# ESOLS Engineering Education Equipment

### **CONTROL AND AUTOMATION TECHNOLOGY**



## **AC SERVO CONTROL TRAINER (SMT-511)**

Servo motors plays a very important role in industry process. These servo motor can be AC or depending on the requirement. SMT-511 contains a high speed, high functionality AC servo driver and motor. This driver can realize velocity, Position and Torque response of the drive. Standard line-up includes full-closed control and auto-gain tuning function and the motors with 2500P/r incremental encoder. This Trainer has Touch LCD Display and Control for monitoring and Control of the servo motor features.

#### **TECHNICAL SPECIFICATIONS**

- Touch LCD Display and Control.
- Setting Parameters using LCD.
- Experiments Control using LCD.
- AC Motor: Panasonic A4 Servo motor. 90V, 200W with 2500PPR encoder.
- **Motor Driver:** Panasonic A4 Servo driver.
- Power Supply:
  - DC Power Supply
  - Variable Power Supply
- Control Inputs:
  - Function Generator
  - Connector for PLC interface
- Position Response: 1KHz
- Vibration Reduction
- Damping Control
- **Control Modes:** Position, Velocity & Torque
- Dynamic Brake: Built In
- Closed Loop Control: Position & Velocity
- Torque Limit: 2 possible values
- Protection: Current, Voltage, Temperature and Over Power
- Command Input: Pulse, control signal ±10V





## **CONTROL AND AUTOMATION TECHNOLOGY**

## **Experiments Included**

- Configuring the AC Servo
- External Direction Control
- Internal Speed Control (Digital)
- External Speed Control (Analogue)
- Position Control (Digital)
- Torque Control