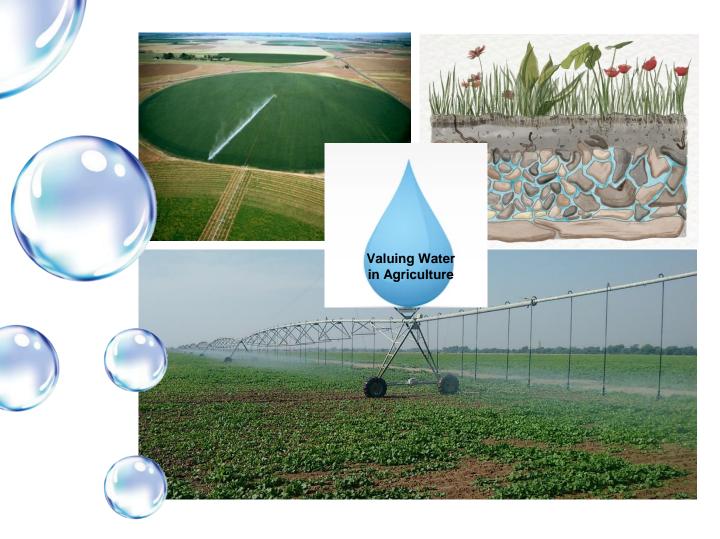
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Engineering mirror of happenings in Agriculture World

March-April, 2022



4500 + Life Members

36 Chapters

2 Scientific Journals

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Message From President



Dear readers! The Indian Society of Agricultural Engineers (ISAE) is the only professional society of Agricultural Engineers mandated to look into the issues of mechanization, automation and making agricultural activities comfortable in the country. The ISAE identifies the problems of our mandated disciplines and takes up necessary measures to mitigate them. The present executives are very active, taking all along and working almost on daily basis, selflessly. You might have seen changes and felt vibrations in society's activities in recent months. All editorial boards, council members, and different committees for targeted achievements have been formed and are working at their best level. Membership drives, lecture series in collaboration with ICAR-IGFRI have been initiated and they are giving desirable fruits. Agricultural Engineering Today, from next issue, will mainly become people's magazine/ journal mostly containing industry oriented articles and news and data information. In editorial board of AET, three are industry tycoons. We had all chapters meeting in this month, first time in ISAE history and 29 chapters' office bearers/ representatives attended the meeting for more than two hours. This shows, if initiatives taken, the honourable members are active, and all agreed to have fresh elections of chapters executives, where it has not been since long, before June 30, 2022.

To achieve the objectives, a planning is required and we are making the same possible through interactive coordination between academia for production of work force as per the present day requirement, research organizations to address the technology related issues, industry partners for large scale technology adoption and manufacture, and government and non-governmental organizations to bring policy changes and implement new technologies effectively at ground level. Such approach will help the society in contributing towards food and nutrition security, and enhancing income of the primary producer, that is the farmers and helping India to become leader in mitigation of environment/ natural resources management problems.

The society looks towards contributions in quantum jump benefitting all stakeholders including farmers, by including Agricultural Engineering as a primary discipline in eligibility of government and private sectors' job. Quality of our mirror that is journals, e-newsletters, and website, including industry participation in the activities, are amongst the first priorities.

Friends! It is difficult to enumerate all initiatives that new executives have taken. A society can only progress when everyone participates in its activities. We have already written to Maharashtra and Karnataka government and Central Government has also agreed to write once again to all states for establishing Agricultural Engineering Directorate. Dear ISAEians, I have and I am requesting to all of you kindly to come forward and make a sate level committee to fight for the same. Everyone's participation only can meet everyone's expectations!

