

ABSTRACT

This final project has been successful in realizing a modular servo system that can be used as a lab kit. Lab Kit is used to controlling the position of controlled using a DC motor and coupled to a DC generator. At the time of position control, I need to know the plant to be controlled. In this case, a plant that control is motor and wheel sensor as position detection. The desired design is a change in position of the motor can be timely or error steady state is zero. Furthermore, I want the motor can be controlled under the influence from outside with the steady state error close to zero. This requires additional the proper controller, so it can produce the desired system such as PID which has characteristic eliminates error steady state, accelerating the rise time, increase turnaround time, and minimize overshoot In the lab, there is also a LabVIEW as computer software for processing and visualization of data in the field of data acquisition instrumentation control.

Keywords: PID, LabVIEW, modular servo system, Basic Control System, Position Control