

ABSTRACT

Final Project is based on the controller and the software used to interface DC motors. By developing control Linear Quadratic Gaussian), program using LabView 2013, as well as interface DC motors and LabView using NI USB-6008 DAQ. The control system that has been applied to the program will be connected to a DC motor. DAQ output voltage is amplified by operational amplifier circuits. then use mathematical equations to utilize the feedback in controlling the speed of a DC motor. This software is very useful to test the ability of a DC motor with a display that is easy to understand and is equipped with a data storage feature that allows users to analyze the test results.

Keywords: LQG, LabView 2013, DC motor, NI USB-6008 DAQ, operational amplifier circuits, Identification, Realtime.