

## TRAJECTORY TRACKING OF A QUADROTOR USING PID AND BACKSTEPPING CONTROLLER

Chaithra C, Anu Gopinath

Department of Electrical and Electronics Engineering  
Mar Baselios College of Engineering and Technology  
Thiruvananthapuram, Kerala, India

In this paper, a normal PID controller and a backstepping controller is designed for the tracking of the quadrotor along a robust maneuver. The maneuver is generated such that the quadrotor should move with a constant velocity along a straight line until it comes in contact with a surface. The quadrotor is modeled in 2D dynamics for the sake of simplicity. This paper helps to validate the robustness of the proposed controllers. Simulation results proves the quality of the designs. The simulations are performed in MATLAB/SIMULINK.

