

MRAC Based Speed Regulation Of An Excitation Controlled Quickresponse Induction Motor

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Summary

Speed regulation of a voltage decoupled induction motor which provides optimal efficiency and quick response is discussed. A robust first-order model reference adaptive control (MRAC)-based speed controller whose stability has been proved via Lyapunov's second method is proposed. Computer simulation results for a 100-hp squirrel-cage motor show that the proposed MRAC controller has remarkably good tracking and regulation characteristics

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