

# Home Control System

## Faculty of Engineering

### Computer Engineering

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#### 1. Abstract:

*Since many years ago, human still seeking about any such development which could make his live easiest and flexible.*

*Never can any one live nowadays without using technology or any part from it such that mobiles, computers and home devices which sweep over our lives. Scientists, as they are, spending all them live in developments, improvements and in doing researches on many fields of technology.*

*Any one can see the big change in our live by the help of technology.*

*As we mentioned later; the way to improve security in our live, is one of the most important things that scientists and researchers can do to us.*

#### 2. Introduction:

All of life is going find rest for humans by the new technologies discovered.

In other words if you want to control your life easy you have to start from your home.

In our project we introduce and implement a control hardware system which can control your home doors, windows and heat simply by your computer. You may connect to the system any possible way to the home; it means you can include windows to the system. To maintain this system to do its work we have used sensors. Sensors (and heat sensors) are electronic devices which read the state of the door by using infra red ray, then send signals to the controller about all doors and windows.

The controller itself; is a hardware implementation of circuits and logic gates which are integrated in away to do its work.

After the signal received by the controller, analysis are applied on it then display the states on the screen (LCD).

An alarm system may be connected to the system to attend that a persons is trying to open a door. Our system can measure the grade of temperatures in the building and display the grade on the LCD. Of course by the help of sensors which distributed in the building to detect and read the temperature and end the signal to the controller which analysis it and display it on the LCD. The same alarm system also may be used to attend the persons inside the building if the temperature arises to

High level; in other word if there is a fire in the building.

#### 3. Objectives:

In our project, the hardware system had to do the following applications:

- The user can read and know the states of the doors and windows by using the LCD.
- The user can see the opened doors and the closed ones.
- A noise alarm when any door have being open.
- Measuring the temperature in the rooms or in the house as a whole.
- Display the temperature in special screen (LCD)
- Attention by an alarm when the temperature rises up to high grade.

As we know the economics of all developed nations are dependent on software; ideas and technological discoveries are the driving engines of the economic growth

In our project, are we real system engineers, how?

We have three attributes in our project:

**First:** we have hardware system which include the parts of the system It self such that, small circuits, integrated circuits, mechanical and electrical components, wires. Which complete the whole hardware system together.

**Second:** when we programming the IC'S and any programmable device used in the project. In other words, SOFTWARE.

**Third:** the designers and engineers whom integrate the system and implementing it steeply with the help of the requirements and documentation the interaction of the system with users and its environment.

Fig3.1: the general description of the hardware system.

