nation.

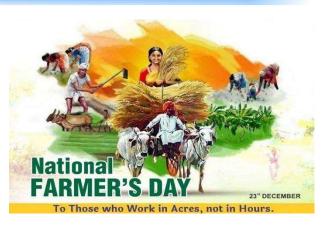
(Source-ICAR)





National Farmers Day

Every year, India observes Farmers' Day or Kisan Diwas on December 23. Farmers are the driving force of the country's economy and deserve to be honored. The day also celebrates the birth of the fifth Prime Minister of India, Chaudhary Charan Singh, who started as a farmer before earning his seat in the government. This day aims to promote awareness of the importance of farmers and their valuable contribution to the overall social- and economic development of the nation.





Union Agriculture and Farmers Welfare Minister Shri Narendra Singh Tomar on the occasion of National Farmers Day on 23rd Dec. 2022 stated that there has been a lot of progress in the agriculture sector in the past years, in this progress the hard work of the farmers, vision of the farmers, the policies of the central government, the state government and the research done by our scientists from time to time have definitely been a big contribution.

Shri. Tomar said that there is a need for change in the traditional practice in agriculture, now it is necessary to test the soil by the farmers so that they can know the correct use of fertilizers, as well as there is accuracy in knowing the amount of irrigation in the soil, for which agriculture reserch center has been functioning for a long time. The Union Minister further said that this method has been added to the curriculum in the new education policy with the help of friends of the Indian Council of Agricultural Research to promote natural farming, which will help in increasing natural farming in the coming times

Speaking on the occasion of Farmers Day, Dr. Himanshu Pathak, Secretary (DARE) Director General (ICAR) said that the Council is presenting this occasion in a special way by organizing various competitions on this occasion. He said that ICAR is the largest national agricultural system in the world with its 113 National Research Centres, 74 Agricultural Universities and 731 Krishi Vigyan Kendras, more than six thousand agriculture and fifty thousand research students. Dr. Pathak said that through its research and development, ICAR has played a leading role in the development of India through Green Revolution, Blue Revolution, Yellow Revolution and Rainbow Revolution in agriculture

(Source-ICAR)





M&M's opens dedicated Farm Machinery Plant at Pithampur

Union Agriculture and Farmers Welfare Minister Shri Narendra Singh Tomar on 15th Nov. 2022 inaugurated the first Greenfield Farm Machinery Plant of Mahindra & Mahindra at Pithampur in Madhya Pradesh.

Mahindra's new farm machinery plant is strategically situated in the industrial city of Pithampur with access to a diverse supplier base, enabling the company to manufacture durable, high-quality, affordable and accessible 'Made in India, for India' farm machinery, marketed in both the Mahindra and Swaraj brands. The plant will also manufacture products for export to global markets in Asia, Africa, Europe and Americas.



On this occasion, Shri Tomar said that "under the leadership of Prime Minister Shri Narendra Modi, today India has reached a point where the world looks at us with hopeful eyes. Shri Tomar said that to make the country fully developed, we have to be fully equipped with technology"

The Union Minister said that the trend of testing quality is increasing today. The credibility of branding and quality is increasing in the country and the world. From the point of view of agricultural equipments, this is the first innovative experiment done by Mahindra & Mahindra. This company has also set the target of export of farm equipments. Shri Tomar said that today the need is that India emerges as the world leader. By supplying to the world apart from meeting the domestic demand, India will develop and its reputation as a world guru will also be secured. Shri Tomar said that Swami Vivekananda had said that the 21st Century would belong to India, and we should also make our own contribution to prove it. He expressed happiness that even after getting higher education and good job abroad, many youths have come back to India and have been attracted towards agriculture.







The 7th India water week-2022 culminates with valedictory function

The 7th India Water Week-2022 which was being held at India Expo Centre in Greater Noida, Uttar Pradesh. culminated with the valedictory function on 05.11.2022 the in august presence of Vice President of India, Shri Jagdeep Dhankhar.



The Union Minister for Agriculture & Farmer's Welfare, Shri Narendra Singh Tomar graced the occasion.

