

Identification of the Parameters of a AC Servomotor Using Genetic Algorithm

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Abstract : This work deals with parameter identification of permanent magnet motors, a class of ac motor which is particularly important in industrial automation due to characteristics like applications high performance, are very attractive for applications with limited space and reducing the need to eliminate because they have reduced size and volume and can operate in a wide speed range, without independent ventilation. By using experimental data and genetic algorithm we have been able to extract values for both the motor inductance and the electromechanical coupling constant, which are then compared to measured and/or expected values.

Keywords : modeling, AC servomotor, permanent magnet synchronous motor-PMSM, genetic algorithm, vector control, robotic manipulator, control

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