



VIT
Vellore Institute of Technology
(Deemed to be University under section 3 of UGC Act, 1956)

VALUE ADDED COURSE ON



**INTELLIGENT SYSTEMS AND AUTOMATION
IN AGRICULTURE: A HANDS-ON
APPROACH USING ML, AI, AND ROBOTICS
(VAC2580)**

DATE: 11 MAY 2026 - 16 MAY 2026

ORGANISED BY

**VIT SCHOOL OF AGRICULTURAL INNOVATIONS AND
ADVANCED LEARNING (VAIAL), VIT, VELLORE 632014**

REGISTRATION DETAILS

Registration fee: Rs. 500/- plus Taxes

Registration Starts on: 13 March 2026

Lat date for registration: April 15 2026

Course duration: 6 Days

Eligibility: B.Sc. (Hons.) Agriculture

E-certificate will be provided for the registered participants.

Pay & Register here



<https://events.vit.ac.in/>



COURSE COORDINATORS

**Dr. Paul Mansingh J.
Dr. Gunji Bala Murali
Dr. Merlin Mathew**



COURSE OBJECTIVES

- To introduce students to the fundamentals of AI and Machine Learning in agriculture.
- To provide hands-on coding practice in Python for data analysis and image-based crop/soil identification.
- To explore NLP techniques for agriculture-related chatbots, advisory systems, and data extraction.
- To demonstrate robotics and automation applications in precision farming.
- To equip students with practical project experience on two chosen platforms (e.g., Google Colab and OpenCV).

COURSE OUTCOMES

- Understand fundamentals of ML, AI, and Robotics.
- Write basic Python programs for agricultural datasets.
- Develop simple AI and image recognition models for agri applications.
- Understand and simulate basic robotic automation concepts.

Date	Time	Topics to be covered
11-05-2026	10.00 am to 01.00 pm & 2.00 pm to 4.00 pm	Introduction to Python for AI, Python basics: variables, data types, control structures; Libraries for ML & AI: NumPy, Pandas, Matplotlib; Practical: Crop yield data visualization and basic data cleaning; Platform: Google Colab / Jupyter Notebook/Pycharm/Visual Studio Code
12-05-2026	10.00 am to 01.00 pm & 2.00 pm to 4.00 pm	Machine Learning Applications in Agriculture, Introduction to ML concepts: supervised vs unsupervised learning; Regression and classification models; Practical: Predicting crop yield or rainfall using linear regression; Image algorithms: Basics of OpenCV for leaf disease detection
13-05-2026	10.00 am to 01.00 pm & 2.00 pm to 4.00 pm	Artificial Intelligence in Smart Farming, AI overview and intelligent decision systems; Case studies: AI in irrigation control, pest detection, and weather forecasting;
14-05-2026	10.00 am to 01.00 pm & 2.00 pm to 4.00 pm	Practical: Smart irrigation model using temperature and soil moisture dataset; Platform: TensorFlow Lite / Google Colab
15-05-2026	10.00 am to 01.00 pm & 2.00 pm to 4.00 pm	Robotics and Automation in Agriculture, Basics of robotics and sensors in agri applications;
16-05-2026	10.00 am to 01.00 pm & 2.00 pm to 4.00 pm	Understanding control systems and IoT integration; Practical: Simulating a robot for seed sowing or weed detection (using TinkerCAD / Arduino IDE)

Contact Details

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