

### SKU-8086 Microprocessor

The goal of SKU-8086 Microprocessor is to provide basic information about 8086 microprocessor and peripherals. It develops the basic concept for a full understanding of microprocessor and its peripherals in a manner that is clearer, interesting, and easier to understand through innovative graphical user interface which is easy to learn and extremely efficient to use. The course is developed as a self-study package with easy-to-navigate interface, explaining difficult electronics concepts by analogies, flash animations and examples.



### Topics covered in SKU-8086 Microprocessor:

#### Architecture of a 16-bit Microprocessor

**Topics Covered:** Internal organization of 8086, Signal descriptions, Physical memory organization, BIU, EU, Minimum mode 8086 system and timings, Maximum mode 8086 system and timing, Evolution of microprocessors, Architecture of 8086( Register structure, ALU, Bus Organization, Timing and Control).

### Assembly Language Programming

**Topics Covered:** Addressing modes, Instruction set, Assembler directives and Operators, Data movement instructions, Arithmetic and logic instructions, Program control instructions, and Recursive procedures.

### Special Architectural Features and Related Programming

**Topics Covered:** Stack structure, Interrupts and Interrupt service routine, Interrupt programming, Macros, Timings and delays. Basic Peripherals and Their Interfacing: Memory interfacing, Interfacing I/O ports, Programmable Peripheral Interface (8255), Interfacing A/D and D/A converters.

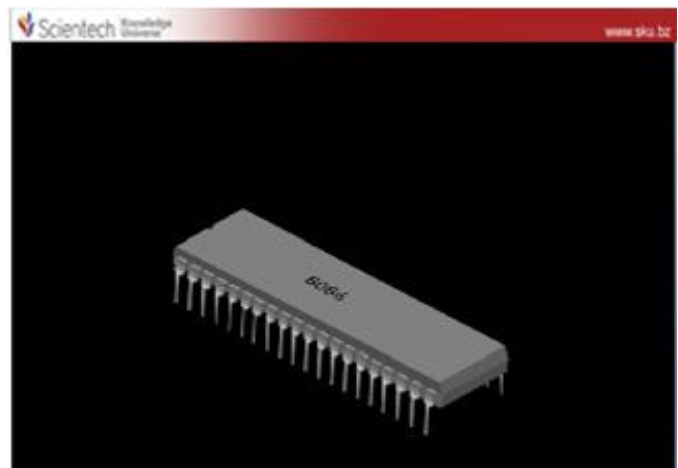
### Special Purpose Programmable Peripheral Devices and Their Interfacing

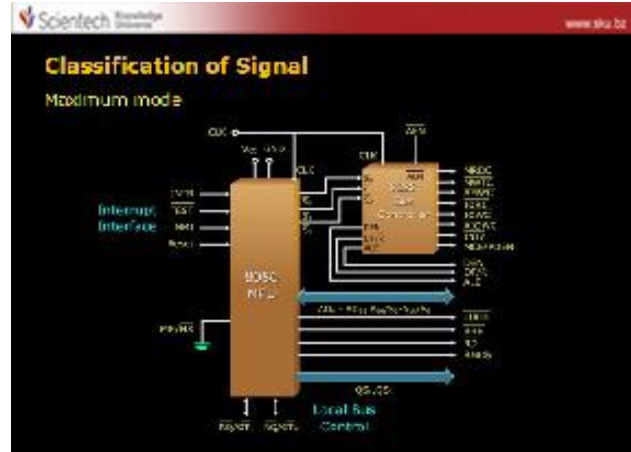
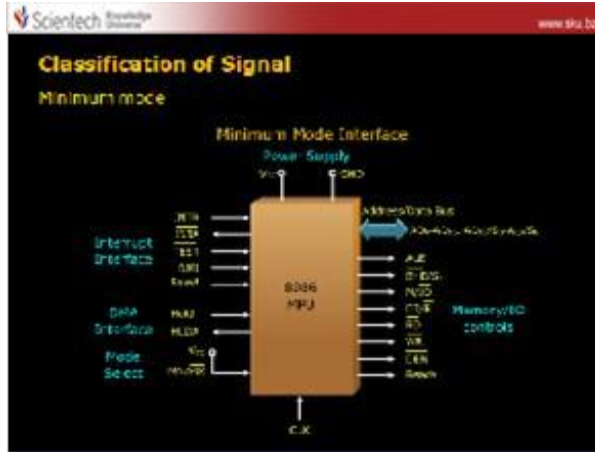
**Topics Covered:** Programmable Interval Timer (8253/8254), Programmable Interrupt Controller (8259), Keyboard/Display Controller (8279), Programmable Communication Interface (8251), DMA Controller (8237/8257).

### Microprocessor Applications

**Topics Covered:** Interfacing scanned multiplexed displays and Liquid crystal displays, Interfacing matrix keyboard, Stepper motor interfacing, Case studies of microprocessor based systems, Standards for bus architecture and ports.

### Print Shots of SKU-8086 Microprocessor:





### Signal description

Address/Status

S6	S3	Indication
0	0	Alternate Data
0	1	Stack
1	0	Low

