



# Mobile for TV Control

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## Abstract:

Electronics device have revolutionized the human lives, next step comes in automation of every sector. This paper presents an idea into the era of automation, networking making lives ubiquitous. Although numbers of applications are available, this idea talks about controlling TV from distant place. Control of TV is the basic aim behind this idea. Internet of things is used to achieve the aim. This is very simple, low cost, manageable, secure and easy technique.

**Keywords:** TV, Internet of things, Distance controlling, Mobile

## I.INTRODUCTION

TV has taken a biggest space in human lives today. It is not only elders but children are also in the storm of TV. There are numbers of reasons for children to get attacked by this storm but it is really difficult to get them out OFF this. This problem was the motivation in thinking, design and building the idea to reality. A simple control is the need of the how to switch off the TV after a defined time also a monitor to how much time TV is ON and which channel for how much time is displayed is needed to the parents/elders. Remote control do exist but the monitor or control has to be at the same place which is not the scenario and hence a control from distant place is the theme of this paper. Although numbers of systems do exist review of existing systems to make it easy affordable feasible and realistic is done.

## II.EXISTING SYSTEM

Below existing works were mainly focused on switching and controlling the T.V rather than remotely monitoring it. By using below technologies

### 1. SMS

- **Paper name:** IJCSMS International Journal of Computer Science and Management Studies, Vol. 11, Issue 02, Aug 2011 ISSN (Online): 2231-5268

- **Authors:** Amit Chauhan<sup>1</sup>,Reecha Ranjan Singh<sup>2</sup>, Sangeeta Agrawal<sup>3</sup>, Saurabh Kapoor<sup>4</sup>, S. Sharma

- **Conclusion of the paper:** SMS based remote control for home appliances is beneficial for the human generation, because mobile is most recently used technology nowadays. The SMS based remote control for home appliances is easy to implement the system that ON/OFF the electrical device through remotely via SMS or it handled more and more electrical devices which are used in home. In simple automation system where the internet facilities and even PC are not provided, one can use mobile phone based control system which is simple and cost-effective. Alternatively for such requirements landline phone with extension card could also be select for the system. In the next paper we are develop the audio or voice based and also include the text based (SMS) remote home and office control system. With the help of the

audio or voice we can control the electrical devices or domestic or home appliances. Voice based approach is beneficial for physically handicapped persons or blind persons, with the help of speech we can control home or office appliances remotely.

### 2. Zigbee:

- **Paper Name:** Zigbee technology and its application in wireless home automation systems: a survey

- **Authors:** Thoraya Obaid, Haleemah Rashed, Ali Abou-Elnour, Muhammad Rehan, Mussab Muhammad Saleh, and Mohammed Tarique

- **Conclusion:** In this work, a technical overview of the ZigBee technology has been presented. The main features of the ZigBee technology have been highlighted in this paper. Although the ZigBee has numerous applications, we limit this effort only to its application in WHAS. The performances of the ZigBee based WHAS have been compared with those of other competing technologies including Z-Wave, Insteon, Waveins, WiFi, and Bluetooth. It has been shown that the ZigBee based WHAS outperforms other technology based WHAS. A comprehensive survey work on the ZigBee based WHAS has been presented in this paper. Some limitations and challenges of the ZigBee based WHAS have also been listed in this paper. Based on this survey work we can conclude that the ZigBee can be considered as the most suitable technology WHAS compared to other existing technologies. But, there are still some challenges of ZigBee based WHAS that are still under investigations.

### 3. Bluetooth:

- **Paper Name:** Safe and Secure PIC Based Remote Control Application for Intelligent Home.

- **Authors:** E. Yavuz, B. Hasan, I. Serkan, K. Duygu,

- **Conclusion of the paper:** Remote control system by telephone presented in this paper is based on PIC and has very secure structure. Designed circuit is isolated both optically and electrically; therefore it does not create any effect on telephone line. With pin-check system, non-authorized people cannot connect to or use this system. In this application, secure, cheap

and safe remote control system for intelligent houses has been presented.

