



UNESCO Chair on
Experiential Learning
for Sustainable Innovation
& Development

Amrita Vishwa Vidyapeetham
Kerala, India



SCHOOL FOR
SUSTAINABLE
FUTURES

3-day Certificate Course

Integrated Capacity Building on Digital Agriculture: Crop Models, AI, IoT, & Risk Mapping



TAG: Sustainable Agriculture and Livelihood

Hands-on learning in crop modelling, AI, IoT, GIS, remote sensing and climate-smart risk analytics.



15-17
July 2026



Amrita Vishwa Vidyapeetham,
Kerala, India



Certificate co-issued by:
UNESCO Chair on Experiential Learning for Sustainable Innovation & Development;
Amrita School for Sustainable Futures



Registration Deadline:
25 June 2026



Crop Modelling



AI & Machine Learning



Remote Sensing



IoT Monitoring



Risk Mapping



Course Overview

Digital Agriculture for Smarter Farming and Climate-Informed Decisions

Digital agriculture is reshaping how farming systems are monitored, analysed and managed through data, models and smart technologies. Across research and practice, tools such as crop modelling, AI/ML, IoT sensing, remote sensing and climate analytics are helping improve crop monitoring, resource use and informed agricultural planning. This 3-day certificate course brings these themes together through expert-led sessions, practical demonstrations and real-world examples for students, researchers, faculty and professionals.



What the course covers

- Expert-led sessions
- Practical demonstrations
- Tools, models and data
- Real-world applications



Why it matters

- Climate-smart agriculture
- Data-driven decision making
- Risk-aware planning
- Practical digital exposure



Learning mode

- In-person interactive programme



3-Day Certificate Course

Objectives, Skills & Outcomes

Build practical digital agriculture capabilities for climate-smart and data-informed agricultural decision-making.



Crop Modelling

Growth, yield & scenarios



AI & ML

Prediction & analytics



IoT Monitoring

Real-time farm data



Remote Sensing

Satellite crop insights



GIS & Risk Mapping

Climate-smart risk interpretation



Climate Analytics

Climate variability & planning

Course Objectives

- ✓ Build practical understanding of crop models, AI/ML, IoT and remote sensing
- ✓ Work with weather, soil, satellite and field monitoring data
- ✓ Explore digital tools for crop monitoring and agricultural analysis
- ✓ Connect technology and data to climate-smart agriculture

Learning Outcomes

- ✓ Understand key concepts and practical applications in digital agriculture
- ✓ Interpret crop information from models, sensors and satellite data
- ✓ Recognize how digital tools support analysis and decision-making
- ✓ Gain a clear foundation for further research and practical application

Why Attend?

- ✓ Expert-led sessions with practical demonstrations
- ✓ Real-world examples across crop modelling, AI/ML, IoT, remote sensing and GIS
- ✓ A structured introduction to climate-informed agricultural tools
- ✓ Useful for applied learning, research and professional development