- Technical session held on Reuse & recycle of waste water for water resilience & water market
- Panel discussion held on aligning with nature while ensuring water security
- Side event held on Sustainable development of water commons through community Swaraj
- Session on partnership with community through Panchayat Raj Institution, Self Help Group and NGO

Shri Narendra Singh Tomar, Union Minister for Agriculture & Farmer's Welfare raised the slogan 'Jal Bachao Jeevan Bachao'. Union Minister of Agriculture & Farmers Welfare addressed the gathering and emphasized on the need to bring new and innovative technologies to strengthen agriculture and reduce the use of water in irrigation through various measure.

There was one Technical session on Reuse & recycle of waste water for water resilience & water market. Recycling of industrial return effluents is considered as a viable option to reduce industrial water demand. Issues like usable water sources, drivers for the realisation of drought proof water management option, recycling/ reuse applications and sustainability leading to water supply security are discussed. Lack of awareness in scientific aspects of septic tank design and the need for regular maintenance and upkeep of the same were stressed. Encouraging Public Social Private Partnership with Tech-driven approach with use of spatial technology was advocated.

A side event on Sustainable development of water commons through community Swaraj-A key solution for water security was also organised by M/s. DHAN Foundation. Shri V. Venkatesan, Programme Leader, DHAN Foundation and his team shared their experience and milestones achieved in community swaraj for water security.







CLIMEX-2022: The grand education fair organized by MPKV, Rahuri

The Mahatma Phule Krishi Vidyapeeth (MPKV) organized MPKV Alumni Carnival of Leaders of Industry and Entrepreneurs Meet and Exhibition (CLIMEX) from December 20-22, 2022. Many successful alumni entrepreneurs and industry leaders were on the campus for three days. The event consisted of Education Fair, Job Fair, Technical sessions, Alumni meet and Exhibition of industries owned or led by MPKV alumni. In the Education Fair all the Departments, constituent colleges and affiliated colleges of the university exhibited their strengths in the exhibition. Job Fair got a huge response. Around 500 candidates were interviewed in a single day, 85 shortlisted and 11 got their offer letters on the spot with the highest package of 5.50 lakh. Many entrepreneurs and industry leaders presented entrepreneurship skills to the students during eight technical sessions. The exhibition of products, processes and services of these alumni entrepreneurs and industry leaders was witnessed by thousands of students and farmers during three days. During the alumni meet, it was decided to strengthen the alumni associations of constituent colleges and increase their involvement in the development of the University. It was first of its kind of events in the history of MPKV which was sponsored by Alumni entrepreneurs and industry leaders





Few highlights of the event include

- 1. The event was organized on the platform of NAHEP and Alumni Associations of MPKV, Rahuri, Maharashtra
- 2. The alumni entrepreneurs and industry leaders were given due recognition for their contribution in nation building by felicitating them on the dais.
- 3. DDG Education, ICAR, Dr R. C. Agrawal who was the chief guest for the inaugural function expressed that he would ask every agriculture university in the country to organize such event.
- 4. Dr Anil Bokil, Founder of Arthakranti Foundation was the chief guest for the closing ceremony and expressed huge potential for the country in Food and health sector. Dr Anuradha Agrawal, National Coordinator, CAAST was the guest of Honour.
- 5. One alumnus announced a huge scholarship scheme for the students while the other came up with the scheme of providing 20 lakh seed capital to the start ups in Agricultural Mechanization.
- 6. For the first time in the history of MPKV, affiliated colleges actively participated in and sponsored the event.
- 7. Considering the huge success of MPKV-CLIMEX 2022, Hon Vice Chancellor, MPKV, Dr P G. Patil announced to start entrepreneurship cells at Pune, Dhule, Kolhapur and Rahuri. Sahyadri FPO is expected to play a key role in this venture.