**Above TV automation systems face four main challenges;**

1. These are high cost of ownership
2. Inflexibility
3. Poor manageability
4. Difficulty in achieving security.

**III.OVERVIWE OF INTERNET OF THINGS**

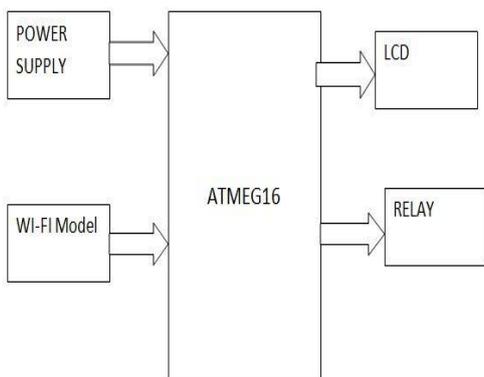
To overcome above challenges IoT a new technology was thought and is used tp implement the idea pretended here. The Internet of things (IoT) is the inter-networking of physical devices and other items—embedded with electronics, software, sensors, actuators, and network connectivity that enable these objects to collect and exchange data. Extending the web will provide connection, communication and internal networking between devices and physical object, or things, may be a growing trend that’s typically mentioned as internet of things. This sometimes referred as the internet of objects. It represents subsequent evolution of the web, taking a large leap in its ability to analyse and distribute the data that we can change into information, knowledge and ultimately, wisdom.

Below are some advantages of IOT over the existing systems

1. Global reach, reliability.
- 2.Cellular network and device capability enhancements are being driven through the standardization process at 3GPP to meet emerging requirements of ubiquitous coverage.
3. low-cost devices, enabled through software upgrades of existing networks.
4. Another advantage of this technology is enablement by software upgrades of existing cellular networks, providing nationwide IoT coverage without additional hardware.

**IV.HARDWARE CONFIGURATION**

**BLOCK DIAGRAM**



**In this project we are going to use below hardware components**

1. Processor: ATMEG16: It is a High-performance, Low-power Atmel® AVR® 8-bit Microcontroller. This will send the commands and control the TV.
2. Wi-Fi Module: It will used as communication path between mobile and TV controlling Unit.

3. Relay: Used as Switch and directly connected to TV.
4. Power supply: 5V power supply is used for controller.

5. LCD: LCD will display the status of TV

**V.WORKING**

1. We are going to send a command (On/Off) through a mobile app.
2. The Wi-Fi module will receive the (On/Off) Command.
- 3.The Wi-Fi module will send the (On/Off) command to the controller .
  3. b. If the controller get command to turn off T.V .It will pass (0) i.e low voltage to turn off the T.V.
4. 5. Also we will able to know the on duration of the T.V. how much time T.V will on.
  4. After receiving the command from the Wi-Fi Module the controller will decide to turn on or turn of the T.V and according to it will send the power voltage to the relay controller.
    - a. If the controller gets the command to turn on the T.V then it will send high voltage (1) to turn on the T.V.

**VI.SOFTWARE CONFIGURATION**

**A. AVR Studio**

AVR Studio is an Integrated Development Environment (IDE) for writing and debugging AVR applications in Windows 9x/ME/NT/2000/XP/VISTA environments. AVR Studio provides a project management tool, source file editor, simulator, assembler and front-end for C/C++, programming, emulation and on-chip debugging. AVR Studio supports the complete range of ATMEL AVR tools and each release will always contain the latest updates for both the tools and support of new AVR devices. AVR Studio 4 has a modular architecture which allows even more interaction with 3rd party software vendors. GUI plug-ins and other modules can be written and hooked to the system.

**B. Mobile App.**

To on off TV remotely we need to use/develop a android app. We will be using the BLYNK app in our phone Blynk help businesses to build successful connected products. Our platform enables organizations to move smoothly from prototype to production in short iterations, collecting feedback, and refining the product at every development stage. With Blynk, a single engineer can get any electronic equipment online, connect it to the Internet, and build a mobile application in minutes to remotely monitor and control it.

**VII.CONCLUSION**

In this project we are going to develop a novel architecture for low cost and flexible TV control and monitoring system using android based smart phone. Any android based mobile can be used to control TV using web services such project can be very useful for old, physically disabled and working at far distance people and also for parental control the system will reduce wiring.

**VIII.REFRANCE**

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