Reducing the Effect of the Atmospheric Disturbance on Longitudinal Flight Control System Usage PID Controller

Abstract

Autopilot systems have been vital to flight control for several years and have been making flight easier and more effective. Nevertheless, these autopilot systems are complex devices that demand exact control and stability. In this paper, design PID controller to control pitch angle in longitudinal dynamic of the autopilot system for jet transport using MATLAB/SIMULINK. In this paper designed on automatic pilot with Multi Input Multi Output (MIMO) system. Also, we studied the effect of atmospheric disturbances when a PID controller has been applied the results shown how this controller with good tuning reducing the effect of atmospheric disturbance on the consistency of the autopilot.

References

Index Terms

Computer Science  Signal Processing

Keywords

Longitudinal Autopilot, Pitch angle, Atmospheric Disturbance, Flight Control, PID