अहमदनगर. महात्मा फुले कृषि विश्वविद्यालय राहुवी में एमपीकेव्ही वलायमेक्स. 2022 कार्यक्रम के तहत कृषि प्रदर्शनी आयोजित की गई. प्रदर्शनी में कृषि आधारित करीव 40 कंपनियों ने अपने स्टॉल लगाए. इसके अलावा विश्वविद्यालय के विविध संशोधन प्रकल्पों के 10 व कृषि महाविद्यालयों के मीं 30 स्टॉल्स लगाए गए. प्रदर्शनी में लगाए गए रोजगार मेले में शागिल हुई 21 नामी कंपनियों ने करीब 2 हजार विद्याविद्यालय के पूर्व एते. पूर्व स्वीयों के साक्षात्कार लिए. प्रदर्शनी के दूसरे दिन कृषि महाविद्यालय पूर्ण, धुक्तिया, कोलहापुर के साथ ही डॉ अनासाहब शिंदे कृषि अभियाजिकी व तकनीकी महाविद्यालय के पूर्व विद्याविद्यों का भी सम्मेलन हुआ. डॉ नानासाहब पवार सभागृह

Apna Samachar Page No. 4 Dec 23, 202 Powered by; erelego.com







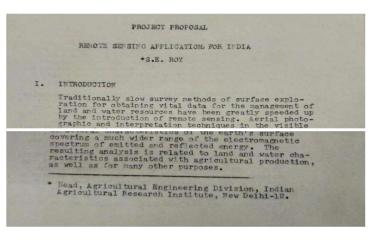
Do You Know?

Dr. Shuniel Emanuel Roy: A visionary first generation Agriculture Engineer, who played a key role in the establishment of National Remote Sensing Agency

Dr. Shuniel Emanuel Roy, Agricultural Engineer from Allahabad Agricultural Institute (AAI), Ph.D. from Pennsylvania University where he worked on photogrammetry.

He was faculty in Allahabad Agricultural Institute and IIT Kharagpur in the early sixties. He served Indian Agricultural Research Institute (IARI) on December 26, 1964 as a Head of the Division of Agricultural Engineering. For a brief period Dr. Roy was on deputation to Peru on an important assignment. After returning from Peru he again served as Head of the Agricultural Engineering Division till 1972.

old document "Remote Sensing An Applications for India" prepared by him in the early 1970s suggests that he was among few in India who initiated work on remote sensing applications. In the early seventies he was establish assigned to Remote Sensing Application Centre in Hyderabad by the Government of India. He played a key role in the establishment of the National Remote Sensing Agency.



He served there for a few years and went to US for further research. He was the man behind starting the PG and PhD programmes in Agricultural Engineering in IARI.

The National Institute of Agricultural Engineering (NIAE) was also his brain child. At the final stage of approval he did not compromise with other professionals at that time. As a result a smaller truncated institute- Central Institute of Agricultural Engineering (CIAE) was established in Bhopal.





Demonstration of farm machinery at NSC Farms

With the objectives of increasing the reach of farm mechanization to small and marginal farmers and to the regions & difficult area where farm power availability is low and to boost up mechanization in the agriculture sector with improved agricultural implements and machinery for enhance the productivity of crops besides reducing human drudgery and cost of cultivation, National Seeds Corporation Ltd. Organised a demonstration of package farm machinery under the scheme on Sub-Mission on Agricultural Mechanization at CSF, Suratgarh on 01.12.2022 and CSF, Sardargarh on 09.12.2022. In this demonstration program more than 150 farmers participated









सब मिशन ऑन एग्रीकल्चर • वैज्ञानिक पद्धति से समय व डीजल की बचत बताई, निदेशक ने खेत में धान का भूसा जलाने से उर्वरकता में होने वाली कमी की जानकारी दी

कृषि की अत्याधुनिक मशीनों का हुआ प्रदर्शन, 150 से अधिक किसानों ने लिया भाग

ा राज्य फार्म सरदारगढ़ में 150 से क किसानों ने फार्म क्षेत्र में रहकर संबंधी जानकारी प्राप्त की। केंद्रीय फार्म सरदारगढ़ में सब पिशन औन ज्या मेंकेनाड़जेशन के तहत तार को कार्यक्रम हुआ। इसमें गास को बार्यक्रम हुआ। इसमें गास को बार्यक्रम हुआ। इसमें

