



汕頭大學
SHANTOU UNIVERSITY



AGRI INTELLIGENCE 2026

21 DAYS WINTER SCHOOL ON
APPLICATION OF ARTIFICIAL INTELLIGENCE
IN AGRICULTURE AND ALLIED SCIENCES

25.02.2026
TO
17.03.2026



JOINTLY ORGANIZED BY

**SOCIETY FOR AGRICULTURE, ALLIED SCIENCES AND
TECHNOLOGY (SAAST), ODISHA**

**DEPARTMENT OF AGRICULTURAL ENGINEERING
RAJIV GANDHI UNIVERSITY
(A CENTRAL UNIVERSITY), ARUNACHAL PRADESH**

IN COLLABORATION WITH

UNIVERSITY OF MARYLAND, USA

SHANTOU UNIVERSITY, CHINA

**DIRECTORATE OF EXTENSION EDUCATION,
UTTAR BANGA KRISHI VISWAVIDYALAYA,
COOCH BEHAR, WEST BENGAL**

**ICAR - AGRICULTURAL TECHNOLOGY APPLICATION
RESEARCH INSTITUTES (ATARI), KOLKATA, WEST BENGAL**



***SCAN
TO
REGISTER***



***SCAN
TO
PAY***

LAST DATE OF REGISTRATION - 23.2.26

DATE OF EVENT - 25.2.26 -17.3.26

HYBRID MODE

OFFLINE (25 SEATS AT SOCIETY HEADQUARTER)

ONLINE (REMAINING PARTICIPANTS)

About SAAST, Odisha

Society for Agriculture, Allied Sciences and Technology (SAAST) is a registered society under the Societies Registration Act XXI OF 1860. It was founded and established in the year 2023 with an aim and objective of exchanging ideas, concepts, and knowledge regarding the application of technology to enhance the output of agricultural sustainability. SAAST is also dedicated for the advancement in education, research and development, technology dissemination, and awareness programs in the domains of agriculture and allied sectors for the benefit of farmers, students, and other stakeholders. SAAST primarily covers the department of Agronomy, Horticulture, Entomology, Plant Pathology, Plant Breeding & Genetics, Crop Physiology and Biochemistry, Soil Science and Agricultural Chemistry, Agriculture Engineering, Agri. Stat & Economics, Forestry, Animal Husbandry & Dairy Technology, Veterinary Sciences, Fisheries, Social Sciences and other Applied Sciences etc.

Department of Agricultural Engineering Rajiv Gandhi University (A Central University), Arunachal Pradesh

Inaugurated in 2020 within the Faculty of Agricultural Sciences, the Department of Agricultural Engineering stands as the pioneering institution of its kind in Arunachal Pradesh. Its establishment was driven by the goal of advancing mechanization in the northeastern region through the cultivation of technically proficient agricultural professionals. Presently, the department offers courses to four-year (B.Sc.) Agriculture. The Agricultural Engineering Department upholds a set of core values that guide its mission and activities. At the heart of its principles is a commitment to innovation, encouraging the exploration of cutting-edge technologies and creative solutions to enhance agricultural processes. Sustainability is a paramount value, emphasizing the development and promotion of environmentally friendly and resource-efficient practices that contribute to the long-term well-being of agriculture, encompassing economic, social, and environmental dimensions. The department places a strong emphasis on education and training, striving to provide students with the knowledge and skills necessary to tackle challenges in the ever-evolving field of agricultural engineering. Ethical conduct and integrity are integral to its identity, fostering an environment of honesty, transparency, and responsibility in research, education, and industry engagement. Collaboration, both interdisciplinary and global, is actively promoted to address complex agricultural issues. Service to society is a key focus, with a dedication to positively impacting communities through research, outreach programs, and technology transfer. Continuous improvement is valued, ensuring that curricula, research methodologies, and outreach strategies remain relevant and responsive to technological advancements and changing agricultural needs. Community engagement, diversity, and inclusion round out the department's values, emphasizing active involvement, equal opportunities, and respect for the diverse perspectives within its community.

About University of Maryland, USA

University of Maryland (UMD) is a leading public research university in College Park, USA, known for academic excellence and innovation. Founded in 1856, it focuses on high-quality education, impactful research, and community service. Popularly called the "Home of the Fearless," UMD prepares students to become confident leaders and problem-solvers in a global society.

