The Barcode Technology Trainer is a useful Training System for students to understand the basic concept and fundamentals of this technology. Barcodes are fast, easy and accurate data entry method. The correct use of barcodes can save the time and increase an organization's efficiency. Barcode is an automatic identification technology that encodes information into an array of parallel bars and spaces of varying widths. This Training System provides understanding about how barcodes are generated and applications of barcodes. The system is provided with the detailed description of each block with various test points and explanation in the manual. Conversion of Optical signal into the Electrical signal is shown very clearly so a student can understand how and where CCDs (Charge Coupled Devices) are used in opto-electrical conversion circuits. This system also explains, how data is acquired from barcode strips, how conversion of scanned analog data into digital data for PC, how decoding of incoming data is taking place etc. Its software contains the operation of barcode scanning probe, generation of barcodes and an application of barcodes.

■ Complete details of the Barcode Technology
■ Detailed explanation of each block with the given test points
■ Provided with Application software
■ Facility of Barcode Generation
■ User friendly manual
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Application software window

Technical Specifications:

Power Supply	:	+5 V DC provided from computer by PS/2 Interfacing
Current	:	100 mA (while scanning)
Scan-Rate	:	100 Scans per second (Typical)
Scanning distance	:	0 to 30 mm
Standards Supports	:	UPC/EAN, UPC/EAN with supplemental, UCC/EAN 128, Code 39, Code 39 Full ASCII, Code 39 Tri Optic, Code 128, Code 128 Full ASCII, Codabar, Interleaved 2/5
Interface supported	:	PS/2
Ambient Light Immunity	:	Immune to direct exposure of normal office and factory lighting conditions, as well as direct exposure to sunlight.

Experiments that can be performed:
■ To Understand the working of Barcode Trainer
■ To study the conversion of Light into an Electrical signal
■ To understand the scanned output of ADC Barcode signal
■ To study Digital Signal Processing Block
■ To understand the generation of Barcodes
■ To understand commercial applications of Barcodes

Application software window

Note: Specifications are subject to change.