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| <b>Product Name :</b><br>Operational Amplifier Designer  | <b>Product Code :</b><br>NLAB-ELECTRONICSAB420024 |
| <b>Description :</b><br>Operational Amplifier Designer   |   |
| <b>Technical Specification :</b><br>AMP DESIGNER has been designed specifically for the study of OP-AMP IC and its applications. This training board covers nearly all possible applications of operational amplifiers IC and makes the student familiar with the fundamentals of OP-AMPS, their characteristics and applications in various fields. 100 experiments can be performed by this OP-AMP designer.<br><br>Practical experience on this board carries great educative value for Science and Engineering Students.<br><br>LIST OF EXPERIMENTS<br>Following experiments can be performed :<br>01. BASIC OPERATIONAL AMPLIFIER CIRCUIT<br>01. Inverting Amplifier<br>02. Non-inverting Amplifier<br>03. Inverting A.C. Amplifier<br>04. Non-inverting A.C. Amplifier<br>05. High input impedance inverting Amplifier<br>06. High input impedance non-inverting amplifier |   |

## 02. SOURCE FOLLOWERS

01. Voltage Follower (Unit gain buffer amplifier)

02. A.C. Voltage follower

## 03. OP- AMPS AS ANALOGUE COMPUTER ELEMENTS

01. Inverting summing amplifier

02. Non-inverting summing amplifier

03. Subtractor

04. Differential amplifier

05. A.C. differential amplifier

06. Adder subtractor

07. Multiplication by a constant

08. Division by a constant

09. Integrating amplifier for DC input signals

10. Integrating amplifier for AC input signals

11. Differentiator amplifier

12. Non-inverting differentiator

## 04. FUNCTION GENERATOR

01. Sine Wave generator using wien bridge network

02. Square Wave generator

03. Pulse generator

04. Square and Triangular wave generator

05. Saw tooth generator

06. Synchronised sawtooth generator with negative going pulse trigger

07. Synchronised sawtooth generator with positive going pulse trigger

## FEATURES

The board consists of the following built-in parts:

01. IC Regulated D.C. Power Supply.
02. Continuously variable D.C. Power Supply.
03. Two OP-Amp IC.
04. Transistor, 5 diodes, 2 zener diodes, 28 resistors, 8 capacitors, one LED, one lamp.
05. Mains ON/OFF switch, fuse and Neon Indicator are provided.

#### GENERAL FEATURES

The unit is operative on 230V, 50Hz A.C.

Adequate no. of patch cords stackable from rear both ends 4mm spring loaded plug length ½ metre.

#### OTHER APPARATUS REQUIRED

Sine Square Wave Oscillator

Digital Multimeter 3¾ digit

A.C. Millivoltmeter

Cathode Ray Oscilloscope 20MHz

## Naugralabequipments

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