EL-305 Instrumentation & Control

Credit Hour
Theory = 3
Practical = 1

Course Content

Introduction, instrumentation and control system terminologies. Open loop and closed loop system. Mathematical models of physical systems, transfer function, interaction and non-interactive system, development block diagrams tachometers, signal conditioning activator; Transient response of first and second order system, steady state analysis, Transportation lag, dynamic response of a gas absorber and heat exchange. Controller design, P control, I control, PID control, stability criteria, root locus method, frequency response of control system, D control (bode diagram, Nyquist diagram). Introduction to non-linear system. Simulation of control system