जैविक खेती के बारे में जानकारी दी। धान की कटाई के बाद बिना जुजाई के खेतों में जई बीज का उत्पादन करने के खोतों में जई बीज का उत्पादन करने के प्रकेश का प्रदर्शन किया।
जीरो टीलेज की पद्धति से समय की बचता, जुजाई कम होने से डीजन की बचता व धान के पूसे के डीजन की बचता व धान के पूसे के डीजन की बचता व धान के पूसे के डीजन में तर का किया के बाता था जोने की जानकारी दी। जैतारस फार्म निरंशक प्रियर्ट्शों ने कुषी में काम आनं निरंशक प्रियर्ट्शों ने कुषी में काम आनं कराली आधुक्तिक प्रयोगों व उनके उपयोग के बारे में मित्रसानों को बताया। प्रमादी उद्यान आनंद कुमार ने किसानों को उद्यान प्रमादी में व उत्पादन के स्वरंग में स्मादाशा।

किसानों ने क्षित्र रही हुए, आधुक्ति की उत्पादन व अस्य कृषि से जुड़ी उत्पादन व अस्य कृषी से जुड़ी व्याव उत्पादन व अस्य कृषी से जुड़ी

स्प्रेयर मशीन का फील्ड डेमो देता कर्मचारी ।

सरदारगड़ के फार्म में हुई कृषि संगोद्धी में अरपाधुनिक मशीनों को देखने के लिए बड़ी संख्या में किसान पहुंचे। इस दौरान सुमर सीडर, प्लाऊ जैक, रोटो सीडर, हैणी सीडर, खाद मशीन सहित 15 से अधिक मशीनों का फोक में प्रदर्शन किया गया। पहली के छोटे रूप में ग्रास कटर से काटने की जानकारी दी

गई। बेस्ट डी कंपोजर के प्रयोग से फसलों को बचाने के बारे में बताया गया। जीरो टीलेज पद्धति को राइस बेस्ट के किसानों को बिस्तार पूर्वक समझा फार्म निस्ट्रेश्क ने बताया कि इस पद्धति के माझा फार्म निस्ट्रेशक ने बताया कि इस पद्धति के माझ कर्म को फसल कटाई के बाद बिना जुनाई जई फसल को बोया जा सकता है। इसमें जीरो टीलेज यंत्र का प्रयोग

विशेषज्ञों ने आधुनिक मशीनों के उपयोग का खेती पर सकारात्मक प्रभाव बताया, उपयोगिता की जानकारी दी

जैतसर. अत्याधृनिक मशीनों को देखने पहुंचे किसान ।

किया जाता है। जिसके माध्यम से जई फसल का बिजान हो जाता है। धान कटाई के बाद इस पद्धति में जुताई करना आवश्यक नहीं है। किसान को जुताई में लगने बाले पैसे की बचता हो जाती है। धान कटाई के बाद उसका बचा पुआल या भूमा कें फसल की बीजाई होने से स्वतः ही नष्ट होकर कार्बीनक खाद

बनाता है। जिससे खेत की उबंतता बढ़ती है। इस पद्धति से बीजाई होने पर खरपतवार से खुटकारा मिल जाता है। अकसर किसान धान कटाई के बाद भूसे को जलाते हैं। जिससे पर्यावरण को नुकसान होता है। जीरो टीलेज पद्धति से बिजाई करने पर परास्ती या भूसे को जलाना नहीं पड़ता।





Small Tractor drawn belt type cotton planter: The Precision at low cost



Dr. A. V. Gajakos

Cotton planting is conventionally done by manual dibbling. The seeds are dibbled in lines at a depth of 30 mm with two seeds per hill maintaining the desired spacing between the rows and plants. The labour requirement for planting cotton is high (15%) which is next to harvesting operation (44%). This results higher cost of cultivation besides tedious and time consuming to the worker.

For precision sowing of cotton seed there are very limited types of mechanical planters like pneumatic one, are available which are still not popularly adopted by the farmers because of high cost and power intensive nature.



In view of above constraints, a low cost small tractor drawn belt type cotton planter is developed by **Dr. A. V. Gajakos** at College of Agricultural Engineering and Technology, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola (Maharashtra). The specific type seed metering mechanism suitable for precise metering of cotton seed, enabling single or two seeds gently handled and dropped in the place. The rigorous laboratory and filed trials have discharged better performance in terms of missing index, multiple index, quality feed index and uniformity index for 45 cm and 30 cm seed to seed spacing and variable 90 to 120 cm row to row spacing.

