

# **MICROPROCESSORS & MICROCONTROLLERS LABORATORY**

Microprocessors & Microcontrollers Laboratory offers B.Tech students to learn and provide hands-on experience essential to the real understanding of microprocessors architecture and its interfacing to the peripheral devices. This laboratory is equipped with the basic 8086 Microprocessor & 8051 Microcontroller trainer kits and also modern Microcontrollers which enable to learn and implement the theoretical concepts pertaining to the Reduced Instruction Set Computing (RISC) and Complex Instruction Set Computing (CISC) architectures. Students are exposed to the latest MSP430 Microcontroller besides the traditional 8-bit Intel 8051 microcontroller architecture. This laboratory is extensively used for conducting lab sessions and to carry out Project Based Learning and Research Based Learning activities by the students.

## **Hardware Facilities:**

- 8086 Microprocessor Trainer Kit
- 8051 Microcontroller Trainer Kit
- MSP430 Microcontroller Launch pad Kit
- CC3100 Wireless Booster Pack
- 8279- Keyboard/Display Interface
- 8259-Interrupt Controller
- Stepper Motor Interface
- Traffic Light interface
- 4x4 Matrix Hex Keypad Interface
- 5-Digit 7-Segment LED Display Interface
- Dual DAC Interface
- Personal Computers - 15 No's

## **Software Tools:**

- Microsoft Macro Assembler
- CC Studio V6