S N Jha President, ISAE





From the Chief Editor's Desk



The path of agriculture is unpredictable and role of Agricultural Engineers is full of challenges. One such challenge is irrigation – timely and efficiently. In the month of March, we celebrated World water day to create awareness on importance and access to safe water. This year, the theme was "Groundwater – making invisible visible". Agriculture accounts approximately 70% usage of fresh water in the form of both surface and ground water for agriculture needs. In order to overcome the scarcity of water, it is required to make judicious use of available water and efforts should be made for improving the irrigation efficiency for water saving. This e-newsletter covers some success stories including that of NSC farm in which water scarce land was developed and by installation of modern Irrigation systems, the water use efficiency was increased which in turn increased the irrigated area, cropping intensity and productivity of the farm.

In order to take latest technologies developed across the globe by every Agricultural Engineer, this newsletter is also featured with glimpses of such efforts made through some demonstrations and training programs conducted during this period of March - April across the country by various Agricultural Engineering Institutions.

I hope the content on various technologies and ISAE happenings through this e-newsletter will give you all some useful takeaways. 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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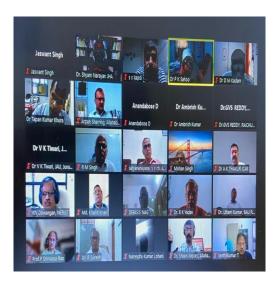


ISAE Happenings

Executive Committee Meeting Held thrice during the period

In these meetings several decisions were taken and action plans were made. Few of them are as hereunder:

- 1. Action taken report for Executive Council meeting held on 03.01.2022 and Executive Committee meeting held on 05.02.2022 were discussed and presented by the Secretary General
- 2. Certificate of appreciations for outgoing council members, editorial board members, etc. will be given on-line as it is done by National Academy of Agricultural Sciences.
- 3. The date for next annual convention at TNAU Coimbatore was decided to be held during 9-11 November, 2022.



- 4. The Editorial boards of JAE and AET were approved. Format and contents of AET and new Authors' guidelines for both journals were also finalized
- 5. Score card/ guidelines of society awards were finalized and circulated amongst members for comments
- 6. A 12 lecture series proposed by Dr. P. K. Pathak, (Director, Processing, Dairy & Food Engg) was approved and already started
- 7. ISAE Constitution amendment committee under the chairmanship of Dr. V. M Mayande met thrice. Draft of constitution, bylaws and rules were made and are under discussion.
- 8. ISAE has revised the membership fees w.e.f. from July 2022. During last 3-4 months, about 500 students members and more than 100 life members have got membership of ISAE. The drive for the same is at full swing.
- 9. Twelve themes for ISAE calendar 2023 are to be decided on the basis of all India student competition named as "Calendar Conceptathon". The year 2023 is declared as world's Millet year and hence the focus of the calendar will be on the "Engineering Innovation for Millets". The nodal person for the person is Vice-president Technical Council.
- 10. Theme of ISAE Convention during 9 − 11, November 2022 at TNAU Coimbatore approved as below:
 - ISAE Convention Theme: Agricultural Engineering Innovation for Global Food Security. International Symposium Theme: India @2047: Agricultural Engineering Vision



ISAE Happenings

Executive Committee meeting, ISAE Lucknow Chapter

Dr Jaswant Singh, Chapter Chairman welcomed all the participants and informed about activities like organisation of webinars by IEI in which Lucknow Chapter was also involved. He raised the issue of creation of Agricultural Engineering Directorate in Lucknow. Er Neeraj Srivastava elaborated about the hindrances coming in the way, however Lucknow Chapter will continue its efforts in creation of Directorate.

Future Activities : It was decided to hold AGM on 7th May, 2022 (Saturday) in Directorate of Agriculture, Krishi Bhawan, Lucknow. A seminar/ lecture is also planned to be organized in the forenoon, in which Director, Drone Federation of India will deliver a lecture on the topic, "Drone application in agriculture". Prior to this lecture, Er Neeraj will deliver a talk on "Government policies on drone application in agriculture".

Election of Executive Board: It was decided that the current Executive will continue for one more year and in the meantime, election would be conducted. This matter is to be discussed in next AGM.

