Mastership of An Apartment Using Android

Prof A. V. Gangurde[1], Bagad Niranjan Gokul[2] Kachare Abhishek Ratan[3] Mandole Sagar Vasant[4]

[1](Assistant Prof, LOGMIEER/SPPU, INDIA)
[2, 3, 4](E&Tc, LOGMIEER / SPPU, INDIA)

Abstract: *With advancement of technology things are becoming simpler and easier for us. Automatic systems are being preferred over manual system. This unit talks about the basic definitions needed to understand the Project better and further defines the technical criteria to be implemented as a part of this project. These control the devices. Then he/she can give command using the image on that application. For this to take image of that appliance and import the image into application using the Bluetooth module of mobile. Bluetooth receiver will be connected to the project. This Bluetooth device is connected to the circuit which has a decode. It sends out a code for respective command sent by user. This system then recognize the particular input through microcontroller and also help the physically handicap person to operate the home appliances.*
This project has integration of Android mobile technology and embedded system. Android mobile user has to install an application on his/her mobile handset to control the devices. Then he/she can give command using the buttons on that application. For this you have to turn on the Bluetooth on mobile, so the main wireless controlling technique used in this project is Bluetooth technology.
Keywords: *Application, Bluetooth, java development kit, software development kit.*

I. Introduction

In fast moving world, time is most important factor. You can turn on/off device in the industry by giving command through cell phone. It will save time as well as manpower required to control industrial devices. By using key command on android mobile we can control six devices. We can increase the number of devices. Most important factor about this project is that it is controlled using an application on android mobile. The person who has installed this application on his/her android mobile can only interfere in the controlling devices. Also it removes the need of carrying a remote control to turn on/off the devices.

This project has integration of Android mobile technology and embedded system. Android mobile user has to install an application on his/her mobile handset to control the devices. Then he/she can give command using the buttons on that application. For this you have to turn on the Bluetooth on mobile, so the main wireless controlling technique used in this project is Bluetooth technology. Bluetooth receiver will be connected to the project. This Bluetooth device is connected to the circuit which has a decoder. It sends out a code for respective command sent by user. Then the respective device connected to the circuit will be turned on or off depending on the command given. For example turn on Fan, Turn off Fan. Turn on buzzer etc. Such that by giving commands from mobile you can control industrial work.

This is more advantages, when we have to turn on the machinery at the time when we have another urgent task to do and we cannot get up from our place. In this case we can turn on machinery by giving simply command through mobile phone. There is no need to go to field.

II. System Implementation

1. What is Mastership of an Apartment?

Mastership of an Apartment gives you access to control devices in your home from a mobile device anywhere in the range place of Bluetooth. The term may be used for isolated programmable devices, like thermostats and sprinkler systems, but home automation more accurately describes homes in which nearly everything -- lights, appliances, electrical outlets, heating and cooling systems -- are hooked up to a remotely controllable network. From a home security perspective, this also includes your alarm system, and all of the doors, windows, locks, smoke detectors, surveillance cameras and any other sensors that are linked to it.

1.1 What is context in Automation System?

In a broad sense, context is the circumstances that form the setting for an event that allow that event to be fully understood. In regards to home automation, context is the set of inputs required to automate a task. To illustrate this, let's compare an old school programmable thermostat to a Nest learning thermostat.

