Robot Programming

Modelling and Control - Inverted Pendulum

Bibin Kunjumon ISU:372815

Tools

- Gazebo

- ROS 1 (Neotic)

- Python

Introduction

- A pendulum mounted on a Cart.

- The system is an underactuated system, that is the number of degrees of freedom is less than the number of actuators (the pole can't be controlled directly).

- We use LQR control to control the robot