Executive Committee meeting, ISAE NER chapter

Executive Body meeting of ISAE-NER chapter was organized on 12th March, 2022. The meeting was organized with two agenda items (a) Possibility of organizing a Regional Conference and (b) Follow up action on the appeal made by one of our members to Governor of Assam for avenues to Agricultural Engineers. The meeting was attended by the members of Executive body of ISAE-NER chapter. In the meeting, Dr S. N. Jha, President, ISAE, Dr Ambrish Kumar, Vice President (Technical Council) and Mr Manas Bharali, one of the members who communicated with Governor were special invitee. However, due to personal reasons President ISAE could not attend the meeting. Prof P. K. Bora, Chairman, ISAE-NER chapter explained the objective of the meeting. The meeting was also addressed by Dr. Ambrish Kumar, Vice President (Technical Council) on the roadmap to go ahead to realise the objectives. Discussions were also made on how to go ahead about the Regional conference. The meeting ended with vote of thanks proposed by Prof M K Hazarika, Secretary, ISAE-NER chapter.



India Enters into top 10 list of Agri-produce export

India's agriculture and allied exports have grown at a brisk of 24 percent in the first 10 months of the current financial year. Exports were boosted by an increased access to markets in the US, European Union and the United Arab Emirates, and targeted efforts by the government to expand the global reach of processed food from India.

Commerce ministry data shows that exports of farm produce, both processed and unprocessed, climbed up to \$38.6 billion in January, 2022, from \$31.16 billion in April, 2021. The government expects total exports from the sector to rise to \$43 billion by March, 2022. Data showed that while the global commodity supercycle played a part in raising the prices of non-food products, such as tea, cotton, and rubber, prices of food products have remained stable.

The growth in the export of farm produces was led by a sharp rise in the exports of non-basmati rice, cereals such as rice and wheat, dairy items and sugar, all of which grew by at least 40 percent in April, 2021 to January, 2022, according to the Agricultural and Processed Food Products Export Development Authority (APEDA), which tracks non-plantation crops.

Export of spices like ginger, pepper, cinnamon, cardamom, turmeric and saffron, which have therapeutic qualities, has also grown substantially. Meanwhile, the Marine Products Export Development Authority (MPEDA) said that shrimp and prawn exports have already reached 88 percent of the total export value of last year.

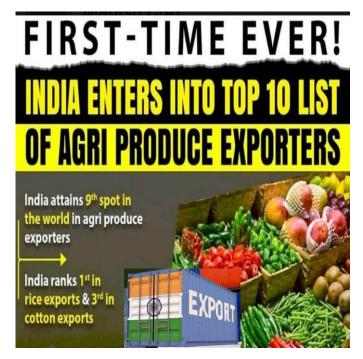
A range of new products has also been shipped abroad for the first time in FY 2021-22. They include fresh vegetables and mangoes from Varanasi, black rice from Chandauli, oranges from Nagpur, bananas from Theni, bhoot jolokia chilli from Nagaland, red rice from Assam and millet from Himachal Pradesh, among others. The government has also significantly pushed exports of processed items such as honey, cocoa, fruit jams, and wine, in which India hasn't shared global expertise till now.

India has now become the ninth-largest honey exporter in the world, shipping out 7.36 lakh tonnes in the previous financial year, the US being the largest buyer, at 80 percent share of it.

India ranks 1*in rice exports & 3* cotton exports

Cotton exports

Source: New items





Training Cum Technology Demonstration Meet

Training Cum Demonstration Meet, CIAE

National Campaign on Farm Mechanization was celebrated by Indian Council of Agricultural Research, New Delhi during 28th March to 4th April, 2022. Under this campaign, ICAR-Central Institute of Agricultural Engineering, Bhopal organized a Training Cum Technology Demonstration Meet on agricultural machinery on 28th March, 2022 to highlight the importance and utilization of agricultural tools, equipment and machinery.

In the inaugural session, Dr. C.R. Mehta, Director, ICAR-CIAE, Bhopal highlighted the importance of newly developed agricultural machinery and technology to enhance the production and productivity, and also emphasized the benefits of natural farming and Agricultural entrepreneurship. Shri. Vishnu Khatri, Hon'ble MLA, Berasia constituency, graced the occasion as a Special Guest. He distributed agricultural tools to trainee farmers under Schedule Caste Sub Plan (SCSP Scheme). Dr. S. Mangraj, Principal Scientist shared the details of SCSP scheme for the notice of honorable MLA and others.