About Shantou University, China

Shantou University, founded in 1981 with the approval of the National State Council, is a comprehensive university under the jurisdiction of the Guangdong Province and co-developed by the Ministry of Education, the Guangdong Provincial Government and the Li Ka Shing Foundation. STU is the first Demonstration University for Institutional Reform in Guangdong and the only public university in the world that constantly subsidized by a private foundation, namely the Li Ka Shing Foundation.

About Directorate of Extension Education, Uttar Banga Krishi Viswavidyalaya, Cooch Behar, West Bengal

The Department has been come into existence in 2001 with the inception of this University from the parent university Bidhan Chandra Krishi Viswavidyalaya. Previously the Department was delineated as an extension wing of North Bengal Campus under Bidhan Chandra Krishi Viswavidyalaya to carry out teaching and research activities in Extension Education besides undertaking field extension activities in the adopted villages of North Bengal. Thereafter the Department grew leaps and bounds under the dynamic leadership of well known personalities in the discipline of Extension Education. The Department is shouldering the very responsibility of teaching, research and extension on agricultural extension approaches till date with a scarcity of man power. The Department of Agricultural Extension imparts undergraduate and post graduate teaching to the students under the semester system. The students are provided in depth learning both in theoretical and practical aspects of extension education. They are provided practical learning by carrying out activities pertaining to extension education methodologies and approaches. The undergraduate students are also given the exposure of field extension work under Rural Agricultural Work Experience programme. The students are groomed through practicing agricultural diagnostic services of soil, water and plants and gaining the acumen of generating appropriate measures. Such a learning process is surely improving their organizational skill by practice, enriches their knowledge pool through collective wisdom, expands their creative faculties through repetitive analysis and interpretation and ultimately refines them as professional through sharing and interaction.

About ICAR - Agricultural Technology Application Research Institutes (ATARI), Kolkata, West Bengal

ICAR-Agricultural Technology Application Research Institute, Kolkata (ATARI) is a regional institute of the Indian Council of Agricultural Research that supports the transfer of agricultural technologies to farmers. It coordinates and monitors Krishi Vigyan Kendras across West Bengal, Odisha, and the Andaman & Nicobar Islands. ATARI works to bridge research and field application by promoting improved farming practices, training, and extension services for sustainable agricultural development.

About the Winter School

The 21 Days Online Winter School on “Artificial Intelligence in Agriculture and Allied Sciences” is designed to provide comprehensive theoretical knowledge and practical exposure to the application of artificial intelligence in modern agriculture. With the rapid integration of digital technologies, AI has emerged as a transformative tool for enhancing productivity, sustainability, and decision-making across agricultural and allied sectors.

This online winter school aims to familiarize participants with core concepts of artificial intelligence, machine learning, data analytics, computer vision, and their real-world applications in crop production, soil and water management, pest and disease diagnosis, livestock and fisheries management, precision farming, climate-smart agriculture, and agri-supply chains. The programme will also highlight national initiatives such as Digital Agriculture Mission, Agri-Stack, and AI-driven agricultural innovations.

Conducted entirely in online mode, the programme will feature live interactive lectures, virtual hands-on training, expert talks, case studies, and group-based learning, enabling participants from diverse geographical locations to benefit without physical constraints. The winter school is intended for students, research scholars, faculty members, scientists, extension professionals, and agri-tech enthusiasts seeking to enhance their understanding of AI-enabled agricultural systems.

By the end of the programme, participants will gain practical insights into AI tools and platforms, develop interdisciplinary perspectives, and be better equipped to apply artificial intelligence for sustainable and smart agricultural development.

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Aims & Objectives

- To provide a strong foundation in Artificial Intelligence, Machine Learning, and Data Analytics for applications in agriculture and allied sciences.
- To familiarize participants with AI-based solutions for crop production, soil and water management, pest and disease diagnosis, and livestock and fisheries management.
- To offer practical exposure to AI tools, platforms, and real-world case studies for solving agricultural problems.
- To promote understanding of precision farming, climate-smart agriculture, and digital agriculture systems.
- To highlight national initiatives such as the Digital Agriculture Mission and Agri-Stack for building smart agricultural ecosystems.
- To develop interdisciplinary skills and innovative thinking for sustainable and technology-driven agricultural development.