Thermostats have a simple job: maintain the temperature of a room. If the temperature falls below the set point, or desired temperature, they enable the heating system. Once the temperature reaches the set point, they disable the heating system. The programmable thermostat has two inputs: the set point and the current temperature. In most cases, the user programs the set point at various times of day for each day of the week. The thermostat then monitors and compares the current temperature to the desired set point and acts accordingly. The Nest learning thermostat also allows the user to set a schedule, but has a few more inputs, such as occupancy and manual overrides. If the schedule says 72 degrees but the Nest doesn't think anyone is home, it will lower the temperature automatically. If the schedule says 70 but every morning you turn it up to 74, the Nest will learn and adjust the schedule over time to mirror your preferences. Every task that can be automated has unique context requirements. Some need a single input while others need half a dozen.
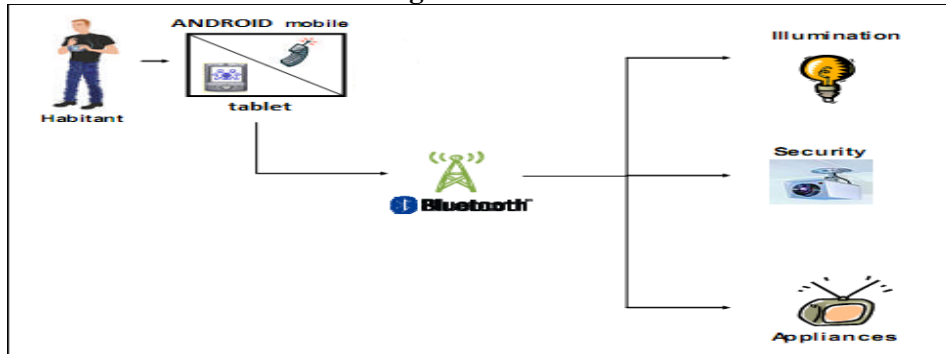
III. Figures And Tables

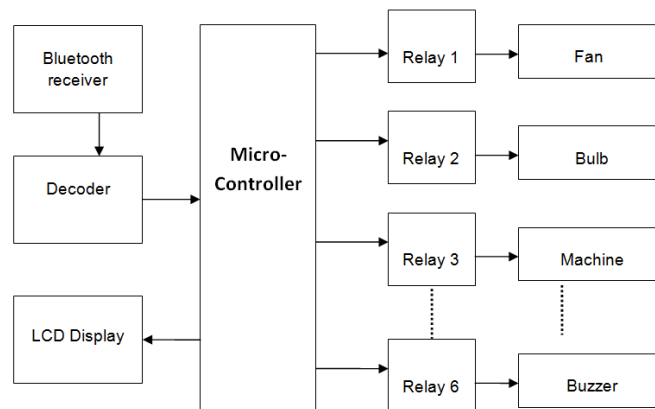**Fig 1.1:** *Integration of Android Mobile System and Embedded System*

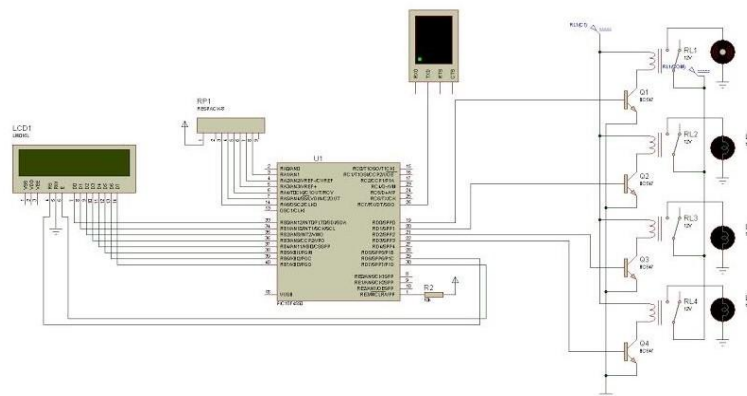**Fig 1.2** *Block Diagram of Project*
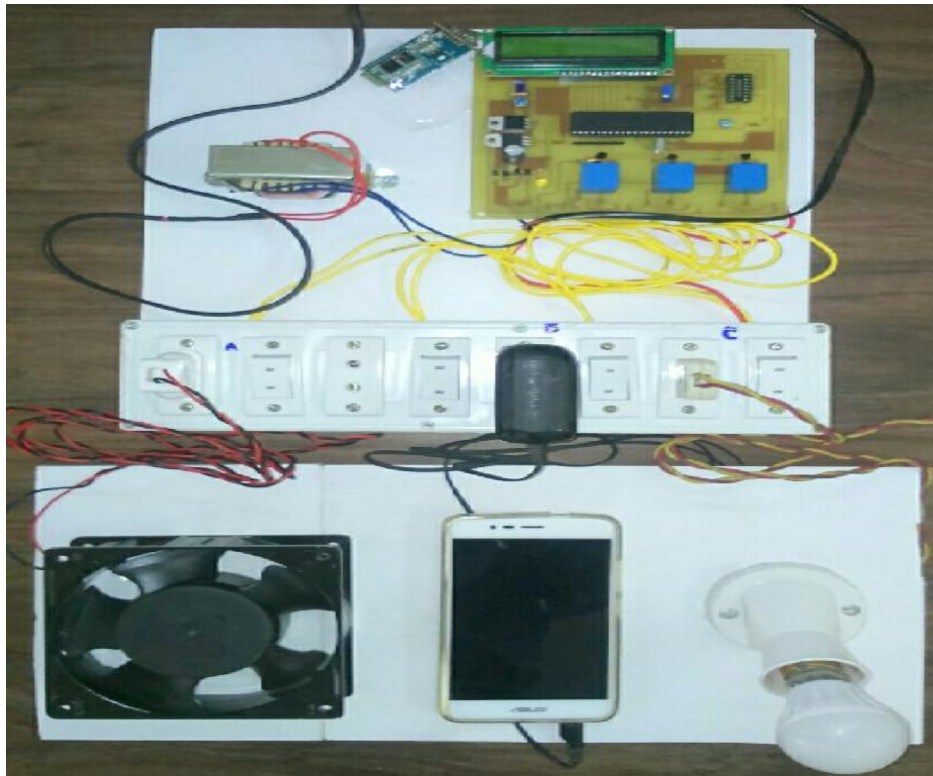