In this demonstration meet, the modern technology and machinery were live demonstrated to the farmers on fields. More than 450 farmers, women, scientists and officers participated in the programme. The latest Drone technology suitable for agricultural work was also demonstrated, besides creating awareness among the farmers about agricultural machinery suitable for crop residue management









Training Cum Technology Demonstration Meet

Technology & Machinery Demonstration Mela, UAS Raichur

Technology and Machinery Demonstration Mela under AICRP SCHEMES, organised by College of Agricultural Engineering, UAS, Raichur, Karnataka



Workshop on small Farm tools, CAU-KVK

CAU- KVK, East Garo Hills organized one day Workshop on Distribution cum Awareness on Small farm tools/ technologies under NEH Component sponsored by ICAR-Vivekananda Parvatiya Krishi Anusandhan Sansthaan (VPKAS), Almora at KVK office, Megagre on 7th March, 2022. In this programme, different small farm tools were distributed to 45 farmers.



Source: ISAE NER e-newsletter Jan-March 2022

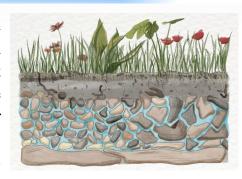


ISAE and World Water Day

World Water Day, held on 22nd March every year since 1993, focuses on the importance of fresh water. The world water day celebrates water and raises awareness amongst the 2.2 billion peoples who are living without access to safe water. It is about taking action to tackle the global water crisis.

The theme of World Water Day 22nd March, 2022 was

"Groundwater- Making the Invisible Visible"



Source: https://www.worldwaterday.org/

ISAE NER chapter Organised online World Water Day

- ISAE NER chapter organized online World Water Day on 22nd March, 2022, in which Er. Praveen Sharma, Agricultural Engineer and floriculture producer was the speaker. The program was graced by stalwarts like Prof. Gajendra Singh and Prof. N. K. Gontia, Hon'ble VC, JAU. It was highly informative interaction.
- World Water Day was organized at College of Agricultural Engineering and Postharvest Technology, Ranipool, Sikkim on 22nd March, 2022. During this program, drawing, essay and photography competition was organized. Prizes were given to the winners of the program. The program was graced by Prof. P. P. Dabral, Dean CAEPHT and Dr. A. K. Vashisht, Head, Department of IDE.

Article of Prof. B C Kusre, on World Water Day 2022

Ground Water: Making the invisible visible: Theme of World Water Day 2022

Prof B C KUSRE

e all know water is one and only natural resources that sustains life on the earth. The importance of this resource was also documented in the Upanishads too. In one of the shlokas it is mentioned that without food one can survive for number of days but without water one cannot. With the growing population and changing lifestyle the demand has increased significantly thereby putting stress on the resources. So to remind the importance of the awareness on protection and

conservation of this resources the United nation have designated 22nd March as World Water Day. Every year this day is observed with different theme and in 2022 it is observed with the theme Ground Water: Making the invisible visible.

Among different sources of water, ground water plays a very important role in preserving it and making it available in the form of store at no cost. It also plays a critical role in adapting to climate change, Ground water source is of course out of sight but we cannot afford it to be out of mind. The role of ground water in aiding green revolution

of the irrigation in India is realised through this ground water. India uses maximum amount of ground water that constitutes around 25% of worlds ground water usage. It has led to severe depletion and pollution of the resource. This is becoming a matter of concern as it has been reported that abstraction of ground water is more than its replenishment resulting in lowering in water table. As 90% of water used for irrigation is drawn from ground water. depletion of water table may stress the poor and marginal farmers who will be constraint due to their lack of ability to

afford pumping water from deep inside the aquifers (water baring formation of soil). This will lead to loss of livelihood for large section of farming community as well as on food security. As per ATREE approximately 700 million Indians living in village depends on ground water for their daily needs. Further the dependence in rural areas (85%) is more as compared to urban areas (45%).

