

## **Rotor-resistance estimation for induction machines with indirect field orientation**

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### **Abstract-**

**This paper presents a detailed study of a method of rotor-resistance estimation for indirect-field-oriented control of induction machines based on the reactive-power reference model. It will show how the estimation procedure can be carried out independently of the stator frequency and the load torque. The stability of the estimation procedure will also be demonstrated. Simulation and experimental results will be presented to validate the main contributions of this work. Finally, the sensitivity of the algorithm to errors in other machine parameters will be investigated.**

**Index Terms-** Field-oriented control; Induction machines; Model reference adaptive control

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