



# **PLC and SCADA based Fault Diagnosis of Induction Motor**

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*Abstract* - Induction motors are widely used in many operating areas and industrial applications as they are simple, robust, reliable and have low production costs. The use of Induction motors have increased nowadays due to their versatility, good self-starting capability and these motors also offer simple, rugged construction, , low cost, reliability and easy maintenance. The reliability of an induction motor is of great Importance in applications such as commercial, aerospace and military and many industrial applications. In this paper different problems of IM are dealt with as over current, overvoltage, over temperature, over speed, inrush current, vibration monitoring during it's time of operation. There are various proposed methods for fault diagnosis and protection of IM. Some of them are Stator fault monitoring techniques, protection system using Microcontrollers, On-line fault detection, Programmable Integrated Circuit (PIC) based protection system and Programmable Logic Controller (PLC) based protection system. In this study, the method which is applied is PLC based protection system of an IM.

*Keywords* - Reliability, PLC, PIC, Fault diagnosis.