In hilly areas although the conventional ground water is not existing but springs exist that are also ground water. Most of rural societies in hilly areas rely on springs for good quality water for domestic and other purpose. With the rapid

urbanization, the flow path of water has been disturbed there by affecting the spring recharge. It has been observed that many springs starts drying in the post monsoon season. Drying up of the springs leads not only to scarcity of water resources but also the reason for conflicts. Another concern is regarding the pollution of the ground water resources. Improper use of the fertilizers/ waste disposal is also a major concern. These waste leach into the soil and join the ground water resources.

The water as per economist is considered as Open Access Common Property resource. Therefore, it is responsibility of each one of use to understand the gravity of the problem and contribute our own effort in protecting and conserving the resource. Today's effort will give fruits for the upcoming future. On the occasion of this World Water Day let's take this opportunity to create awareness amongst people in our surrounding to protect and conserve the water as a resource in general and ground water in particular.

(The writer is the Professor (IDE); College of Agricultural Engineering and PHT. Ranipool. (E) Sikkim; Email; kusrebharat@gmail.com)

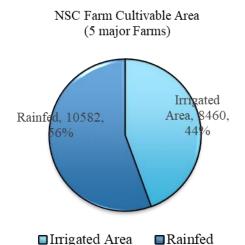




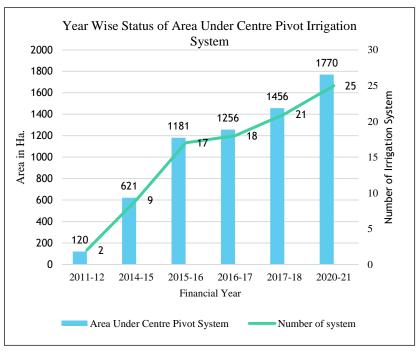
Success Story of Centre Pivot System, NSC Farm

National Seeds Corporation Ltd. (NSC) was established in 1963, and its mandate is to produce quality seeds for farmers of the country at reasonable price. NSC is having 7 large Mechanised Farms in an Area in 22152 Ha and NSC produces wide range of crops (80 crops, 627 varieties) through its growers under control of 11 regional offices and Mechanised Farms.

NSC Farms are facing acute shortage of Irrigation water and to increase the Irrigation Efficiency of the Farm, Centre Pivot system was introduced first time in India at NSC Farms in Year 2011. Presently NSC is having 25 Nos of Centre Pivot Systems in an area of 1770 ha.



- Out of Cultivable Area of 19042 ha, only 8460 ha is Irrigated area
- Farms are facing acute shortage of Irrigation Water



Advantages of Centre Pivot System:

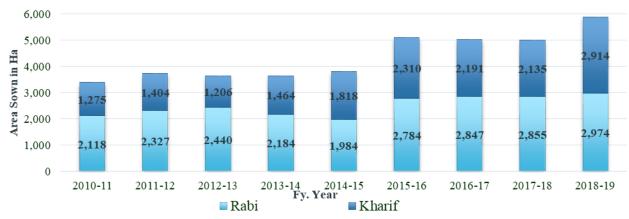
- ➤ Water evenly distributed in the soil & Precise water placement
- More Water application efficiency
- ➤ 35-40% water Saving as compared to flood irrigation
- > One labour is enough to operate one system of 70-80 Ha area
- Levelling, grading or bunding of field is not required.
- > Better time management, save sowing time.
- ➤ Ease of operation of different agricultural machineries including Combine harvesters, etc.
- Low operating cost, maintenance & repairs.
- ➤ Long life of system, assessed as 20-25 years



Success Story of Centre Pivot System, NSC

Success Story of Jetsar Farm, NSC

Year Wise increase in Sown Area



- Total Sown area increased from 3393 ha in Yr. 2010-11 to 5888 ha in Yr 2018-19
- ➤ Cropping Intensity increased, Kharif sown area increased by 120%, Rabi Sown area increased by 40 % with over all increase in sown area by 73.5%







Total Area Under Centre Pivot System at Jetsar Farm – 955 ha (13 Nos) Crops Undertaken – Wheat, barley, Oat, Green Gram, Black Gram, Groundnuts, Mustard etc.





