Abstract

Two schemes control for induction machine are proposed and compared. A new off-line recursive algorithm is used to estimate the parameters of a commercial 1 kW induction motor, which is described by a multivariable state space mathematical model. The self-tuning control scheme and the control scheme with disturbance compensation are proposed. Those techniques are based on the concept of quadratic optimal control. The schemes control performance is tested using stator current, voltage and speed measurements. The obtained results demonstrate the proposed schemes' effectiveness.

References

Parameter Estimation and Control of Induction Machine using a new Recursive Algorithm


Index Terms

Computer Science

Algorithms
Keywords
Induction machine  Recursive algorithm  Off-line parameter estimation  Control schemes