The average effective field capacity of the planter was found as 0.43 ha/h. The average cost of operation was found to be Rs. 342.63 per h and 794.90 Rs/ha. There is 98.84 per cent saving in labour requirement and 79.48 per cent saving in cost of operation over traditional method of sowing of cotton crop. The State level Research Committee chaired by Dr. P. G. Patil, Hon'ble Vice Chancellor of MPKV, Rahuri, approved this technology during





Joint Agresco-2022 held at Dr. Balasaheb Sawant Konkan Krishi Vidyapeeth, Dapoli (Maharashtra), and recommended to State Government of Maharashtra for its use by farmers. The University Authority like Dr. S. H. Thakare, Head, Dept. of Farm Power and Machinery, CAET, Dr. PDKV, Akola, Dr. S. B. Wadatkar, Dean (Agril. Engg.) and Dr. S. S. Mane, Director of Research and Dr. S. R. Gadakh, Hon'ble Vice Chancellor of Dr. PDKV, Akola had always stood behind the research and researcher whole heartedly.

The ISAE family congratulate you Dr. Gajakos on your great achievements



Awards



Prof. B.C. Mal, Received IIT Kharagpur Distinguished Alumnus Award-2022 during the convocation

Prof. B C Mal was Former Vice Chancellor JIS University, Kolkata, Former Vice Chancellor Chhattisgarh Swami Vivekanand Technical University, Bhilai, Former Professor of Aquacultural Engineering and Former Head, Agricultural and Food Engineering Department IIT Kharagpur



Vasantrao Naik Marathwada Agriculture University, Parbahni Vice Chancellor **Dr. Indra Mani**, for outstanding contribution in the field of Agricultural Engineering, was recently presented with the prestigious fellowship of International Academy of Agricultural and Biosystems Engineering (IAABE) of Florida, USA, during XX CIGR World Congress held during Dec. 5-9, 2022 at Kyoto, Japan.



Dr. S. D. Gorantiwar, Director of Research of MPKV, Rahuri received this first ever "Best Scientist Award" of Mahatma Phule Krishi Vidyapeeth, Rahuri, awarded at the hands of Shri. Abdulji Sattar, Hon'ble Agricultural Minister, Govt. of Maharashtra during State Level Joint Agresco held during Dec. 14-16, 2022 at Dr. BSKKV, Dapoli. The award is governed by Maharashtra Council of Agricultural Research, Pune. Dr. Gorantiwar has been recipient of many prestigious awards, besides he has lead huge funded projects.



Dr. S. R. Kalbande, Professor and Head, Dept. of UCES & EE, Dr. PDKV, Akola also received this first ever "Best Scientist Award" of Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola, awarded at the hands of Shri. Abdulji Sattar, Hon'ble Agricultural Minister, Govt. of Maharashtra, during State Level Joint Agresco, held during Dec. 14-16, 2022 at Dr. BSKKV, Dapoli. The award is governed by Maharashtra Council of Agricultural Research, Pune. He has been awarded by 14 national awards and he has released 19 research technologies in the field of renewable energy sources.



Dr. K. P. Sudheer, Head, RAFTAAR Agribusiness Incubator and ICAR National Fellow at Kerala Agricultural University, Trissur, Kerala has been awarded with prestigious Entrepreneurship Mentor award at the hands of Hon'ble Justice Narayana Kurup. He has received many awards for his contribution and 300 research papers, six text books and several bulletin in the filed of Post Harvest Technology.

The ISAE family congratulate all you on your great achievements





Awards

During the 56th ISAE Convention held at TNAU, Coimbatore on November 9-11, 2022, the following distinguished Agrineers were presented with various prestigious awards constituted by ISAE.

