



International Conference on Artificial Intelligence and Machine Learning for Agro-Ecosystems (ICAIML-AE 2026)

Hybrid Mode

Organized by
Vishwakarma University, Pune, Maharashtra, India

In collaboration with
SUNY Binghamton University
Thomas J. Watson College of Engineering and Applied Science, New York, USA

2-3 July 2026

Vishwakarma University,
Pune, Maharashtra, India

About the Conference:

Agriculture is rapidly evolving into a **data-driven ecosystem** where decision-making increasingly relies on intelligent systems capable of interpreting complex signals from **soil health, climate patterns, crop physiology, remote sensing data, IoT devices, and market dynamics**.

Artificial Intelligence and Machine Learning have enabled promising advances in **precision agriculture, crop analytics, and farm automation**. However, real-world adoption continues to face challenges such as **limited connectivity, data sparsity, explainability requirements, sustainability constraints, and the need for trustworthy and deployable solutions**.

ICAIML-AE 2026

serves as an international forum for **high-quality, peer-reviewed research and practical innovation in AI/ML for agro-ecosystems**. The conference emphasizes solutions that are:

- Robust and scalable
- Interpretable and trustworthy
- Energy-aware and sustainable
- Deployable in diverse agricultural environments

Through **research presentations, keynote talks, and focused technical sessions**, the conference aims to foster collaboration between **academia, industry, government, and the global agri-innova**

Call for Papers

Research manuscripts are invited in the following tracks and approved special session:

Track 1: Core Artificial Intelligence & Machine Learning

- Machine Learning, Deep Learning & Hybrid Models
- Agentic AI, Generative AI & Large Language Models (AGIX)
- Explainable AI (XAI) & Interpretable Models
- Reinforcement Learning & Multi-Agent Systems
- Data Mining & Predictive Analytics
- AI Model Generalization & Robustness
- Federated Learning & Distributed AI

Track 2: Intelligent Agro-Ecosystems & Smart Farming

- Precision Agriculture & Site-Specific Crop Management
- Crop Yield Prediction & Disease Detection
- Soil Health Monitoring & Nutrient Analytics
- Irrigation Intelligence & Water Resource Optimization
- Livestock Monitoring & Animal Health Analytics
- Smart Greenhouses & Controlled Environment Agriculture
- Agro-Ecological Modeling & Biodiversity Analytics
- Farm Automation & Robotics in Agriculture

Track 3: Sensing, IoT & Digital Agriculture Infrastructure

- IoT Architectures for Smart Farming
- Sensor Networks & Real-Time Monitoring Systems
- UAVs, Drone Analytics & Aerial Imaging
- Remote Sensing & Satellite Data Analytics
- Hyperspectral & Multispectral Imaging
- Edge AI & TinyML in Agriculture
- Cloud Computing & High-Performance Computing for Agro-Systems
- Digital Twins & Simulation Models for Farms

Track 4: Sustainability, Climate & Environmental Intelligence

- Climate-Resilient and Adaptive Agriculture
- AI for Carbon Footprint Estimation & Reduction
- Green AI & Energy-Efficient ML Models
- Water-Energy-Food Nexus Modeling
- Sustainable Resource Management
- Disaster Prediction & Risk Analytics in Agriculture

- Environmental Impact Assessment using AI

Track 5: Food Security, Supply Chain & Agri-Business Intelligence

- AI for Food Security & Nutritional Analytics
- Supply Chain Optimization & Smart Logistics
- Blockchain for Agro Supply Chains
- Demand Forecasting & Market Intelligence
- Agri-FinTech & Credit Risk Analytics
- AI in Agri-Business Management

Track 6: Industry, Policy & Real-World Deployments

- Industrial Case Studies in Smart Agriculture
- Scalable AI Deployment in Rural Infrastructure
- AI for Agricultural Policy & Governance
- Public-Private Partnerships in AgriTech
- Socio-Economic Impact Assessment of AI Adoption
- Startups, Innovation & Technology Transfer in AgriTech

Approved Special Session 1:

Legal, Ethical and Regulatory Frameworks for AI in Agro-Ecosystems and Biotechnology

Covering Topics:

- Intellectual Property, Innovation Rights & Technology Transfer
- Biosafety, Biosecurity & Risk Governance.
- Data Governance, Digital Agriculture & Privacy Law.
- Environmental, Climate & Sustainability Law.
- Ethical Frameworks, Equity & Responsible Innovation.
- International Trade, Market Regulation & Standards.
- Liability, Tort Law & Dispute Resolution.
- Governance Regulation & Institutional Architecture.
- Cross-Border Dispute Resolution for Transnational AI-Biotech Harms.
- Food Systems, Public Health & Consumer Protection Law.
- Emerging Technologies, Convergence & Future Legal Frontiers.

Special Session 2:

AI-Driven Management and Entrepreneurship in Agri-Ecosystems

Covering Topics:

- AI in Agri-Marketing and Market Intelligence
- Agri-Finance, FinTech, and Risk Analytics
- Human Resource Analytics & Rural Workforce Transformation
- Operations, Supply Chain, & Smart Logistics in Agri-Systems
- Strategy, Innovation, and Agri-Entrepreneurship

*Note: • Papers submitted under the Special Session must be clearly aligned with the overall conference theme of "AI and Machine Learning for Agro-Ecosystems."
• Special Session papers may be submitted through the dedicated Special Session track on Springer Meteor.*

Publication Information

All accepted, registered, and presented papers will be considered for publication in:

Atlantis Highlights in Intelligent Systems (Springer Nature – Atlantis Press)

Conference proceedings will include:

- Assigned ISSN
- DOI for each article via CrossRef
- Metadata submission to indexing databases including Dimensions, IET Inspec, CNKI, and others where applicable
- Submission to **Web of Science - Conference Proceedings Citation Index (CPCI)** (subject to acceptance)

*Indexing is subject to evaluation and approval by respective databases.

Important Dates

Paper Submission Opens	15 February 2026
Last Date for Full Paper Submission	25 April 2026
Notification of Acceptance	20 May 2026
Camera Ready Submission	18 – 25 June 2026
Registration Deadline	30 June 2026
On-site Registration Available on	2 July 2026
Conference Dates	02 – 03 July 2026

Registration (Authors – Paper Presenters)

Category	Indian (INR)	Foreign (USD)
Faculty / Academician	₹10,000	\$200
Industry Author	₹12,000	\$250
PhD Scholar	₹9,000	\$180
PG / UG Student	₹8,000	\$180

Registration Includes

Publication, Conference Kit, Meals, Certificate, and Access to Sessions.

For **Non-presenting participants**, please visit the conference website.

Paper Submission

Submit your paper at:

<https://meteor.springer.com/ICAIML-AE2026>

or Scan QR Code to Submit



For more details visit:

<https://icaiml-ae.vupune.ac.in/>

Keynote Speakers:

Michael Testani

Senior Director of Outreach and Engagement
Thomas J. Watson College of Engineering & Applied Science
Binghamton University, USA

Dr. S. D. Ramteke

Senior Scientist, ICAR, Pune, India

Jason Krohn

Head of Data & AI Technology
Syngenta, Chicago, USA

Salil Bongale

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