8086 Microprocessor Trainer uses Intel 8086 is a 16-bit microprocessor as CPU. This is one step above 8085 (8-bit) microprocessor. The term "16-bit" means that its arithmetic logic unit, internal registers, and most of its instructions are designed to work with 16-bit binary words. The 8086 has a 16-bit data bus, so it can read data from or write data to memory and ports either 16 bits or 8 bits at a time. As its address bus is 20-bit wide, it can address memory up to 1,048,576 locations. Each of the 1MB locations represents bitewide. Therefore it is necessary to study by experimentation how a 8086 microprocessor responds for various conditions. Using this trainer, students studying in electronics, electrical, instrumentation, mechanical, chemical engineering subjects, B.Sc. (electronics, computers, and physics) laboratory, and polytechnics can learn programming an 8086 Microprocessor. This can be used to some extent for designing prototypes.

SPECIFICATIONS

- **CPU** : 8086 Microprocessor @ 6.144 MHz
- **MEMORY** : Total space ON BOARD is 32KB, Comprising of 16KB monitor EPROMS and 16KB RAM. Battery backup for RAM.
- **PERIPHERALS** : 8279 for controlling 24 feather keys (including 7 digit seven segment display).
  : One 8255 for controlling 24 I/O lines and same are brought out to 50 pin FRC connector.

The following programs can be performed on the above 8086 microprocessor trainer, detail of which have been provided in the manual supplied with the trainer.

01.   Program to perform 16-bit addition
02.   Program to perform 16-bit subtraction.
03.   Program to perform 16-bit multiplication.
04.   Program to perform 16-bit division.
05.   Program to display largest no. in an array.
06.   Program to display smallest no. in an array.
07.   Program to arrange numbers in ascending order.
08.   Program to arrange numbers in descending order.
09.   Program to determine factorial of a number.
10.   Program to determine fibonacci series of a number.
11.   Program to check password.
12.   Program to perform scrolling display.

- **POWER SUPPLY :** ±12V @ 500mA. All assembled in an well designed cabinet.
- **ACCESSORIES :** 50 pin FRC Cable 1 No.

SOFTWARE CAPABILITIES

The Monitor provided in 32K EPROM is capable of assisting the user, entering, editing and running the programs in assembly language.

FEATURES

- The unit is operative on 230V, 50 Hz A.C. Mains.
- Strongly Supported by Detailed operating Instructions, giving details of Object, Theory, Design procedures, Report Suggestions and Book References.

Note: Specifications are subject to change.