STUDY OF TRANSIENT RESPONSE OF DC MOTOR USING MATLAB/SIMULINK

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ABSTRACT

This thesis discussed the 'Study of State Response of DC Motor using MATLAB/ SIMULINK'. It consists of the open loop system and close loop system. The speed control method of the DC Motor is investigated through open loop system by changing the namely field resistance, armature voltage and armature resistance. The close loop system or feedback system is investigated by using the PI controller and Fuzzy controller.

There are two controllers that used to reduce the steady state error between the measured speed motor and the reference speed. The PI controller firstly implemented to investigate the performance of the operating condition. After that the Fuzzy has been used to replace the PI controller to compare the differences of the operating conditions.

Finally the MATLAB/ SIMULINK models were developed to examine the DC Motor. It is developed by using the model of separately excited DC motor. Finally, results are comparing to get the expected results as theoretically.

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