Modelling and Control of Electrohydraulic System Using Fuzzy Logic Algorithm

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Abstract : This research paper studies electrohydraulic system for its role in position and motion control system and develops as mathematical model describing the behaviour of the system. The research further proposes Fuzzy logic and conventional PID controllers in order to achieve both accurate positioning of the payload and overall improvement of the system performance. The simulation result shows Fuzzy logic controller has a superior tracking performance and high disturbance rejection efficiency for its shorter settling time, less overshoot, smaller values of integral of absolute and deviation errors over the conventional PID controller at all the testing conditions.

Keywords : electrohydraulic, fuzzy logic, modelling, NZ-PID

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