Abstract

Drive system at a low speed electric cars have a hard speed setting is set on a wide range, causing an inconvenience for motorists and a fast response is required any change of speed. It is necessary for good system performance in control motor speed and torque at low speeds which is operated by Field Oriented Control (FOC). In this method of Proportional Integral Derivative used settings Fuzzy Logic Controller (PID-FLC) to dynamically respond to changes in speed and torque in an electric car, so we get smoothness at any speed change and braking as well as maximum torque motor. Neural Network (NN) with Levenberg Marquardt training (LevMar), to set the parameters and the optimal PID gain to drive a three phase induction motor. Test results showed that a fast response to changes in speed electric car.

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**Index Terms**

Computer Science Control Systems

**Keywords**

Foc Pid-flc Neural Network Levmar Induction Motor Electric Car