UNIQUENESS OF THE SCHOOL

- Weekly assignments with direct interaction and weekly query-solving sessions with experts
- Interdisciplinary curriculum integrating Agriculture, Engineering, and Data Science
- Structured 21-day intensive modular programme
- Outcome-based certification aligned with defined learning objectives
- Compulsory attendance with certification strictly based on participation and outcomes

TARGET PARTICIPANTS

- Undergraduate and Postgraduate students of Agriculture and Allied Sciences
- Research Scholars
- Faculty members and Scientists
- Extension professionals and Agri-entrepreneurs
- Professionals from Agri-tech industries and startups



KEY FOCUS AREA

1. **AI-ML Fundamentals:** Learn the core concepts of Artificial Intelligence and Machine Learning that power modern smart farming and decision-support systems.
2. **Basics (Python/R) for AI Applications in Agriculture:** Get hands-on exposure to Python and R for analyzing agricultural data, building models, and automating farm insights.
3. **Precision and Smart Agriculture:** Explore how AI, sensors, and data analytics enable precise input use, higher productivity, and sustainable farm management.
4. **Crop and Soil Health Monitoring:** Use AI tools and digital imaging to assess crop vigor, nutrient status, and soil conditions for timely interventions.
5. **Yield Prediction and Climate-Smart Agriculture:** Apply machine learning models to predict crop yield and optimize farming practices under changing climatic conditions.
6. **Pest and Disease Detection Using AI:** Learn how computer vision and AI help identify crop pests and diseases early for faster and more accurate control.
7. **Remote Sensing, GIS and IoT:** Integrate satellite data, geographic information systems, and IoT devices to monitor farms in real time and improve decision-making.
8. **Google Earth Engine (GEE) in Modern Agriculture:** Harness cloud-based satellite data through GEE to analyze crop health, land use, drought patterns, and vegetation indices.
9. **AI for Smart Silkworm Rearing Systems:** Use AI-based monitoring and automation to improve silkworm health, productivity, and quality of silk.
10. **Artificial Intelligence for Energy Management in Agriculture:** Optimize the use of electricity, solar power, and farm machinery using AI for cost-effective and eco-friendly operations.
11. **AI in Fisheries, Aquaculture and Allied Sectors:** Apply AI to monitor water quality, feed efficiency, and fish health for higher yield and sustainable aquatic farming.
12. **AI in Farm Mechanization, Robotics and Drone-Based Applications:** Discover how smart machines, robots, and drones are transforming field operations, spraying, sowing, and crop monitoring.
13. **AI Applications in Livestock, Poultry and Dairy Management:** Use AI to track animal health, feeding, milk production, and disease control for efficient and profitable livestock farming.

INTERNATIONAL SPEAKERS



DR. SUBHA M. ROY

Post Doctoral Researcher
Smart Aquaculture Research Centre
Chonnam National University, Republic of Korea



DR. HEMENDRA KUMAR

Precision Agriculture Specialist
College of Agriculture & Natural Resources
University of Maryland, USA



DR. BOGIREDDY CHANDRA

Visiting Scholar
Shantou University, China



DR. FITSUM TESHOME

Precision Agriculture Lab
University of Maryland, USA

NATIONAL SPEAKERS



DR. SANTOSH KUMAR MAGADAM

Scientist-D and Head,
Regional Sericultural Research Station,
Central Silk Board, Govt. of India



DR. MANJUNATHA GOWDA DC

Senior Scientist
Division of Vegetable Crops
ICAR-IIHR, Bengaluru



DR. OM PRAKASH

Principal Scientist
Division of Agril Extension
ICAR-IARI, New Delhi



DR. RAJENDRA MACHAVARAM

Associate Professor
Department of Agricultural & Food Engr.,
IIT Kharagpur, India

NATIONAL SPEAKERS



DR. R. SARITHA

Principal Scientist
Acharya NG Ranga Agricultural University,
Lam, Guntur, Andhra Pradesh



DR. CHAITANYA MADHAW PAREEK

Assistant Professor
Woxsen University,
Hyderabad, Telangana, India



DR. BHARGAV PRAJWAL PATHRI

Associate Professor
School of Robotics & Automation
Woxsen University, Hyderabad



PROF. G. BHUPAL RAJ

Former Director Extension (PJ TSAU)
Dean of Agriculture, School of Agriculture,
SR University, Warangal

NATIONAL SPEAKERS



DR. VISHAKA G.V

Scientist C
Central Silk Board, Ministry of Textiles
Govt.of India, Bengaluru



DR. LAKSHMANA KELLA

Principal Scientist (Extension) and Coordinator
ANGRAU, DAATTC, VIZIANAGARAM, AP



PROF. SUKANTA BISWAS

Department of Veterinary and Animal Husbandry
Extension Education,
Faculty of Veterinary and Animal Sciences
WBUAFS, Kolkata



