MICROPROCESSOR/MICROCOMPUTER SYSTEM

CTC 221   Microprocessor/Microcomputer System   4.0 UNITS

Presents the architecture and operation of the microcomputer. Topics include an introduction to the 8086 microprocessor including its architecture, operation, and instruction set. The instruction set is studied through programming examples. Interfacing to the 8086 microprocessor is thoroughly studied. Input/output port configuration and interrupt management are introduced and used in numerous design projects. The laboratory experiments consist of designing projects. Students are exposed to projects that include solving both software and hardware issues. The tools used include a PC loaded with an 8086 assembler and connected serially to a SDK-86 kit. Laboratory experiments cover an 8086 arithmetic program, accessing data in memory, using a PC to write a program with an assembler, generating digital waveforms, nested loops programming, reaction time programming, using D/A converters with microprocessors and vector graphics.