

# MICROCONTROLLER BASED INTELLIGENT SECURITY SYSTEM TO DIAL SELF CELL OF OFFICE PHONE

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## ABSTRACT

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The project aims at designing an alarm system to detect any intrusion whenever a door or window is opened, or panic button is pressed and also makes a call to specific hand phone when there is an intrusion at the main door of the house.

This great home alarm system is made up of magnetic switches as sensors which are mounted on the main door of the house, which will give an indication to the PIC Microcontroller whenever there is a security breach in the house. The microcontroller will then send a signal to the DTMF trans-receiver module (MT8880) which in turn calls the preloaded mobile number. DTMF is a way of giving commands to the telephone switching system to dial the telephone number. When the owner answers the call, the ISD2560 chip is then activated and announces 'Break in Alert', which is preloaded in the chip and hence alerting the owner of the intrusion. Transmitting the preloaded voice message straight from the ISD2560 chip's audio is not sufficient enough to be heard through the telephone line therefore, the LM386 IC which amplifies the audio signal before transmission has been included in the circuit.

The PIC microcontroller is programmed using embedded C programming language and with the aid of programming it to also call the preloaded mobile number as soon as an intrusion occurs and playing back the voice feedback have been achieved. The ISD2560 chip has capability of storing voice messages up to 60seconds. This project design has been carried out successfully to meet the objectives and the system can be expanded and implemented in houses or offices with outer additional security features.

**Keywords:** *House Alarm System, Magnetic Switches, PIC Microcontroller, DTMF decoder, ISD chip, IC.*