About the Event

*The Value-Added Program on **Smart Embedded Systems and Sensors (VAC1846)** provides practical training in embedded system design and sensor interfacing. The program introduces fundamental concepts of embedded systems, including digital and analog input/output operations, pulse-width modulation (PWM), and serial communication. Participants will also learn important communication protocols such as I2C and SPI, along with concepts of interrupts, timers, and sensor interfacing used in real-world embedded applications. The course further introduces Internet of Things (IoT) concepts, demonstrating how embedded systems interact with sensors to collect and process real-time data. The program concludes with a capstone project, enabling participants to apply their knowledge in developing smart embedded solutions for modern engineering applications.*

Lectures Scheduled

- *Introduction to Embedded Systems*
- *Digital Input and Output (I/O)*
- *Analog Signals and Pulse Width Modulation (PWM)*
- *Communication Protocols*
- *Motor controls Application*
- *Interrupts and Timers in Embedded Systems*
- *Interfacing Sensors with Embedded Systems*
- *Internet of Things (IoT) Concepts and Applications*
- *Hands on Project Development*

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

A Value Added Program
on
VAC1846

Smart Embedded Systems and Sensors

Total Program Duration: 30 Hours

Schedule: 1st April 2026 Onwards

Organised by
TIFAC-CORE Research Center
Vellore Institute of Technology,
Vellore, India.

Registration fee: Rs. 200/- (Including GST)

Registration Link: https://events.vit.ac.in/

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Advisory Committee:

Dr. RAJASEKAR N
Professor Higher Academic Grade, Director
TIFAC-CORE
Vellore Institute of Technology, Vellore, India.

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