Solar Assisted e-prime Mover (SAePM) Technology









The Central Institute of Agricultural Engineering (ICAR-CIAE), Bhopal based Senior Scientist Dr. P. C. Jena, developed the Solar assisted e-prime mover (SAePM). It is a simple and easy to use for weeding and spraying operations in soybean crop. The unit is equipped with independent power units for propelling the vehicle, weeding and spraying operations. The SAePM can be operated using both battery and solar energy. The battery bank capacity for SAePM and weeder is 4.8 kWh and 1.24 kWh, respectively. The SAePM was operated at a forward speed of 1.3 and 2.6 km/h during weeding and spraying operations, respectively. The field capacity and weeding efficiency of the weeder are 0.06 ha/h and 70%, respectively. Similarly, field capacity and power requirement for boom sprayer are 0.52 ha/h and 50 W, respectively. The power consumption by SAePM during the field operation has been found to be 932-1648 W and 229-593 W for spraying and weeding operations, respectively. This is a multipurpose vehicle and can also be used for transport of farm produce, mobile charging and mobile power unit for home electrification. The idea of using solar power for operating agricultural machineries is need of time and its future demand will always be growing thus it is in time approach.

Source: Dr. P. C. Jena, CIAE, Bhopal, Contact: prakiitkgp@gmail.com



इकरा ने घटाया भारत का विकास दर अनुमान 12

आतंकवाद का सामृहिक रूप से मुकाबला करें बिम्सटेक देशः जयशंकर 13 👢 🥋 🏠 केंद्रीय कृषि अभियांत्रिकी संस्थान, भोपाल ने बनाया प्राइम मुवर, किसानों को मिलेगी राहत

सौर उर्जा चालित यंत्र से अब कम लागत में हो सकेगी उन्नत कृषि



विद्रानया विशेष

भोपाल: विज्ञनियों ने ऐसा सीर ऊर्जा चालित यंत्र विकसित किया है जिससे किसान बिना ईंघन खर्च किए खेती के कई काम कम समय में कर सकेंगे। • पेज 2



म मुदर के खरे में जातकारी ही जमीत की जुताई, निराई-गू एर विज्ञातियों ने बताया कि पांच घर्ट के अंदर की जा संके हिंदी की पांच घर्ट के अंदर की जा संके वंड को से चिताया दियां एक है कि ऐसा वंड बजाना में पहले हों के प्रत्या की में द्वारा की काया है। इन्द्रकाय कर सीने में द्वारा घर भी कर सकेंगे रोशनः इन्द्रकाय कर सीने में इसी घर सकेंगे रोशनः आभ्यातिका संस्थान ने हमशा सं है किसानों के हित से कदन उठाए हैं। किसानों के लिए संती लाभ का करवसाय बने, इसके लिए हमारे संस्थान द्वारा यह यब किसोन्ति किए गए हैं। उम्मीय है कि सी, उठाजों से बचने वाला है – प्राइम मुक्त कुसे के क्षेत्र में एक नई क्रांति स्वरूप आपाति । यह मनेज कुमार निमादी, अध्यक्ष

प्रेच हे कि सीर ऊजा से स्वाप्त है - प्राप्तम मुदर के के तो में एक नहें क्रांति के के तो में एक नहें क्रांति से के तो में एक नहें क्रांति से किट कित्रण गय प्राप्त है स्वाप्त के तालात संभाव कुमार हिमाठी, अलावा सामार सीर्थी, केविल इनें सीर्वीक्री संस्थान, पीकत

