

ELECTRONICS LAB #237

COMPUTER ENGINEERING DEPARTMENT

Short Description:



Electronics lab space offers access to electronics-related equipment that aid in the learning experience of the students. The lab contains various electronics devices used for circuit and microprocessor design, and logic analysis such as oscilloscopes, digital multimeters, function generators, and power supplies.

Equipment specifications:

- **Analog /Digital Trainer Kit**

The Global Specialties PB-505 Deluxe Analog and Digital Design Trainer is a robust electronics trainer engineered for electronics instruction and design and is ideal for analog, digital, and microprocessor circuits. Students will learn valuable hands-on breadboarding techniques and build a solid foundation in circuit experimentation, construction, and analysis. Students can create and implement their own circuits onto the breadboard, which is removable for multiple student usage in lab settings. The PB-505 can be used to construct basic series and parallel circuits or the most

complicated multi-stage microcomputer circuits, incorporating new trends in industrial technology.

Quantity of the device 14



- **Power Supply**

The primary power supply specifications are the voltage and current output parameters. In terms of the voltage, the power supply may be fixed, or it may have a variable output. It is necessary to check whether the power supply has a fixed or variable output.

Quantity of the device 14



- **Oscilloscope**

is a type of electronic test instrument that graphically displays varying signal voltages, usually as a calibrated two-dimensional plot of one or more signals as a function of time. The displayed waveform can then be analyzed for properties such as amplitude, frequency, rise time, time

interval, distortion, and others. Originally, calculation of these values required manually measuring the waveform against the scales built into the screen of the instrument.

Quantity of the device 14



- **Digital Multimeter:**

A digital multimeter is a test tool used to measure two or more electrical values—principally voltage (volts), current (amps) and resistance (ohms)

Quantity of the device 14



- **Function generator**

A function generator is usually a piece of electronic test equipment or software used to generate different types of electrical waveforms over a wide range of frequencies. Some of the most common waveforms produced by the function generator are the sine wave, square wave, triangular

wave, and sawtooth shapes. These waveforms can be either repetitive or single shot (which requires an internal or external trigger source)

Quantity of the device 14

