

## Abstract Details

**Title:** Direct Torque Control of Induction Motor using Space Vector Modulation

**Authors:** Mohit and Dharam Niwas Yadav

**Abstract:** A novel technique of controlling induction motor, called direct torque control, which controls both torque and flux directly and independently, is the topic of this work. In this work a control scheme for speed regulation based on the stator flux control in the stator reference frame using direct control of inverter switching has been adapted. The speed of induction motor is controlled by varying the stator flux through a PI flux controller. The validation of the MATLAB code is carried out using a typical induction motor drive details available from reference [1]. In the present investigations, the desired speed is set at 0.9 per unit. The initial value of the stator flux is set at 0.8 per unit. By varying the proportional gain, integral gain and integral time constant attempt is made to obtain the best response for speed, stator flux, torque, and d-q axis stator flux of the motor.

**Keywords:** Induction Motor, Vector Control, DTC.