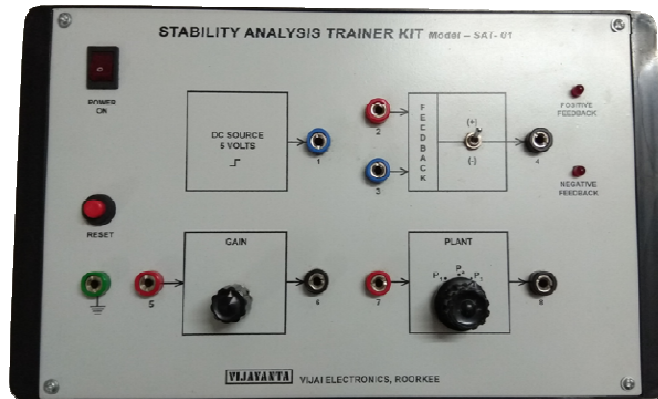


## STABILITY ANALYSIS TRAINER KIT

MODEL : SAT - 01



### Description of instrument

The stability analysis trainer kit is designed to study the open-loop, closed-loop response of an electrical system. Through this trainer, the stability of system can be studied under positive and negative feedback mode. Furthermore, the stability criterion can also be investigated by introducing gain in the closed-loop system. The kit contains three different kinds of plants to work on.

### Signal Source

There are a 5 Volt DC built in source in this unit.

### Features

- This unit is inside a metallic cabinet with front panel block diagram.
- All necessary switches, test points are on the front panel.
- All waveforms can be measured on a CRO.
- Built in DC signal source of 5 Volts.
- Indicator which show the mode of the system under positive and negative feedback.
- Knob of variation of gain and switch to select different plant.
- Built in regulated power supply: 230 Volt,  $\pm 10\%$ , 50Hz mains operated.
- Reset switch to quick deactivate the system response.
- Detailed literature and patch cords.
- Weight : 2 Kg. Approximately
- Dimension : 195mm x 315mm x 75mm

### Object

Through this kit, following objectives can be achieved:

1. Study of open- and closed-loop response to step signal and calculation of steady state error for step input.
2. For step input, stability analysis on varying gain in closed-loop mode under  
(a) positive feedback mode  
(b) negative feedback mode
3. Determine the gain at which the control system become marginally stable for different plants for step input.

### Accessories required (Optional)

A general purpose dual trace oscilloscope

*Note: There may be any change in specification due to continuous R & D without notice.*

## **VJAYANTA TECHNOLOGIES PVT. LTD.**

(Formerly Vijai Electronics)

Dr. Baldev Singh Marg 28/147 Civil Lines, Roorkee-247667 Distt. Haridwar, Uttarakhand

Phone No.: 01332 - 272509, 7579200827

E-Mail : vijayantatechologies@gmail.com, vijaielectronics1965@gmail.com