

## **CONTROL LAB**

### **Objective of the Laboratory:**

- To teach students the concepts of block diagrams and transfer functions.
- To teach students the characteristics of closed-loop control systems, including steady-state and transient response, parametric sensitivity, disturbances, error, and stability.
- To teach students basic performance criteria for first and second order systems.
- To teach students basic control system design methods, including root locus diagrams and frequency response methods.
- Introduce students to the basic concepts of proportional, integral, and derivative (PID) control.
- Introduce the students to existing software tools (Matlab & Simulink) used for control system design.

### **Major Equipment in Lab:**

- 6 PC's with MATLAB r2009b
- Beltronix Stepper Motor and Translator
- Modular Servo System MS-150 Mk-II
- Dual DC Power Supply (Model LV-30B)
- Synchrno Transmitter
- Two Phase Servo Motor operated from 30 V (AC), 400 Cycles/Sec.
- Autodesk Electrical with AutoCAD - 2006

### **Name of officials handling the Laboratory:**

- Surjeet Singh(Rtd-2016)
- Hardev Rana(Rtd-2017)
- Mukesh Kumar
- Pritam Singh(Rtd-2017)