



Application Based Wireless Notice Board

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Abstract— *The main objective of the project is to develop a wireless notice board that displays notices. When a message is sent from the user's android application device. Remote operation is achieved by any smart-phone/Tablet etc., with Android OS, upon a GUI (Graphical User Interface) based touch screen operation.*

Keywords— *Bluetooth, automated, notice board, audrino.*

I. INTRODUCTION

An Embedded System is a combination of computer hardware and software, and perhaps additional mechanical or other parts, designed to perform a specific function. An embedded system is a microcontroller-based, software driven, reliable, real-time control system, autonomous, or human or network interactive, operating on diverse physical variables and in diverse environments and sold into a competitive and cost conscious market.

An embedded system is not a computer system that is used primarily for processing, not a software system on PC or UNIX, not a traditional business or scientific application. High-end embedded & lower end embedded systems. High-end embedded system - Generally 32, 64 Bit Controllers used with OS. Examples Personal Digital Assistant and Mobile phones etc .Lower end embedded systems - Generally 8,16 Bit Controllers used with an minimal operating systems and hardware layout designed for the specific purpose.

A. Characteristics of Embedded System

An embedded system is any computer system hidden inside a product other than a computer.

They will encounter a number of difficulties when writing embedded system software in addition to those we encounter when we write applications

Throughput – Our system may need to handle a lot of data in a short period of time.

Response–Our system may need to react to events quickly

Testability–Setting up equipment to test embedded software can be difficult

Debug ability–Without a screen or a keyboard, finding out what the software is doing wrong (other than not working) is a troublesome problem

Reliability – embedded systems must be able to handle any situation without human intervention

Memory space – Memory is limited on embedded systems, and you must make the software and the data fit into whatever memory exists

Program installation – you will need special tools to get your software into embedded systems

Power consumption – Portable systems must run on battery power, and the software in these systems must conserve power

Processor hogs – computing that requires large amounts of CPU time can complicate the response problem

II. LITERATURE REVIEW

Based on the Intel 8051 core, the AT89 series remains very popular as general purpose microcontroller, due to their industry standard instruction set, and availability of these chips in DIL (DIP) package. This allows a great amount of legacy code to be reused without modification in new applications. While less powerful than the newer AT90 series of AVR RISC microcontroller .the alternate function can only be activated if the corresponding bit latch in the port SFR contains a 1. Otherwise the port pin is stuck at 0. [1]

BLUETOOTH MODULE- Bluetooth module HC-05 is a MASTER/SLAVE module by default factory setting is SLAVE. Can be configured only by AT COMMANDS .The slave modules cannot initiate a connection to another Bluetooth device, but can accept connection. Master module can initiate a connection to other device. A Bluetooth module is usually a hardware component that provide a wireless product to work with computer; or in some case the Bluetooth may be an accessory or peripheral or a wireless headphones. [2]

In power supply design, a bridge circuit or bridge rectifier is an arrangements of diodes or similar device used to rectify an electric current. A bridge rectifier full wave rectification form a two wire AC input ,resulting in lower cost and weight as compare to rectifier with a 3 –wire input from a transformer with a center tapped secondary winding.[3]

In modern terminology it is a system on a chip SOC .A microcontroller contains one or more CPUs along with memory and programmable input/output peripherals. Most of them have an EPROM program memory with a transparent quartz window in the lid of the package to allow it to be erased by exposure to ultraviolet light. [4]

They are colored inductor lights on many electronic devices , the can be used to make bright advertising signs (quality applied in our project) brake lights on a car ,in TVs and more recently light bulb for the home .white LEDs light enough to illuminate rooms. Advantages of LEDs lower energy consumption, longer life time improved physical robustness smaller size and faster switching. [5]

III. FUTURE SCOPE

- A. By making it can be made portable and easily accessible to all.
- B. It can be used for women security purpose by adding a GSM, Can be used in gaming zone by making electronic gloves using the flex sensors.

IV. CONCLUSION

We have successfully completed this project. The objective of this proposal was to develop a home automation system based on Bluetooth wireless technology. The result is the HAP, which allows the user to monitor and control different appliances connected over a Bluetooth network in home environment. The home-office concept that enables consumers to control their home appliances via the Internet is also possible. With our home system, which consists of the HC that usually takes a form of PC, Internet connectivity can easily be established and control be made available. Efforts in such direction will help realize a truly wireless, fully automated home automation system.

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