

# **Abstract**

**Mohamed I Abu El-Sebah**

## **Proposed Fault Diagnostics of a Broken Rotor Bar Induction Motor Fed From PWM Inverter**

This paper presents a fault diagnostics technique for a three-phase squirrel cage induction motor. The method is developed using a simplified model affected by bar resistance variation. Based on 3-phase time domain model, the rotor broken bar with different conditions has been simulated to investigate the resulting torque speed characteristic in each condition. The developed fault diagnostics system is capable of identifying the type of the broken- bar faults in the squirrel cage induction machines.