

MAHATMA PHULE KRISHI VIDYAPEETH, RAHURI

**54th Annual Convention of
Indian Society of Agricultural Engineers (ISAE)
and
International Symposium on
“Artificial Intelligence Based Future Technologies in Agriculture”**

January 7-9, 2020

Venue: Hyatt Regency, Vimannagar, Pune, India



Organized by

**Indian Society of Agricultural Engineers (ISAE), New Delhi
and**

**Dr. Annasaheb Shinde College of Agricultural Engineering and Technology
Mahatma Phule Krishi Vidyapeeth, Rahuri**



ISAE Convention

Indian Society of Agricultural Engineers (ISAE) was established in 1960 with a mandate to strengthen the profession by bringing together agricultural engineers of the country on one platform and facilitate broader participation of its members in professional activities through its activities. Annual conventions of the society enable multiple stakeholders, national and international experts to discuss challenges and opportunities in the research, education, extension, industry, employment, and other relevant aspects of agricultural engineering. The recommendations and resolutions adopted during these events guide Government agencies and industry bodies. The ISAE Annual Convention provides an excellent platform for interactions, deliberations, exchange of ideas, collaborations, and networking opportunities with experts and stakeholders in the world's fastest-growing economy. Of late, ISAE in collaboration with ASABE organized the Global Water Security Conference for Agriculture and Natural Resources in Hyderabad, India on 3-6 October 2018. This event was ASABE's second major global initiative conference held outside the United States of America (USA). During Annual International Meeting (AIM) of ASABE at Boston, ISAE was recognized for its outstanding contribution in organizing this mega international event. This was followed by 53rd ISAE Annual Convention at Banaras Hindu University (BHU), Varanasi, India on 28-30 January 2019 which was a great success.

The 54th Annual Convention of ISAE will be organized during 7-9 January 2020 in Pune by ISAE, New Delhi and Dr. Annasaheb Shinde College of Agricultural Engineering and Technology, Mahatma Phule Krishi Vidyapeeth, Rahuri and coincides with the Golden Jubilee of the college. Recently Government of India has announced several initiatives to encourage startups to drive India towards a \$5 trillion economy. Therefore, the theme of the 54th Annual Convention of ISAE will be "Agricultural Engineering Technologies for startups." This convention theme is a continuation of the "Doubling farmers' income through technological interventions" theme of the 52nd Annual Convention held at AAU, Anand, Gujarat. Development and deployment of artificial intelligence and machine learning technologies in a significant way have particular relevance to Agriculture Engineering. An International Symposium on "Artificial Intelligence Based Future Technologies in Agriculture" will be organized in association with Centre for Advanced Agricultural Science and Technology (CAAST) for Climate Smart Agriculture and Water Management (CSAWM), MPKV, Rahuri.

Theme of convention: Agricultural Engineering Technologies for start-ups

Agricultural engineers will play a critical role in assuring India's food security in the coming decades. As India develops into a \$5 trillion economy in the coming decade, the share of agriculture in the economy will decrease. Despite the decreasing share of agriculture in the diversifying and growing Indian economy, a thriving agricultural sector is vital for maintaining India's security and independence. Impact of several challenges such as small landholdings, increasing monsoon variability, and volatile commodity markets, are reflected in the increased agrarian distress across the country. Increased mechanization, sustainable farming practices, increased post-harvest processing and value addition of agricultural products can increase farmers' income and reduce rural to urban migration, thus reducing agrarian distress. As a youthful country with a median age of 29 years, India is emerging as a significant global innovation and startup hub. Providing impetus to startups based on agricultural engineering technology-based startups can address many issues such as employment generation, value addition, increase income to farmers, and promoting vibrant agrarian value chains.

Agricultural Engineering interventions are necessary for India's next green revolution. Many agricultural technology startups in India focusing on technologies such as protected cultivation, post-harvest management, value addition, cold chain management, data analytics, machine learning, and satellite imaging are already enabling farmers to maximize their output. There are innumerable business opportunities in the agriculture and allied sectors, especially in India. There are many opportunities in this sector, and stakeholders around the world are increasingly investing in Agricultural Tech Startups to unleash its existing potentialities. As the premier society of agricultural engineers, ISAE will focus on the Agricultural Engineering technologies for startups in the 54th Annual convention of ISAE.

International Symposium on "AI Based Future Technologies in Agriculture"

Growing pressure on the natural resources such as land and water, improving agricultural productivity, increasing concerns about the sustainability of industrial farming practices, maintenance of soil health and reducing the pesticide use in produce necessitate sustainable climate-smart and precision agriculture strategies. The climate-smart and precision agriculture involve, obtaining the solutions with advanced technologies such as the application of robotics, drones, IoTs, Geo-informatics, precision machinery for efficient farming on a sustainable basis. This sector is currently in its infancy in India and will expand geometrically to keep pace with fulfilling the goal of doubling farm income by 2022. Therefore, this is an opportune time to develop the human resources to start the entrepreneurship activities in the in precision and climate-smart agriculture industries.

