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A
Project Report
On

GSM BASED SMART SENSOR FOR INDUSTRIAL AUTOMATIC FAULT DIAGNOSER WITH VOICE FACILITY

SPONSERED BY KSCST, IISc

Submitted in partial fulfillment of the requirements for the award of
Bachelor of Engineering in **Electronics and Communication**

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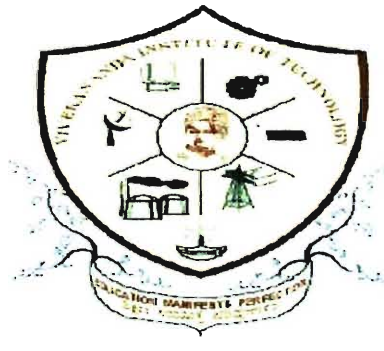

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ABSTRACT

This project conveys a broad coverage of industrial automatic fault detection. The main aim for developing this system is to obtain as much of time efficiency in tracking faulty parameter in industrial equipments such as voltage, temperature, current etc. And here we try to include security service as an added advantage.

This model avoids the scenario where in a service engineer will have to search for the faulty area from the scratch if the machine faces any mishappen in its operation.

The sensors and signal conditioning circuit sense and compare the relative parametric ranges. The embedded chip PIC microcontroller enables the specific ports and executes the respective code. Opto couplers circuit electrically isolates the digital and analog signal form. Voice recording and reproduction unit with sampling rate 4.2KHz and band width of 20Hz-2.1KHz gives voice message in accordance with the fault occurred at the transmitter side in the machine room. Whose output signal is amplified and fed to 8-16ohms speaker in the receiver side.

This will be very useful in areas such as industries such as chemical, automobiles also security for domestic. We trust this model is best outcome using the PIC microcontroller, APR9600, GSM module and the sensors which are the quality devices for this model.