

## KMS-01 BASIC ELECTRONICS TRAINER



**KMS-01** is Versatile trainer which is capable of performing the role of Linear/Digital IC Trainer, Basic Electronics Trainer, network circuit & theorms trainer, rectifier, filter & regulator trainer, Transistor amplifier circuits trainer, oscillator & waveshaping circuits trainer, linear circuits trainer, electrical bridges trainer, power electronics trainer and digital electronics trainer.

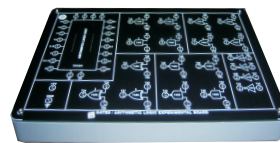
### Specifications

- 16 TTL/CMOS Logic Level Inputs with Dual Color LED for Logic Low & Logic High.
- 16 output LED's for Logic level Indicators.
- Fixed (TTL) Clock generator of 1Hz, 10Hz, 100Hz, 1KHz, 100KHz, 1MHz.
- Signal Generator Five step 200 Khz SINE, SQUARE(TTL), TRIANGLE output, Sine/Triangle Output Voltage - 20V p-p max.
- Dual Pulser Generator with four debounced Output Logic Probe to detect High/Low level pulses, with bi-colour LEDs to indicate Facility.
- Two digit 7 segment display with HEX to 7 segment decoder.
- Two digit 7 segment display with all segment inputs
- LED BAR graph with 10 LED indicators to display 0-5 V input.
- On board DPM (4 no) provided with mode selection: DC volt/ current.
- On-board 1K & 1M Variable Potentiometer.
- On-board Buzzer for alarm application.
- On-board +12V SPDT Relay for Control application.

- On-board 1280 TIE points Bread Board.
- Fixed DC Power Supply: +5V/2A,  $\pm 12V/250mA$ .
- Variable DC Power supply of 0 to +15V, 0 to -15V & 0 to +30V output.
- C Power Supply of 15V-0-15V.
- All Inputs/Outputs are brought on 2mm Sockets
- Set of 2mm Banana PatchCords.
- Should support KMS series ready to use Electronics board.
- Bare board Tested Glass Epoxy SMOBC PCB is used.
- User's Manual.

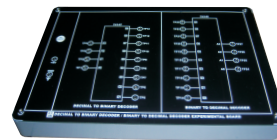
### Digital experimental boards:

#### 1. DN-01 GATES/ARITHMATIC LOGIC BOARD



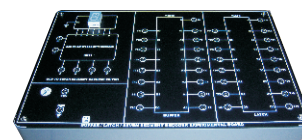
- Experiments on AND, OR, NOR, NAND gats.
- Experiments on NOT, Ex-OR, EX-NOR.
- Experiments on ALU

#### 2. DN-02 DEICIMAL TO BINARY & BINARY TO DECIMAL BOARD.



- Experiments on Binary to Decimal convertor.
- Experiments on Decimal to Binary convertor.

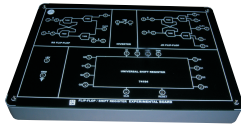
#### 3. DN-03 BUFFER/LATCH/ SEVEN SEGMENT DECODER BOARD



- Experiments on Buffer output.
- Experiments on Latch output.
- Experiments on Seven Segment Decoder.

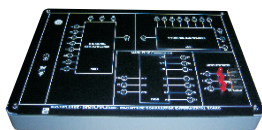
*Note : Specifications can be altered without notice in our constant efforts for improvement.*

4. DN-04 FLIP FLOP/ SHIFT REGISTER BOARD  
- Experiments on RS, T, & D Flip Flop.



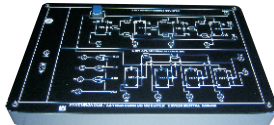
- Experiments on JK Flip Flop & Master Slave JK Flip Flop.
- Experiments on Universal Shift Register.

5. DN-05 MULTIPLEXER/DEMUX/ MAGNITUDE COMPARATOR BOARD.



- Experiments on 8 channel Multiplexer.
- Experiments on 8 channel Demultiplexer.
- Experiments on 4 bit Magnitude Comparator.

6. DN-06 SYNCHRONOUS/ ASYNCHRO-NOYS COUNTER BOARD.



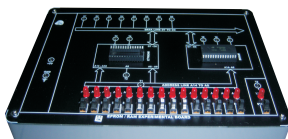
- Experiments on 4 bit Asynchronous Counter.
- Experiments on 4 bit Synchronous Counter.

7. DN-06 8 BIT ADC & DAC BOARD.



- Experiments on 8 bit Analog to Digital Converter.
- Experiments on 8 bit Digital to Analog Converter.

8. DN-08 EPROM/RAM EXPERIMENTAL BOARD



- Experiments on Program & Write operation of 64k Eprom.
- Experiments on Read & Write operation of 32K RAM.

9. DN-09 CPLD XC9572 BOARD.

- Experiments on Full Adder, Adder/ Subtractor.
- Experiments on Seven Segment Decoder.
- Experiments on Binary to Grey Conversion.
- Experiments on Comparator, Decoder, Demultiplexer.
- Experiments on Encoder, Multiplexer, Parity Generator.
- Experiments on T, D JK Flip Flop

### **Analog experimental boards:**

1. AN-01 BASIC ELECTRICITY EXPERIMENTAL BOARD.

- Experiments on Theorems, Ohms Law, KCL, KVL.
- Experiments on charging & Discharging of capacitors.
- Experiments on Half/Full wave Rectifiers, Filters.

2. AN-02 OPERATIONAL AMPLIFIER BOARD.

- Experiments on Inverting/Non Inverting amplifiers.
- Experiments on Summer /Differentiation / integrator amplifiers.
- Experiments on Precision/Half/Full Rectifiers.
- Experiments on current to voltage & Viz amplifiers.
- Experiments on Opam Characteristics.
- Experiments on Schmitt Trigger /Comparator/ Sine Changer.
- Experiments on Clipping & Clamping circuit.
- Experiments on Sine/Square/Triangular Waveform generator.

3. AN-03 SEMICONDUCTOR EXPERIMENTAL BOARD.

- Experiments on Characteristics of Silicon Diode.
- Experiments on Characteristics of NPN/PNP Transistors.
- Experiments on Characteristics of DIAC, UJT, MOSFET.
- Experiments on Characteristics of FET, SCR, Traic.

4. AN-04 OPTO ELECTRONICS EXPERIMENTAL BOARD.

- Experiments on Characteristics of Photo Diode/Transistor.
- Experiments on Characteristics of LDR
- Experiments on Characteristics of LED
- Experiments on Characteristics of OPTO

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