



# **Second Order Active System Trainer**

Model: SAS = 01

<u>Description</u> The second-order active system trainer is designed to study the transient and steady state response of a second-order system. Through this trainer, underdamped, critically damped and overdamped behavior of the system can be studied.

### **Signal Source**

There are two built in sources in this unit.

DC: 5 volt

Square wave: 5 Volt peak to peak, 0.5-25 Hz frequency



#### **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 signal source, dc and square wave upto 25 Hz and voltage of 5 Volts.
- ➤ Indicator which show the mode of the system (underdamped, critically damped and overdamped)
- $\triangleright$  Buit in regulated power supply: 230 Volt,  $\pm 10\%$ , 50Hz mains operated.
- > Detailed literature and patch cords

### **Object**

Through this kit following objectives can be achieved:

- 1. Study the transient and steady-state response of underdamped, critically damped and overdamped second-order system step and square wave inputs.
- **2.** Determine the transient and steady-state response specifications of underdamped, (ii) critically damped and (iii) overdamped second-order system.
- **3.** Determine the transfer function models of underdamped second-order system through step response.

## Accessories required

A general purpose dual trace oscilloscope

Due to continuous development in diagram and specification, there may be any change without any notice.