Research into Artificial Intelligence (AI) and Machine Learning (ML) applications for agriculture are still in progress. Some applications are already available in the market and are being rapidly adopted especially in-field farming techniques. In order to explore the enormous scope of AI in agriculture and meet the complex and heterogeneous needs of Indian agriculture, an International Symposium on "Artificial Intelligence Based Future Technologies in Agriculture" will be organized during the 54th ISAE in association with **Centre for Advanced Agricultural Science and Technology (CAAST) for Climate Smart Agriculture and Water Management (CSAWM)**, a World Bank Sponsored Indian Council of Agricultural Research (ICAR), National Agricultural Science and Technology (NAHEP) Project at MPKV, Rahuri.

Important Deadlines

Abstract submission	: October 15, 2019
Letter of acceptance to authors	: October 30, 2019
Submission of full length paper	: November 15, 2019
Final manuscript submission to convener by concern Technical Directors	: November 30, 2019
Official Language	: English

For any other inquiry kindly contact: isaempkv2020@gmail.com

Conference Registration

All participants should register for the conference by filling-up there gistration form which is given separately with the brochure and is also available on the conference website: <http://www.isaempkv2020.in>. Registration fee is to be paid in advance. The details of registration fee for different categories of participant are given below.

RegistrationFee	: IndianRupees
ISAE member	7000
Non-member	8000
SRF/JRF/SRA/RA/Ph.D.ResearchScholar*	4000
Students (ISAE Members) #	3000
Accompanying person	2000

* Those who are not ISAE member may become member before convention or on spot

In-service students are not entitled to avail the benefit of this option. All students should attach their certificate from Dean/ Associate Dean/ Head of the Department along with their Identity Cards.

- ISAE student members whose quality research paper is accepted for presentation during the annual convention and International Symposium will be awarded travel grant from ISAE.
- Superannuated (Not reemployed) ISAE members can avail registration fee exemption.

Mode of Payment

Participants can pay registration fee charges through electronic transfer or by online mode by accessing the Convention website Bank Details for Payment

Name of Bank	State Bank of India
Branch	MPKV, Rahuri
Account Name	Rahuri Chapter of ISAE
Account Number	38709536693
IFS Code	SBIN0003239
MICR Code	413002672

Conference website: <http://www.isaempkv2020.in> ISAE website: <http://www.isae.in>

Accommodation

Limited accommodation is available in the guest houses of NCL (CSIR), IITM, IMD, IE, NIV, IIM, NIBM, IISER, ICAR-NRCs, Govt. guest house, etc. on first come first serve and on payment basis. Accommodation will not be available in the University guest house at Pune. Hotel accommodation can be booked by the delegates directly. The list of hotels along-with the tariffs will be available on the Convention website. The delegates are advised to email travel plan to isaempkv2020@gmail.com to facilitate local travel arrangements if required. The details regarding accommodation and transport will be updated from time to time on the Convention website.

Scientific sessions and call for papers

Scientific sessions will include lead papers as well as keynote addresses by national and international experts on the subject. Original research work will also be presented in oral and poster paper sessions. Soft copies of abstract of the paper(s) shall be submitted to respective Technical Directors by September 30, 2019. The abstract should be of approximately 200-300 words in length, single spacing, MS Word document, Times New Roman Font with 12 Font size. Technical Directors will decide on the papers to be presented during oral sessions or through a poster presentation. After receiving the acceptance, full-length paper for oral presentation should be e-mailed to the respective technical directors. Detailed guidelines for oral as well as poster presentations, are available on the ISAE and Convention web site. Souvenir along-with CD will be distributed during registration. The certificates will be issued to participants for attending the convention (without oral/poster presentation) and presenting the paper in session (oral/poster presentation).

Contact details of Technical Directors are as follows:

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Mahatma Phule Krishi Vidyapeeth

Mahatma Phule Krishi Vidyapeeth (MPKV), Rahuri is the premier State Agricultural University in Maharashtra that renders services in education, research and extension education to the farmers. The University came into existence in 1969. The jurisdiction of the university includes Constituent (09) and Private Colleges (64), Agricultural Research Stations (27) and Krishi Vigyan Kendras spread over 10 districts of the Western part of the Maharashtra. The main campus of MPKV is located at Rahuri, Dist. Ahmednagar, Maharashtra on area of 800 ha. The university provides quality education both at UG and PG levels. The University has released 255 varieties/ hybrids of field, forage and horticultural crops and developed 35 farm implements and has developed 1471 technologies for the farmers. The University celebrated Golden Jubilee year during 2018-19.

