

## **ABSTRACT**

Fire Fighting Robot is robot which have the ability to find and extinguish a fire, also can find self the existency of a baby, a doll as a replica of a baby, which is there are a source of heat from 15W bulb.

The Baby Detection System using PIR (Pyroelectric Infrared) sensor. When the robot is in the room, the system will be search the baby, the sensor will detect the heat from the bulb. When the sensor detection the heat, Voltage-out from PIR sensor will increase about 3.5 – 5 Volt, that information send to microcontroller system. The system will process that information to approach a baby until put distance between  $\pm 20$ cm, range finder using ultrasonic sensor. Robot will drop a beeper thats mean at the place be found the baby. Gripper of Beeper is moved by a DC motor with self mechanic system. All system controlled by microcontroller AT89S52 using assembly as a programming.

*Keywords* : AT89S52; Beeper; Robot; PIR; Ultrasonic.