में कारीब एका घंटे तक ट्रेक्टर को बहानी में सकक्षम नजाता है। इसे 56 इस्ते पावर के इंकेन में किट किया गया है। कियान ट्रेक्टर के हार्स पावर के हिसाब से सीएनजी इंजन चुन सकते हैं। इसके उपयोग से धातावरण में बढ़ रहे प्रकृषण को रोकने में मदद मिलेगी और खेती की सामत भी घंटेंगी। में प्रिकटिटल तक भार लें जा सक्तामा। र 3,50,000 सीर ऊर्जा वंत्र की कीमत र 50,000 सीएजी इंजन की कीमत 40% सीएजी सं खेत में काम करने की ईधन सामत सामग इतनी घट जाति है

संगमग इतना घट जाता ह





Golden Jubilee Alumni Meet -2022 of CAET, Akola



The Golden Jubilee Alumni Meet-2022 was organized by College of Agricultural Engineering and Technology, Dr. Panjabrao Deshmukh Krishi Vidyapeeth, Akola during March, 4-5, 2022, in association of NAHEP, ICAR, New Delhi project. The function was inaugurated by Dr. V. M Bhale, the Hon'ble Vice Chancellor, Dr. PDKV, Akola in auspicious presence of Chief Guest Dr. R. B. Sharma, Ex. NAHEP Coordinator, ICAR New Delhi, Shri Vikram Sali, DCP, Amravati & Alumina of this College, Dr. R. M. Gade, Director of Extension, Dr. S.B Wadatkar, Dean, Faculty of Agricultural Engineering, Dr. S. R Kalbande, Registrar, Dr. PDKV, Akola. Dr. S. R. Kalbande delivered the welcome thoughts and Dr. S. B. Wadatkar expressed moto behind organization of this Alumina Meet. In inaugural function, Dr. V. M. Bhale, Hon'ble Vice Chancellor, expressed that, Agricultural Engineering has done prime work in mechanization, in recent years. During these two day's program, several alumni expressed their thoughts and discussed the gap between present course curriculum and need to emphasis on the possible opportunity to the Agricultural Engineers.

The College was started long back in 1970 with B. Tech. program and later added M. Tech. program in 1984 and subsequently Ph.D. program in 2008. The total 1804 Undergraduate students and 427 Post Graduate students have passed out from this College and are placed in varied fields in different corners of the World.

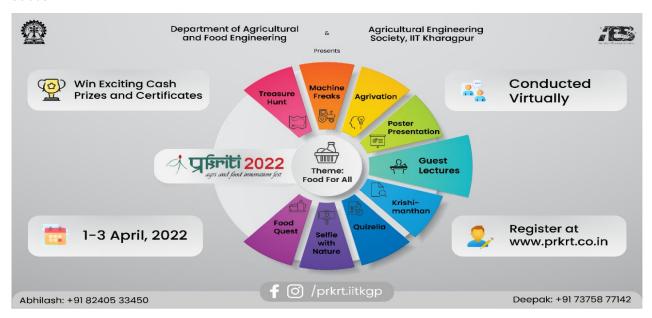
(Source: Chairman, ISAE Akola Chapter)



Awards & Achievement

Prakriti 2022 (Agri and Food Innovation Fest), IIT Kharagpur

Prakriti is an initiative by the students of Indian Institute of Technology, Kharagpur, to amalgamate the academia and industry associated with the agricultural and food sector.



प्रकृति 2022 प्रतियोगिता में बीएयू के छात्रों का उत्कृष्ट प्रदर्शन

भारतीय प्रौद्योगिकी जासं रांची संस्थान (आइआइटी) खड्गपुर इंजीनि एग्रीकल्चरल इंडियन आयोजिज प्रकृति सोसाइटी कारा 2022 प्रतियोगिता के तहत एंड फूड इनोवेशन फेस्ट वार्षिक प्रतियोगिता का परिणाम जारी कर दिया गया है। रांची कृषि महाविद्यालय में बीएसएजी पाठ्यक्रम के 8वें सेमेस्टर के छात्र सीरभ नंद तिवारी ने बताया कि अखिल भारतीय के आनलाइन ओपन इस प्रतियोगिता के नौ स्पर्धाओं में पूरे देश के करीब 40 कृषि विश्वविद्यालयों छात्राओं ने भाग लिया।