Mason Vaugh Agricultural Engineering Pioneer Award (1)

(1) Dr. Gyanendra Singh

ISAE Gold Medal (2)

(1) Dr. Bimal Chandra Mal (2) Dr. C. R. Mehta

ISAE Fellow (7)

(1) Dr. K.N. Dewangan, (2) Dr. R. C. Dash, (3) Dr. Satyendra Kumar, (4) Dr. Manoj Khanna, (5) Dr. E. Jayashree, (6) Dr. Saroj Kumar Giri, (7) Dr. Pushpendra Singh Chauhan

Communication Medal (6)

(1) Dr. P. K. Pranav, (2) Dr. S. M. Nalawade, (3) Dr. Dhananjay D. Nangare, (4) Dr. Ajai Singh, (5) Dr. Subir Kumar Chakraborty, (6) Dr. Goraksha C. Waghchaure

Distinguish Service Award (4)

(1) Dr. Roaf Ahmad Parray, (2) Dr. Sanjay Kumar Singh, (3) Er. Pawar Dilip Ananda, (4) Dr. Umesh Chandra Lohani

ISAE Team Award (1)

(1) Dr. Sandeep Mann (PI) (Team Leader) and Team Members: Dr.Renu Balakrishnan (Co-PI) Dr. Rahul K. Anurag (Co-PI) Er. Yogesh B. Kalnar Co-PI) Dr. B.V.C. Mahajan (CoPI) A.K. Dixit (Co-PI) ICAR-CIPHET, PAU Campus, Ludhiana, Punjab-141004

ISAE- TAFE SIVASAILAM Student Gold Medal Award (2)

(1) Er. Bhalekar Dattatray Ganesh (For M. Tech.), (2) Er. Satya Prakash Kumar (For Ph.D.)

JAE Best Paper Award (4)

- (1) S.S. Mali, S.K. Naik, D.K. Raghav, Omkar Kumar and A.K. Singh (Soil and Water Engineering) for research paper entitled Runoff, Sediment and Nutrients Loss from Two Small Watersheds in Eastern Plateau and Hill Region of India, Vol. 58(2).
- (2) Rakesh Kumar Raigar and Hari Niwas Mishra' (Processing, Dairy and Food Engineering) for research paper entitled Conduction Roaster for Accelerated Roasting for Peanut, Vol 58(2)
- (3) Bhabani Shankar Dash, SangramKeshari Swain, Debaraj Behera, Padma Lochan Pradhan, Pramod Kumar Sahoo and Markandeya Mahapatra (Energy and other Areas)) for research paper entitled Energy Budgeting of Paddy-Pulse Cropping System in Bhadrak District of Odisha and Assessment of Emission from Paddy Straw Burning Vol 58 (3)
- (4) Purvi Tiwari, A.K. Shrivastava and A.K.Dave (Farm Machinery and Power) for research paper entitled Anthropometry of Tribal Farm Women to Improve Hand Tool Designs for Bastar District of Chattisgarh, Vol. 58 (3)

JAE Best Reviewer Award (3)

- (1) Dr. Bhaskar R. Nikam(Soil and Water Engineering)
- (2) Dr. K P Sudheer (Processing, Dairy and Food Engineering)
- (3) Dr. Rajesh U. Modi (Farm Machinery and Power)

ISAE Coimbatore Chapter was awarded with Appreciation Certificate for *successfully organizing* The 56th Annual Convention on 'Agricultural Engineering Innovation for Global Food Security' and International Symposium, on 'India@ 2047: Agricultural Engineering Perspective' held at TNAU, Coimbatore, Nov. 9-11, 2022.

The ISAE family congratulate all you on your great achievements





New Appointment



Dr Arjamadutta Sarangi, NAAS Fellow, has joined as new Director of ICAR-IIWM, Bhubneshwar as on Dec. 09, 2022. He has huge contribution in the field of Soil and Water Engineering, Previously he has served as Principal Scientist at WTC, IARI, New Delhi. He is recipient of many awards like Bharat Ratna Dr. C. Subramaniam Award for Outstanding Teachers 2016 by ICAR; Jawaharlal Nehru award for significant research accomplishments in Agricultural Engineering (1999); Associate of National Academy of Agricultural Sciences (NAAS) 2009; Best Teacher Award, ICAR-IARI, New Delhi (2015); Shankar Memorial Award by ISAE (2012); Young professional Awards by International Commission on Irrigation and Drainage(ICID) (2003) and IWMI-TATA (2005); Orissa Engineering Congress prize for best paper (2003); Award of BOYSCAST fellowship (2001) by DST, GoI and Post-Doctoral Fellowship in Sustainable Agriculture by McGill University, Montreal, Canada (2002-2004); Best paper Award by ISAE (twice during 2011 and 2013); Gold medal for securing first position during B.Tech and M. Tech programme (1990 and 1992)

