**PERSONAL ASSISTANT TO MAKE HOME SMARTER AND LIFE EASIER:**

ABOUT THE SYSTEM:

Home automation involves introducing a degree of computerized or automatic control to certain electrical and electronic systems in a building. These include lighting, temperature control, security systems, garage doors, etc. A hardware system is installed to monitor and control the various appliances. The system would control the appliances based on its configuration. For example, it could automatically turn on the lights at a specified time in the evening, or it could measure the ambient light using a hardware sensor and turn on the lights when it grows dark. It can also allow a person to control appliances from a remote location, such as over the internet. For example, one could turn on the air conditioning from the office, before leaving for home.

This project demonstrates a simple home automation system that allows the user to control it with a wireless device such as a Wi-Fi or Bluetooth enabled mobile phone. A desktop PC is used to run the server software. The system allows the user to control each of the lights and fans individually. It can automatically turn off the main lights and turn on a night lamp at a specified time. By measuring the signal strength, it can detect when the user enters a room and automatically turn on the light and fans, and then automatically turn them off when the user leaves the room.

METHODOLOGY:

The sensors connected to the microcontroller board are LM35, PIR and LDR sensor. LM35 is used to sense the temperature level in the house while LDR sensor is to sense the light intensity. The data sensed by the sensors are then used as feedback for automatic control of home appliances. The Main thing about these project is the whole project is only works when Somebody is present in front of PIR sensor Otherwise is turned OFF at all time.

• Total operating system is working only when the PIR sensor is active.

• When temperature of sensor is more than 30⁰ Celsius then automatically the fan will turn ON.

• When LDR detects darkness it turns ON light bulb.

• The bulb is automatically turn OFF at day time.

• Whole system is turned of when no one is in front of PIR

This is the circuit :

