

Control System Homework 5

In this homework, you need to design a PID controller for an inverted pendulum considered in homework 4. Simulate the output response using 2 different ways:

1. Simulations by script (use the function `ode45`)
2. Simulations by Simulink

Find a proper K_p , K_i , K_d for your controller.

For this homework, you should additionally submit a report including your analysis. Give the reason if you can't reach the expected control goal.