

DATE: 23 JUNE 2025

DAY: MONDAY

DAY 1 – IoT & Embedded Systems Basics

LEARNING OBJECTIVES:-

- Understand the concept of IoT and core components of IoT systems.
- Learn the basics of embedded systems and their role in real-time control.

Overview:-

Day 1 introduced the foundational concepts of IoT, embedded devices, and their communication structure. It focused on explaining how sensors, microcontrollers, networking modules, and cloud servers work together to form complete IoT ecosystems. The day also outlined common vulnerabilities and the importance of securing IoT architectures.

Activites:-

- Studied IoT architecture (sensor → MCU → gateway → cloud).
- Learned basic security challenges such as default passwords and insecure firmware.

Insights:-

- Understood the layered nature of IoT communication.
- Realized the importance of securing even small embedded devices.