The ISAE family congratulate all you on your great achievements

Obituary



Dr Shivajirao Ghadge expired on 30.10.2022. Dr Ghadge served in the Mahatma Phule Krishi Vidyapeeth, Rahuri for more than 30 years. An Agricultural Engineer graduated from the same University, obtained his M.Tech. in 1978 and PhD in 1990 in Farm Machinery & Power Engineering from IIT, Kharagpur. He retired as Professor of Farm Machinery & Power Engineering from Dr Annasaheb Shinde College of Agricultural Engineering & Technology, Rahuri in 2010. During his tenure, he also served as Principal Investigator, AICRP on FIM. Dr Ghadge was strong follower of Vippassana and practiced it throughout his life. He is survived by his wife and two sons. Agricultural Engineering fraternity pray for his heavenly abode.



Dr. L. Gothandapani, the former Professor and Head, Department of Food Process Engineering, Agricultural Engineering College and Research Institute, Tamil Nadu Agricultural University, Coimbatore, passed away on 11.12.2022 at his daughter's residence in Australia. He was 74. Dr. Gothandapani was a well known teacher, researcher and administrator. With his bachelors degree in Mechanical Engineering joined as Assistant Engineer in the Agricultural Engineering wing of the Agriculture Department, Govt. of Tamil Nadu in 1971. He became Assistant Professor and Associate Professor during 1974 and 1981at Tamil Nadu Agricultural University, Coimbatore. He obtained his Ph.D. degree in Post Harvest Engineering from Indian Institute of Technology, Kharagpur in 1986. With his initiative, a four year undergraduate programme, B.Tech. in Food Process Engineering was started in TNAU since 1998.

The ISAE family pays heartful tribute to the departed souls and stand in sorrow of their family, always.



New Members

Life Members

LM-12554	Manivannan Durat		
LM-12555	Karthikeyan Subburamu		
LM-12556	Salik Ahmad Khan		
LM-12557	Pramodkumar Punjani Shelke		
LM-12558	Neeraj Kumar		
LM-12559	Abhay Kumar Sinha		
LM-12560	Kumar V		
LM-12561	More Dnyaneshwar Devendra		
LM-12562	Dattatray Virkam Nimbalkar		
LM-12563	Heartwin A Pushpadass		
LM-12564	Patel Ulpa Vinodbhai		
LM-12565	Navamuniyammal M.		
LM-12566	Gajera Bhautik Vinubhai		
LM-12567	Rakesh Godara		
LM-12568	Sanjay Kumar Sial		
LM-12569	Brajesh K. Panda		
LM-12570	Sreedhara B		
LM-12571	Ravinder Kaushik		
LM-12572	Abhishek Chandra		



ISAE Executive Committee

S. No	Name	Position	Email	
1.	S.N. Jha	President	president@isae.in snjha_ciphet@yahoo.co.in	
2.	Indra Mani	Immediate Past President	past_president@isae.in maniindra99@gmail.com	
3.	D.M. Kadam	Vice President (Activity Council)	vicepresident_ac@isae.in dmkadam11k@gmail.com	Table 1
4.	Ambrish Kumar	Vice President (Technical Council)	vicepresident_tc@isae.in aktswc@gmail.com	
5.	P.K. Sahoo	Secretary General	secretarygeneral@isae.in sahoopk1965@gmail.com	
6.	T.K. Khura	Secretary-I	secretary1@isae.in tapankhura2020@gmail.com	
7.	Chandra Shekhar	Secretary-II	secretary2@isae.in agm.engg@indiaseeds.com	
8.	A.K. Thakur	Treasurer	treasurer@isae.in drakthakur65@gmail.com	



ISAE Chapters

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

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