Content Syllabus for 3rd Year at PESIT

How to Control Electromechanical Systems

V Semester

Overall Learning Objectives
The students will get a hands on experience of designing and implementing controllers for various applications including mobile robotics, motors, automobile suspension system etc.

Students will learn the necessary control theory to be able to execute the following projects:

Differential Drive Robot: Students will carry out modeling of a differential drive robot, then proceed to write the control logic for basic behaviors like go-to-goal and obstacle recognition.

Rendezvous Problem: Students will simulate the rendezvous problem by applying appropriate controllers.

Hybrid Automaton: Various behaviors of robots are implemented through a hybrid automaton design.

Automobile Suspension System: Application of controller design for automobile suspension system by simulation in python.