Name of the Lab: Control and Instrumentation Laboratory (EEE)

EE8511(ODD Semester) **Regulation 2017**

LIST OF EXPERIMENTS (Recommended as per Anna University)

Control systems:

1. P, PI and PID controllers
2. Stability Analysis
3. Modeling of Systems – Machines, Sensors and Transducers
4. Design of Lag, Lead and Lag-Lead Compensators
5. Position Control Systems
6. Synchro-Transmitter- Receiver and Characteristics Simulation of Control Systems by Mathematical development tools

Instrumentation:

7. Bridge Networks –AC and DC Bridges
8. Dynamics of Sensors/Transducers
9. Dynamics of Sensors/Transducers

   (a)Temperature (b) pressure (c) Displacement (d) Optical (e) Strain(f)Flow
10. Power and Energy Measurement
11. Signal Conditioning
    (a) Instrumentation Amplifier
    (b) Analog – Digital and Digital –Analog converters (ADC and DACs)
12. Process Simulation

TOTAL: 60 PERIODS

CONTENT BEYOND THE SYLLABUS

1. Study of AC synchronous Transmitter & Receiver.
2. Pressure Transducer
3. Study the Effect Of P, PI, PID Controllers Using Mat Lab
4. DC Position Control System