Abstract

Electric motors have revolutionized the way of human living and resulted in the modern life style. In every product that one consumes or uses today or in any service field that one benefits, it is for sure that there is an electric motor contributing to the production. These motors are playing important role in the industries called as horses of modern industry. Induction motors often operate in hostile environments such as corrosive and dusty places. These motors exposed to a variety of undesirable conditions and situations such as mal-operations. These unwanted conditions can cause the motor to go into a failure period, which may result in an unserviceable condition of the motor. The failure if not detected at its early stages, can result in a total loss of the machine itself, in addition to a likely costly downtime of the whole plant. More
important, these failures may even result in the loss of lives, which cannot be tolerated. The method proposed, allows analyzing the operating conditions of induction motors. In this method, Motor Current Signature Analysis (MCSA) is used particularly to detect loosening of broken rotor bars and end ring faults.

References

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Index Terms

Computer Science
Computational Intelligence

Keywords

Motor Current Signature Analysis  Fast Fourier Transform