



**NARNARAYAN SHASTRI INSTITUTE OF TECHNOLOGY
ELECTRICAL DEPARTMENT**



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Internal Guide:- Asst. prof Maulik Shah

Project Title:- AC MOTOR PROTECTION USING DIGITAL RELAY AND GSM INTERFACE

Abstract:-

The project titled for AC MOTOR PROTECTION USING DIGITAL RELAY AND GSM INTERFERENCE is designed for the purpose of protection of motor against Overload and Overheating with high sensitivity tripping and warning alarm with message information to operator via GSM interfacing system. This relay serves the same function as an electromechanical relay, but has no moving parts so it has high sensitivity and quick action against abnormal condition. Aim of this project is to alert the motor operator via SMS and hooter for abnormal condition take place in the motor so motor can be maintained in running condition continuously. If no action was taken by operator while abnormal condition like Overheating and Overload then the system automatically trip the motor circuit so motor winding does not get damaged.

Major Hardware components used:-

Microcontroller AT89C51, BTa Triac, LCD 16x2, LM7805, GSM module, Transformer 12-0-12

Software used:- KEIL

Project Application:-

- (1) Protection of ac motor
- (2) Protection of long conveyor belt motors
- (3) Motor protection in chemical industries
- (4) Protection of heavy motors applied to crusher plants, mixture plants etc.

Approx. Project Cost:- 12000

Project Photo:-



Block /circuit Diagram:-

