

# Special Track Proposal Format

## 2nd International Conference on Advances in Artificial Intelligence for Society (ICA2S-2026)

Organized by **Indian Institute of Information Technology Bhopal, India**  
In collaboration with **University of Vizja, Warsaw, Poland**

### 1. Title of the Special Track

**Artificial Intelligence for Sustainable Agriculture and Global Food Security**

### 2. Track Description

Agriculture and food systems are facing unprecedented challenges due to climate change, population growth, resource scarcity, and supply chain disruptions. Ensuring global food security while maintaining sustainable agricultural practices has become a critical priority. Artificial Intelligence (AI) is emerging as a transformative technology capable of addressing these challenges by enabling data-driven decision-making, precision farming, and efficient resource management.

This special track focuses on the application of AI techniques including machine learning, deep learning, computer vision, and Internet of Things (IoT) integration in modern agriculture and food systems. It aims to explore innovative solutions for crop monitoring, disease detection, yield prediction, soil analysis, irrigation optimization, and food supply chain management. The track also emphasizes the role of AI in enhancing agricultural resilience, reducing environmental impact, and supporting sustainable farming practices.

By bringing together researchers, practitioners, and industry experts, this track seeks to foster interdisciplinary collaboration and promote scalable, efficient, and intelligent solutions that contribute to global food security and agricultural sustainability.

### 4. Topics of Interest

Topics include but are not limited to:

1. AI for Precision Agriculture and Smart Farming
2. Crop Disease Detection Using Deep Learning
3. Remote Sensing and Computer Vision in Agriculture
4. AI-Based Crop Yield Prediction and Forecasting
5. Soil Health Monitoring and Nutrient Analysis
6. Intelligent Irrigation and Water Resource Management
7. IoT and Edge AI in Agricultural Systems
8. AI for Food Supply Chain Optimization
9. Climate-Smart Agriculture Using AI
10. Sustainable Farming and Resource Optimization
11. Robotics and Automation in Agriculture
12. AI for Food Quality Assessment and Safety

**2nd International Conference on Advances in Artificial Intelligence for Society (ICA2S-2026)**

## 5. Special Track Organizers

**Name:**

Designation: Samuel-Soma M. Ajibade

Department: Associate Professor, School of Computing and Artificial Intelligence, Faculty of Engineering and Technology,

Institution: Sunway University, Petaling Jaya, 47500 Selangor Darul Ehsan, Malaysia.

Country: Malaysia

Email: [samuelma@sunway.edu.my](mailto:samuelma@sunway.edu.my)

ORCID (optional): 0000-0002-3452-1889

**Co-Organizer (if any):**

Name: Dr. Archana Kollu

Designation: Dean – International Relations

Department: Course Faculty, Department of Computer Engineering

Institution: PCET's Pimpri Chinchwad College of Engineering and Research (PCCOER)

Country: India

Email: [archana.kollu@pccoer.in](mailto:archana.kollu@pccoer.in)

ORCID (optional): : <https://orcid.org/0000-0001-7375-1137>

## 6. Contact Information

Primary Contact Person: Samuel-Soma M. Ajibade

Email: [samuelma@sunway.edu.my](mailto:samuelma@sunway.edu.my)

Phone (optional):