GAS DETECTION ROBOT FOR ATOMIC POWER STATION

ABSTRACT

The aim of the project is to design a robotic system which can sense the presence of gas in atomic power station.

A robot is a mechanical or virtual artificial agent. In practice, it is usually an electromechanical system which, by its appearance or movements, conveys a sense that it has intent or agency of its own. The word robot can refer to both physical robots and virtual software agents, but the latter are usually referred to as Robots. There is no consensus on which machines qualify as robots, but there is general agreement among experts and the public that robots tend to do some or all of the following: move around, operate a mechanical arm, sense and manipulate their environment, and exhibit intelligent behavior, especially behavior which mimics humans or animals.

This project is built on 8051 micro controller with a robotic base on which a gas sensor is placed. The robot is moves autonomously, whenever the robot senses the presence of gas the micro controller activates a buzzer o go high to inform the nearest personnel.

This project uses regulated 5V, 500mA power supply. 7805 three terminal voltage regulator is used for voltage regulation. Full wave bridge rectifier is used to rectify the ac output of secondary of 230/12V step down transformer.

APPLICATIONS:

- Robotics
- Industrial applications

Block diagram :



A1, 2nd FLOOR, EUREKA COURT, KS BAKERY BUILDING, OPP. R.S.BROTHERS LANE, AMEERPET, HYDERABAD, TELANGANA-500073.