

**: SYLABUS :**  
**Microprocessors- Micro controllers**

**Unit 1 : Microprocessors**

Architecture of 8085 and 8086 microprocessor, instruction sets, assembly language programming , interfacing with memory and I/O devices, and interrupt systems.

**Unit 2 : Micro controllers**

Architecture of 8051 micro controller, SFRs, instruction sets, assembly language/embedded “C” programming timers and counters, serial communication in 8051.

**Unit 3 : Interfacing of peripherals with 8051 microcontroller**

ADC,DAC,converter ,external memory, LCD, keyboard, DC and stepper motor and real-time application design.

**Unit 4 : Peripheral Interface**

Architecture of PPI 8255 abd its interfacing with microprocessors 8085/8086 and microcontrollers. Real-time application design.

**Unit 5 : Controllers and minicomputer for IoT**

ESP32 and ESP8266: Development boards, Timer, interrupts, Wi-Fi setup connections, PWM. Raspberry pi : Development board, processor, GPIOs, block diagram connection patterns, OS , command line configuration Application design.