

## Control of Doubly Star Induction Motor Using Direct Torque DTC Based To on RST Regulator

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**Abstract :** This paper presents the analysis and simulation of the control of double star induction motor, using direct torque control (DTC) based on RST regulator. The DTC is an excellent solution for general- purpose induction drives in very wide range the short sampling time required by the TC schemes makes them suited to a very fast torque and flux controlled drives as well the simplicity of the control algorithm. DTC is inherently a motion sensorless control method. The RST regulator can improve the double star induction motor performance in terms of overshoot, rapidity, cancellation of disturbance, and capacity to maintain a high level of performance. Simulation results indicate that the proposed regulator has better performance responses. The implementation of the DTC applied to a double star induction motor based on RST regulator is validated with simulated results.

**Keywords :** Direct Torque Control (DTC), Double Star Induction Motor (DSIM), RST Regulator

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