Embedded System

Duration - 3 Days / 24 Hours

Program Description

This program offers an in-depth understanding of embedded systems, focusing on the architecture, key components, and integration of hardware and software.
Participants will explore sensors, transducers, actuators, microcontrollers, and communication protocols, with emphasis on battery management and sensor fusion.
Through practical exercises, participants will develop the skills needed to design and manage efficient embedded systems

Learning Goals

- Understand the architecture and components of embedded systems.
- Explore the operation and applications of sensors, transducers, and actuators.
- Gain practical knowledge of microcontrollers and their role in embedded systems.
- Learn effective battery management strategies for embedded applications.
- Develop skills in interfacing hardware with software for seamless system integration.
- Apply data acquisition (DA) sensors and fusion techniques to enhance system performance.
- Understand communication protocols used in embedded systems for data transmission

Course Topics

- Architecture of Embedded Systems
- Sensors and Transducers
- DC Actuators and Drives
- Microcontrollers
- Battery Management
- Interfacing HW & SW
- DA Sensors & Fusion
- Communication Protocols