3-Day Certificate Course

3-Day Learning Journey

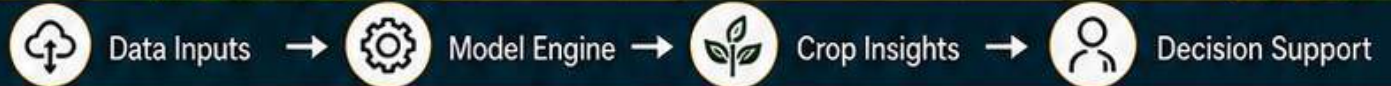
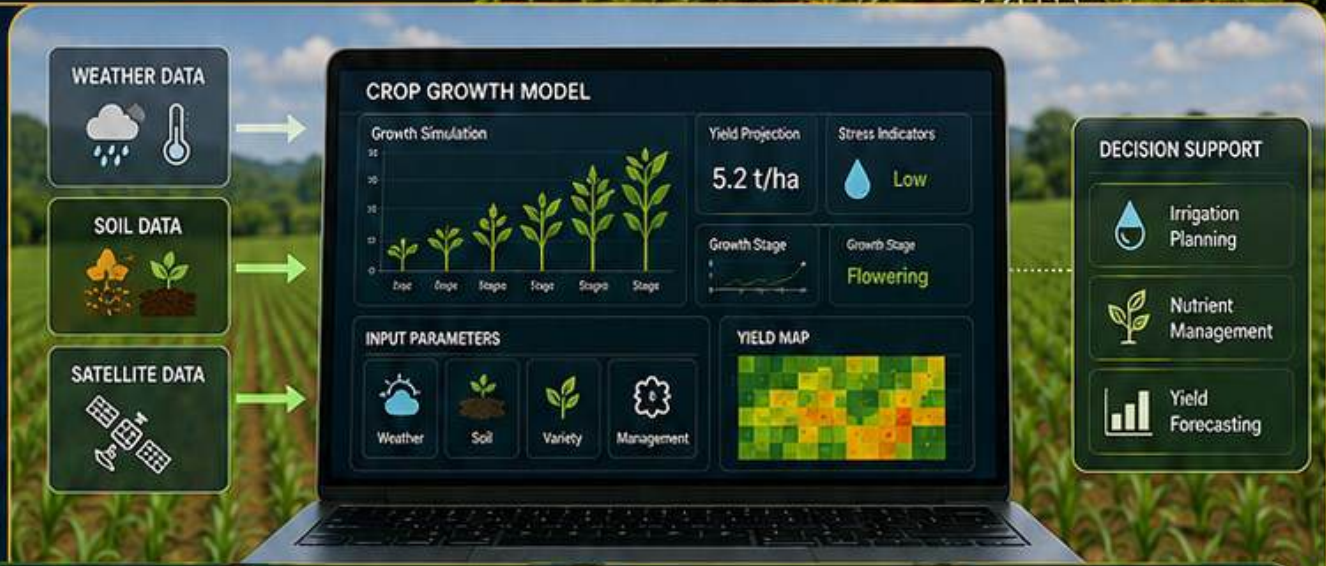
Build. Explore. Apply.



DAY 1

Foundations of Digital Agriculture & Crop Modelling

- Foundations of Digital Agriculture
- Fundamentals of Crop Modelling
- Data Platforms for Weather, Soil & Remote Sensing



DAY 2

IoT & AI Applications

- IoT for Digital Agriculture: Real-Time Farm Monitoring and Decision Support
- AI & Machine Learning for Crop Yield Prediction



By the end of Day 1 & Day 2, you will:



Understand core digital agriculture concepts



Work with weather, soil and satellite data



Build and interpret basic crop models



Recognize how AI/ML supports crop monitoring and prediction



Learning Journey & Hands-on Experience

Day 3

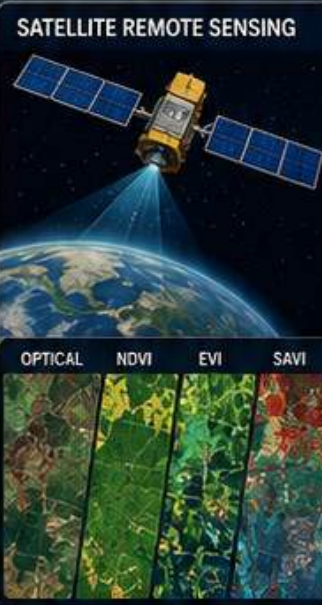
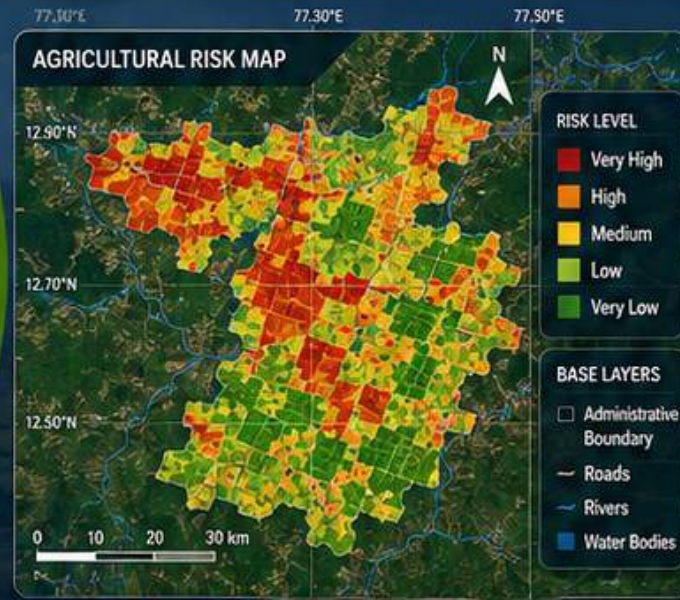


