

About VIT

VIT was established with the aim of providing quality higher education on par with international standards. It persistently seeks and adopts innovative methods to improve the quality of higher education on a consistent basis. The campus has a cosmopolitan atmosphere with students from all corners of the globe. Experienced and learned teachers are strongly encouraged to nurture the students. The global standards set at VIT in the field of teaching and research spur us on in our relentless pursuit of excellence. Our Memoranda of Understanding with various international universities are our major strength.

About SELECT

SELECT offers an education in electrical engineering that provides strong fundamental knowledge, skills for employability, cross-disciplinary research and creates leaders who provide technological solutions to societal and industry problems. The school deals with research in electrical and electronics, instrumentation, power electronics and drives, control and automation which is rapidly evolving and driving innovation across industries such as energy, manufacturing, healthcare, and transportation. In electrical and electronics engineering, researchers focus on improving efficiency, miniaturization, and integration of components, with growing emphasis on renewable energy systems and IoT-enabled devices.

About SENSE:

SENSE at VIT was established for imparting state-of-the-art knowledge in Electronics and Communication Engineering and allied areas. The school has set up laboratories with excellent infrastructure in the areas of Electronics, Communication, VLSI, Embedded, Sensors and Nanotechnology. Faculties are actively involved in R&D activities and are working on research projects funded by government organizations like DRDO, ISRO (RESPOND), and DST.

About the event:

The training program's goal is to familiarize participants to design and implement an **autonomous IoT-enabled robot** that navigates **using AI-based object recognition**, integrated through **ESP32 and NetLogic IoT platform**, programmed using **Micro Python** in **Thonny IDE**, with control and monitoring via mobile application.

Course Content:

Session I - Fundamentals

9:00 AM - 1:00 PM

- Understand Edge AI concepts and IoT-based robotic communication.
- Learn to deploy and integrate AI object recognition models through NetLogic.
- Gain hands-on experience in programming ESP32 using **Micro Python** and **Thonny IDE**.

Lunch Break: 1:00 PM - 2:00 PM

Session II - Practical Session

2:00 PM - 6:00 PM

- Interface sensors, motor drivers, and IoT data handling for autonomous robot control.
- Implement and demonstrate a fully functional IoT-enabled robot responding to AI-driven decisions.

Advisory Committee:

Dr.Kowsalya.M

Professor and Dean,

School of Electrical Engineering,
Vellore Institute of Technology, Vellore, India.

Dr. Jasmine Pemeena Priyadarisini

Professor and Dean,

School of Electronics Engineering,
Vellore Institute of Technology, Vellore, India.

Dr.Vinoth kumar.E

Professor and HoD,

Department of Control and Automation,
School of Electrical Engineering,
Vellore Institute of Technology, Vellore, India.

Dr.Sathya.P

Associate Professor Sr. and HoD,

Department of Sensor and Biomedical Technology,
School of Electronics Engineering,
Vellore Institute of Technology, Vellore, India.

Resource Person

The resource persons are training experts and certified AI instructors from Unifirst Robotics, Bangalore. **Mr. S. Sunil Kumar, Managing Director, Unifirst Robotics** leads the team which excels in NXCAD: Cleared the Tool Test conducted by SIMENS Company. PTC Creo: Have certification in Part Drawing, Modelling and Assembly. Virtual Abroad Teaching, Virtual Abroad, Other Technical Skills: AutoCAD, Catia, HTML/CSS, Python, Programming tools like Scratch and App Inventor, Basics of Electronics, Arduino.

Eligibility:

This training program is open to Faculty, Research Scholars and UG/PG Students.

Registration:

www.events.vit.ac.in

Registration fee :300/- (including GST)

Vellore Institute of Technology, Vellore

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VIT[®]

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

A One-day National Workshop

(hands-on)

on

AI on Edge Devices for Robotic Applications

Date: 09 January 2026

Venue: TT 311

Time: 9.00 AM to 6.00 PM



Co-ordinators

Dr.A. Sharmila, Professor, SELECT
Dr. J. Kathirvelan, Professor, SENSE

Organized by

School of Electrical Engineering (SELECT)
&
School of Electronics Engineering (SENSE)