RAGHAVENDRA SOMEPALLI

Cloud Service Operations - Analyst
PTC Software (India) Pvt. Ltd., Pune

ORGANIZING SECRETARIES



DR. NRV GOWRIPATHI RAO

Assistant Prof & Head
Department of Agril. Engg.
Rajiv Gandhi University, Arunachal Pradesh



DR. SHRUTI MOHAPATRA

Member, SAAST, Odisha
Researcher
University of South-eastern Norway

ORGANIZING COMMITTEE MEMBERS

- Dr. Vikas Kumar Ravat, Asst Prof, Rajiv Gandhi University, Arunachal Pradesh
- Dr. Ashok Kumar Yadav, Asst Prof, Rajiv Gandhi University, Arunachal Pradesh
- Dr. RPN Saxena, Asst Prof, Rajiv Gandhi University, Arunachal Pradesh
- Dr. Bharat Kumar Allam, Asst Prof, Rajiv Gandhi University, Arunachal Pradesh
- Mr. Saiprasad Prakash Bhusare, ICAR-Central Institute of Fisheries Education, Mumbai
- Mr. Savaliya Bhautik Dilipbhai, ICAR-Central Institute of Fisheries Education, Mumbai
- Dr. Nikhil C, Asst Prof., Tezpur University, Assam
- Dr. Shruti Mohapatra, Society For Agriculture, Allied Sciences And Technology, Odisha
- Dr. Jyoti Prakash Mishra, SMS, KVK, Mayurbhanj-I
- Mr. Jayashankar Pradhan, SMS, KVK, Gajapati
- Dr. Sushree Purabi Panigrahi, School Of Agriculture, Driems Univerity, Cuttack
- Dr. Pallabi Phukan, ICAR-KVK, Longleng, Nagaland
- Dr. Jayalaxmi Pawar, UHS, Baghalokot
- Dr. Anandita Srivatsava, Bihar Animal Science University, Bihar
- Dr. Swapnil Bharti, Bihar Agriculture University, Sabour
- Dr. Satendra Kumar, CSUAT, Kanpur
- Dr. Yogesh Pandey, SKUAST, Kashmir
- Dr. R. Saritha, RARS, ANGRAU, Lam, Guntur
- Dr. Lakshmana Kella, Principal Scientist & Coordinator, ANGRAU DAATTC, Vizianagaram, AP
- Dr. Suryakanta Kashyap, National Associate, ICARDA, New Delhi
- Dr. Nisha Sahu, ICAR-IISS, Bhopal
- Dr. Preeti Yadav, ICAR-ATARI, Kanpur
- Dr. Narendra Vn, ICAR-NRC On Mithun, Nagaland
- Dr. Chinmayee Patra, College Of Agriculture, OUAT, Chiplima
- Dr. Sayanika Borah, Assam Agriculture University, Assam
- Dr. Anju A Bhagat, MPKV, Rahuri
- Dr. Praveen Kumar, KVK, SKUAST
- Dr. Priya Muruguran, TNAU, Combatore
- Dr. Abhiram Dash, OUAT, Bhubaneswar
- Dr. Satya Prakash Barik, Faculty Of Agriculture And Allied Sciences, CV Raman Global University, BBSR

REGISTRATION DETAILS

Registration Link:

<https://forms.gle/ZE2ycrRQ9pPD64UI7>

Registration Fee

Category	Fee
UG Students	₹600
PG Scholars	₹800
PhD Scholars	₹1,000
Faculty / Scientist / Academician	₹1,500
Industry Professionals	₹3,000
International Students	USD 30
Hard Copy of Certificate (Optional)	₹500 + Registration Fee

Payment Method

Participants are requested to pay the registration fee via UPI / Bank Transfer using the details below:

Account Name:

Society for Agriculture, Allied Sciences and Technology

Account Number:

110264269994

Bank Name:

Canara Bank

IFSC Code:

CNRB0005932

UPI ID:

334002895269994@cnrb

(BHIM, PhonePe, Google Pay, Paytm, CRED, Canara AI supported)



SCAN
TO
PAY

Important Note

1. Make the payment using the above bank or UPI details.
2. Save the transaction receipt / screenshot.
3. Note the UTR / Transaction ID.
4. Fill out the registration form and upload the receipt.

- ✓ Registration will be confirmed only after successful fee payment and receipt upload.
- ✓ Please ensure correct UTR number is entered in the form.

Reach Us Out



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