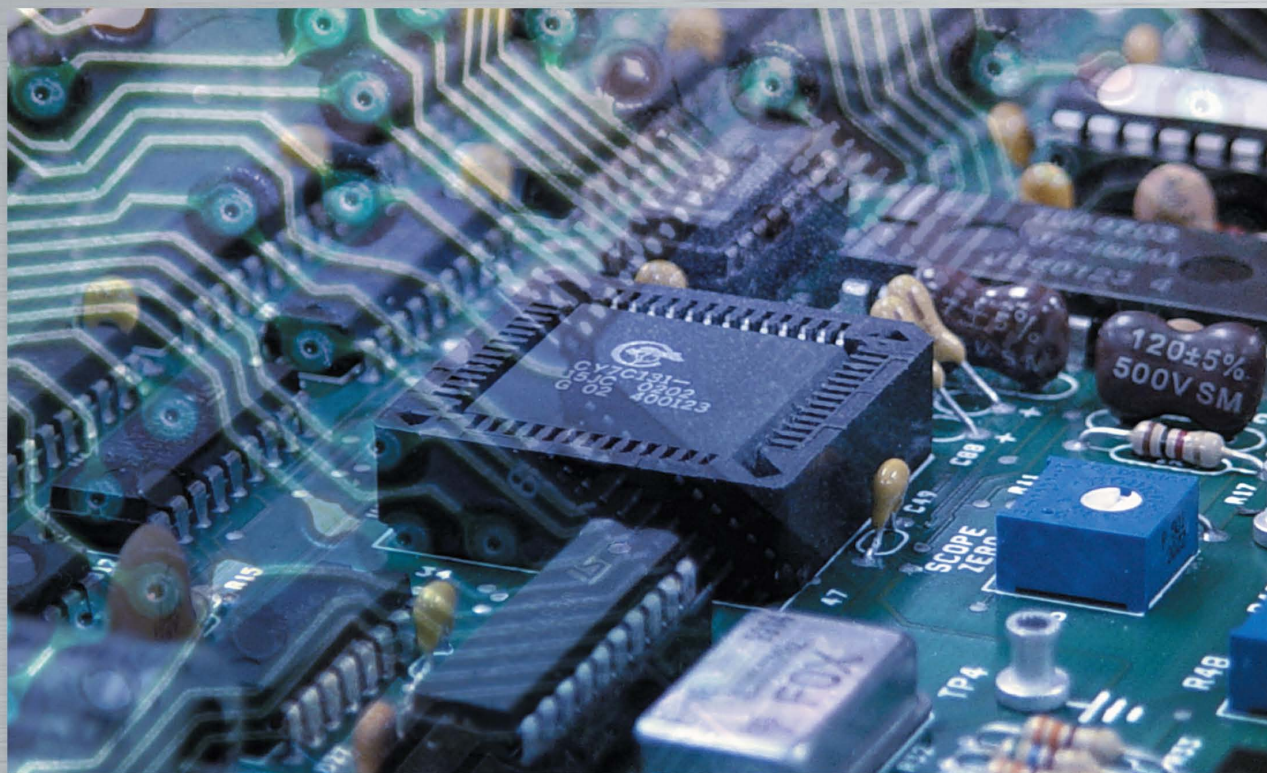


# Microprocessors



## Macro Training in a Microprocessor World

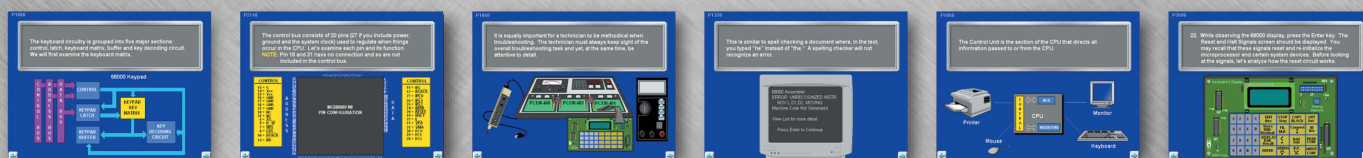
Microprocessors touch every aspect of our lives every day. Our cars, cameras, and computers represent but a few of the many applications with a microprocessor as the heartbeat of the product. Aircraft take off and land, factories run 24/7, and car safety systems are monitored and executed - all under the control of microprocessors. Technicians can no longer specialise in just one type of processor, as most large systems use several different types of microprocessors to operate efficiently.

The E & L-Nida Microprocessor courseware offers a modular learning experience that teaches the 8051, 8086, and 68000 microprocessors. The lessons can be taken as a unit or separately depending on the specific needs of your programme. Learning the basics of the most common processors guarantees the student can adapt to emerging processor technologies. The E & L-Nida Microprocessor courseware: providing the perfect foundation for all your advanced processor related programmes.



# E & L-Nida Microprocessors

The E & L-Nida Microprocessor courseware is designed in a computer based format to provide students with a comprehensive and interactive courseware that keeps them motivated throughout the learning process. The courseware provides programming, experiments, and troubleshooting scenarios that align with the E & L-Nida Model 1439 Microcontroller, 1441 Intel Microprocessor, or 1468 Motorola Microprocessor Experiment Boards Set. Whether your programme teaches one or several processors/controllers, your E & L-Nida Microprocessor courseware will be supported by the same Model 130E console you utilize for your other electronics programmes.



## Topics

### Basic Microprocessor Systems

- Introduction to Microprocessors
- Basic Microprocessor Operations
- Microprocessor Number Systems

### 68000 Microprocessor

- 68000 Microprocessor Circuits
- Registers and Memory
- Input/Output Circuits
- 68000 Microprocessor Operation
- Introduction to Programming
- Move & Branch Commands
- Arithmetic and Logic Commands
- Test and Additional Commands
- Debugging, Compatibility, & Troubleshooting

### 8051 Microcontroller

- 8051 Microcontroller Circuit
- 8051 Microcontroller Operation
- Interfacing with the 8051 Microcontroller
- Troubleshooting the 8051 Microcontroller

### 8086 Microprocessor

- 8086 Microprocessor Circuits
- 8086 Microprocessor Operation
- Interfacing with the 8086
- 8086 Data Transfer
- 8086 Addition & Subtraction
- 8086 Logic Instructions
- 8086 Jump Instructions
- Troubleshooting the 8086

## Supporting Hardware

- Model 130E Test Console
- Model 1439 8051 Microcontroller Boards Set
- Model 1441 8086 Microprocessor Boards Set
- Model Motorola 68000 Microprocessor Card Set
- Model 2100 Digital Logic Probe
- Model 4050 Test Instrument Module

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