Fig 3.3 *Circuit Diagram*

Fig 1.2 *Projects*

IV. Conclusion

With the knowledge of new techniques in 'Electronics' we are able to make our life more comfortable. One such application of electronics is used in "Bluetooth controlled home devices using Android mobile" The approach we followed and which is explained in this project report is novel and has achieved the target of "Bluetooth controlled home devices using Android mobile" satisfying user needs and requirements. The development of this project has shown how much hard work goes into the creation of a system. "Bluetooth controlled industrial devices using Android mobile" was a project based on microcontroller, due to which hardware requirement is reduced. Embarking of this project has helped us in developing a team spirit, patience and time management necessary for today's technical professionals.

Hence we can conclude that the required goals and objectives of our project have been achieved. This project has built in us confidence that any problem can be solved with sheer determination, hard work and optimism. We feel that our product serves something good to this world and we like to present it before this prosperous world. By doing this project, we were better able to understand the various facets of doing an embedded system project which is emerging as one of the most 'in demand' technologies right now.

Application:
1. Industrial automation - This project can be used to control various devices in the Industry.
2. In Defense area like Military, ISRO.

Acknowledgements

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Examples follow:

Journal Papers:

[1]   M Ozaki, Y. Adachi, Y. Iwahori, and N. Ishii, Application of fuzzy theory to writer recognition of Chinese characters, *International Journal of Modelling and Simulation, 18(2),* 1998, 112-116.*Note that the journal title, volume number and issue number are set in italics.*

Books:

[2]   R.E. Moore, *Interval analysis* (Englewood Cliffs, NJ: Prentice-Hall, 1966).*Note that the title of the book is in lower case letters and italicized. There is no comma following the title. Place of publication and publisher are given.*

Chapters in Books:

[3]   P.O. Bishop, Neurophysiology of binocular vision, in J.Houseman (Ed.), *Handbook of physiology,* 4 (New York: Springer-Verlag, 1970) 342-366.*Note that the place of publication, publisher, and year of publication are enclosed in brackets. Editor of book is listed before book title.*

Theses:

[4]   D.S. Chan, *Theory and implementation of multidimensional discrete systems for signal processing*, doctoral diss., Massachusetts Institute of Technology, Cambridge, MA, 1978. *Note that thesis title is set in italics and the university that granted the degree is listed along with location information*

Proceedings Papers:

[5]   W.J. Book, Modelling design and control of flexible manipulator arms: A tutorial review, *Proc. 29th IEEE Conf. on Decision and Control*, San Francisco, CA, 1990, 500-506