

INDUCTION MOTOR PROTECTION SYSTEMS

*A project report submitted in partial fulfillment of the requirements
For the award of the degree of*

BACHELOR OF TECHNOLOGY IN ELECTRICAL & ELECTRONICS ENGINEERING

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(Permanently Affiliated to Jawaharlal Nehru Technological University, Kakinada, AP)

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CERTIFICATE

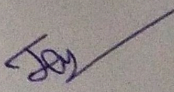
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During the academic year

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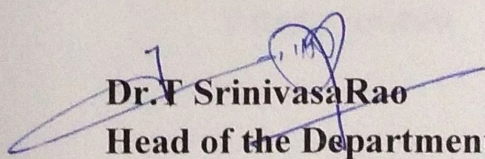

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ABSTRACT

Induction motors are mostly used in industries. The basic idea for the development of this project is to provide safety to an induction motor. This protection scheme development not only for induction motor we also protect electrical equipments like transformers, other type of motors etc...from faults and over temperature by using micro controller . If any of the phase, out of the three phases is missing or if the temperature of the motor during operation exceeds the threshold value, then motor stops immediately. The system uses a 3-Phase power supply where three single phase transformers are connected to it. If any of the phases is not available then the corresponding transformer stops supplying power to the circuit. This leads to the corresponding input of the micro controller changes, then immediately the micro controller sends a signal to the relay. The relay will be operated corresponding signal from micro controller, then the relay will be disconnect the supply then motor stops immediately.

A temperature sensor (LM35) is connected to the motor body, to sense the temperature of the motor. If the temperature of the motor exceeds the threshold value, then the micro controller sends a signal to the relay then the relay will be tripped, then the motor stops immediately.