

A Simplified Design active real-time Space Vector Modulation related to a high-level Speed and Torque Control of Induction Motor

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ABSTRACT

This paper proposes a simplified area Vector Modulation technique that is employed to manage associate degree electrical converter that provides voltage to associate degree induction motor. A simplified dynamic model of associate degree induction motor model was additionally designed and voltage is equipped to that mistreatment SVM technique. A step by step style procedure with the assistance of matlab and Simulink created the complexness of the system less complicated than existing models. Induction motors square measure wont to generate the torsion needed in several industries and motion management applications. The squirrel-cage induction motor has been wide utilized in such applications because of its huskiness, low maintenance price and high power rating [1]. However, the induction motor chiefly works on the premise of magnetism induction, and this reliance makes the planning of speed and torsion controller additional complicated than for dc motors [2]. Therefore, the induction machine should be sculpturesque. during this study, a simplified Matlab/Simulink-based style of SVM and dynamic modeling of Induction motor was simulated. to review on-line beginning and therefore the result of load torsion variation, the designed SVM technique uses PWM signals to synthesize voltage provide to the dynamic model of Induction motor.

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