

**DATE: 27 JUNE 2025**

**DAY: FRIDAY**

## **DAY 6 – Connecting ESP32 to Wi-Fi (Station Mode)**

### **LEARNING OBJECTIVES:-**

- Connect ESP32 to a router using Wi-Fi STA mode.
- Understand DHCP-based IP assignment.

### **Overview:-**

Day 6 introduced Wi-Fi station mode where ESP32 joins an existing network. This enabled the device to communicate with cloud platforms and made real-time IoT data transfer possible.

### **Activities:-**

- Programmed WiFi.begin() and tested connection.
- Verified assigned IP using serial monitor.

### **Insights:-**

- Understood signal strength effects on stability.
- Learned troubleshooting for Wi-Fi connection failures.