Risk Assessment, Climate Analytics & Remote Sensing

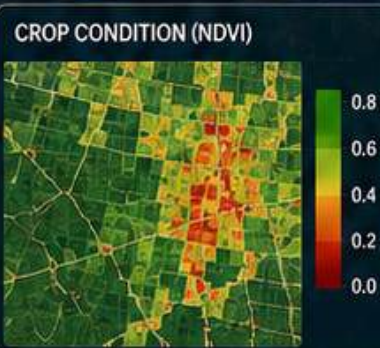
- AI/ML demo or case study for crop monitoring
- GIS-based agricultural risk mapping exercise
- Climate risk assessment and early warning-based farm decision making
- Simple risk advisory for a selected crop or region
- Remote sensing foundations for crop monitoring



- Post Evaluation
- Closing Ceremony



AI/ML INSIGHTS
Model suggests increased risk in south-east zone based on rainfall anomaly & NDVI drop.



What you will gain



Interpret crop condition maps



Understand core risk analytics concepts



Apply remote sensing for agriculture



Build early-warning and risk advisory skills



Certificate co-issued by:
UNESCO Chair on Experiential Learning for Sustainable Innovation & Development
Amrita School for Sustainable Futures



3-Day Certificate Course

Meet the Resource Persons



Dr. Debapriya Dutta

Foundations of Digital Agriculture

- Adjunct Professor, School for Sustainable Futures
- Former Scientist "G" & Head, Department of Science & Technology, Government of India

[View profile](#)



Prof. B. Soundharajan

Crop Modelling &
Climate Impact Analysis

- Professor, Amrita Vishwa Vidyapeetham
- TWAS-UNESCO Associate

[View profile](#)



Dr. Raji Pushpalatha

Climate Risk Analytics &
Data Platforms

- Assistant Professor, Amrita School for Sustainable Futures

[View profile](#)



Dr. Aryadevi R. D.

IoT for Digital Agriculture

- Assistant Professor, Amrita Center for Wireless Networks and Applications

[View profile](#)



Dr. Archana Nair

AI & Machine Learning for
Digital Agriculture

- Assistant Professor, Amrita School for Sustainable Futures

[View profile](#)



Dr. Masoud Barati

Remote Sensing for
Crop Monitoring

- Postdoctoral Fellow, Amrita School for Sustainable Futures
- Course Coordinator

[View profile](#)



Certificate co-issued by the UNESCO Chair on Experiential Learning for Sustainable Innovation & Development and Amrita School for Sustainable Futures.





UNESCO Chair on
Experiential Learning
for Sustainable Innovation
& Development



SCHOOL FOR
SUSTAINABLE
FUTURES

REGISTER NOW

Secure your seat. Build the future of digital agriculture. 

3-Day Certificate Course

Integrated Capacity Building on Digital Agriculture:
Crop Models, AI, IoT, & Risk Mapping



15–17 July 2026



Amrita Vishwa Vidyapeetham,
Amritapuri Campus, Kerala



Fee: ₹2500 + GST



Food and accommodation included



Deadline for Registration:
25th June



Contact:
events-asf@am.amrita.edu

SCAN TO REGISTER & PAY



OR VISIT



[Registration link](#)



Expert-led Sessions



Hands-on Learning



Real-world Applications



Certificate Course



SCAN • REGISTER • GROW THE FUTURE