में विरसा प्रतियोगिता विवि के कांके स्थित रांची महाविद्यालय (आरएसी) एवं कृषि अभियंत्रण महाविद्यालय (सीएई) के करीब 30 छात्र-छात्राओं ने लिया। प्रतियोगिता के चार स्पर्धाओं में विवि के छात्र-छात्राओं ने उत्कृष्ट प्रदर्शन करते हुए सात पुरस्कारों को अपने नाम किया है। छात्रों की सफलता पर बीएयू के कुलपति डा. ऑकार नाथ सिंह सहित डा. एसके पाल, एसोसिएट डीन ई डीके रुसिया सहित अन्य शिक्षकों ने बधाई दी है। इन्होंने सफलता विवजेल्ला प्रतियोगिता के



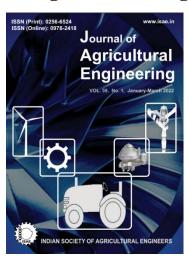
विवज स्पर्धा में आरएसी, कांके के छात्र सीरभ नंद तिवारी ने पहला तथा सीएई की छात्रा मेघा कुमारी ने दूसरा स्थान प्राप्त किया है। वहीं, विवजेल्ला जनरल विवज स्पर्धा में सीएई के छात्र जबदेव महती ने पहला तथा आरएसी के छात्र सीरम नंद तिवारी ने दूसरा पुरस्कार जीता है। ट्रेजर हंट स्पर्धा में सीएई के जबदेव महती ने दूसरा पुरस्कार जीता है। ट्रेजर हंट स्पर्धा में सीएई के जबदेव महती ने दूसरा तथा दिलीए, जबकि पोस्टर प्रेजेंटिशन में आराध्या माही ने तीसरा पुरस्कार जीता।

Prakriti 2022 was organized by Agricultural Engineering Society of IIT Kharagpur. In innovation feast Prakriti 2022, students form 40 Agriculture Colleges participated. The participation of 30 student of 8th Semester of BSc Agriculture and B. Tech. Agricultural Engineering of Birsa Agricultural University, Ranchi participated and shown the event outstanding performance in the competition.



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Lecture - I

Entrepreneurship Opportunity in Feed & Fodder Sector



Speaker

Dr. Prabha Kant Pathak Principal Scientist (ASPE) and Head FMPHT Division, ICAR-IGFRI Jhansi 23rd April, 2022 3:00 PM - 4:30 PM

Zoom Meeting ID: 811 5599 4689 Passcode : 026657



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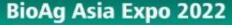


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DAY - 1 | WEDNESDAY, 20 APRIL, 2022

Registration	03:00 PM - 04:00 PM
Inaugural ceremony & launch program	04:00 PM - 05:30 PM
Inauguration of BioAg Asia Expo	05:30 PM - 06:00 PM
Networking Tea	06:00 PM - 06:30 PM
Policy and Business environment in major Asian countries	06:30 PM - 07:30 PM
Policy initiatives by Indian states for natural farming	07:30 PM - 08:30 PM
Dinner	08:30 PM Onwards

DAY - 2 | THURSDAY, 21 APRIL, 2022

Bio agriculture – global perspectives and Asian markets	09:00 AM - 10:30 AM
Networking Tea	10:30 AM - 11:00 AM
Policies and regulatory ecosystem for biologicals	11:00 AM - 12:15 PM
Technological advances in bio-control and bio-stimulants	12:15 PM - 01:30 PM
Lunch	01:30 PM - 02:15 PM
Successful innovations in bio-inputs for Asian markets	02:15 PM - 03:30 PM
CEOs session on global opportunities for India	03:30 PM - 04:45 PM
Networking Tea	04:45 PM - 05:30 PM
Road map for sustainable bio agri model for evergreen revolution	05:30 PM - 06:45 PM
Presentation of BioAg Asia Awards 2022	07:00 PM - 08:00 PM
Dinner	08:00 PM Onwards

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