Dr. Annasaheb Shinde College of Agricultural Engineering and Technology

The College of Agricultural Engineering was established in 1969 (now renamed as Dr. Annasaheb Shinde College of Agricultural Engineering and Technology) for offering under graduate course in Agricultural Engineering. The college also offers post graduate programmes leading to M. Tech. (Agricultural Engineering) and Ph.D. in Irrigation and Drainage Engineering, Soil and Water Conservation Engineering, Farm Machinery and Power Engineering and Processing and Food Engineering. Dr. Annasaheb Shinde College of Agricultural Engineering and Technology is celebrating its Golden Jubilee Year in 2019-20.

About Pune

The 54th Annual Convention and International Symposium are being held in Pune. The city of Pune is also known as 'Cultural Capital of Maharashtra' and has historical relevance as the capital of Peshvas, the Prime Minister of Maratha Kingdom. Apart from its history and culture, it is also known for its legendary position in information and technology centre and educational hub. Many of the leading Government, Private IT industries and educational institutes now have their base in Pune. Pune is considered to be a preferred destination for students and professionals of the country. Pune also has the headquarters of many prestigious National Level Research Institutes and State Government Departments.

Climate

In January, a pleasant and cool climate in Pune can be enjoyed. In January, the days are bright, sunny and warm with maximum temperature around 29°C and mornings, evenings and nights are cold with minimum temperature around 10-16°C. The delegates are advised to have light warm clothing with them.

How to reach Pune:

The Pune can be reached by bus, train and air from different parts of the country. Pune railway junction has direct trains on the broad gauge network to most of the major Indian destinations such as New Delhi, Mumbai, Chennai, Kolkata, Jammu Tawi, Ahmedabad, Bhubneshwar, Jaipur, Bangalore, Nagpur, Bhopal and Thiruvananthapuram. The international airport in Pune is well connected by daily domestic airlines and international flights. It is situated at 15 km from Convention Venue. The other nearest airport from Pune is Mumbai Airport which is around 150 km by road distance. Shirdi airport is about 200 km from Pune, which is well connected by 4 hours road journey.

Tourist attractions near Pune:

- **Mahabaleshwar and Panchgani** : Famous hill station within 120km from Pune.
- **Shirdi Saibaba and Shani Shinganapur**: 180 km from Venue location.
- **Jyotirlingas** : Three of the twelve Jyotirlingas : Bhimashankar, Pune (75 km), Ghreshmeshwar Aurangabad (200 km) and Trimbakeshwar (200 km).
- **Ashtavinayakas** : Three of eight important Ganesh temples are within 50 km from Pune.
- **Ajantha and Ellora** : The UNESCO heritage sites, Ajantha and Ellora caves are within 250 km from Pune.
- **Lonawala**: Hill station at 50 km.
- **Alibaugh**: Sea Beach at 140 km from Pune.
- **Vist to Central Campus, MPKV, Rahuri and Shirdi** : A vist to central campus of MPKV, Rahuri and pilgrim places namely Shirdi and Shanishinganapur will be arranged from venue of location (on afternoon of third day of convention (9th Jan).

Sponsorship and Advertisement:

Industry partners across the country are invited for various categories of sponsorship and advertisement in the compendium that will be released during the inaugural function of the Convention.

Platinum sponsors (Rs. 5 Lakh), Diamond (Rs. 4 Lakh), Gold (Rs. 3 Lakh), Silver (Rs. 2 Lakh) and other (Rs 1.0 lakh)

In additions to this the industries are encouraged to sponsor lunch, dinners and registration kits for the Convention.

A compendium containing lead papers and abstract will be published and released during the conference. We welcome advertisements in the Compendium and Industrial Exhibition at the venue of the convention. The rates of the advertisements for the compendium are:

1. Backcoverpage (colour)8.5"X11"	:Rs40,000
2. FrontInside(colour)8.5"X11"	:Rs35,000
3. BackInside(colour)8.5"X11"	:Rs35,000
4. Fullpageinner(colour)8.5"X11"	:Rs25,000
5. Fullpageinner(B/W)8.5"X11"	:Rs20,000
6. Halfpage(B/W)8.5"X11"	:Rs10,000

Amount for sponsorship/advertisement may be remitted through Cheque/DD/Online Bank transfer in the same manner as registration fee.

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**54th ISAE Annual Convention and International Symposium on
“AI Based Future Technologies in Agriculture”**

January 7-9, 2020
Pune, Maharashtra, India

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E-mail: _____ Mob: _____

Gender: _____ Age: _____ Nationality: _____

ISAE Member No. _____

Number of accompanying persons: _____

Mode of payment: Cash/NEFT/RTGS/IMPS/UPI/Demand Draft: _____

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Online payment through Debit card/ Credit card/ net banking can also be made on www.isae.in

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