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RESEARCH ARTICLE

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IOT BASED MOBILE CHARGING SYSTEM EASYGOVERNANCE USING RASPBERRY PI

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ABSTRACT
In Modern era, usage of Mobile Phones is in drastic vertical growth, enables connecting world in less moments. The smart phone users are increasing day by day in millions and device connecting requires fastest Operating Systems (OS) in micro seconds (µs). The Complicated system trades-off between Power and Speed, to operate these mobile phones charging is required at drain-off stage, and charging method at emergency makes panic moments to the common peoples. The Charging of smart phones done by various methods inclusive of power banks with demerit of spurious power dissipations to the processor. The design supported RASPBERRYPI a 40-pin micro controller that does the countdown timings for a period of 5 minutes with LCD displays showing the actual time left. During the timing period a relay output is latched and finishing timing on-going. Recommended locations include: Hotels, Conference centers, Exhibition halls, Serviced offices, Exchange halls, Hotels, Health clubs, Training centers, Golf clubs, Shops, Shopping malls, Internet cafes, Universities, Colleges, Hall of residence, Airports, Train terminals. So that mobile users can reactivate a low or dead battery by simply plugging in and charging for RFID

INTRODUCTION

The mobile market may be a vast industry, and has spread into rural areas as an important means of communication. While the urban populations use more sophisticated mobiles with good power batteries lasting for several days, the agriculture populations buy the pre-owned mobile phones that needed charging frequently. Many times battery becomes flat within the middle of conversation particularly at inconvenient times when access to a typical charger isn't possible. The RFID mobile battery chargers are designed to solve this problem. The user has to plug the mobile phone into one of the adapters and insert a RFID; the phone will then be given a micro pulse for charging. It doesn't bring a mobile from 'dead' to completely charged state. The charging capacity of the mobile is meant with the assistance of pre-defined values. It is of course, possible to continue charging the mobile by inserting tag. The compact and light-weight product is meant to cater for the growing number of rural mobile users worldwide. A suitable microcontroller is programmed for all the controlling applications. The source for charging is obtained from direct power system.

LITERATURESURVEY

The students of Annasaheb Dange college of engineering and Technology develop on coin insertion based charger if stays that a modern developing years students and many other people use. The public transportation people who are making every long journey. Even through one or two power point are provided at particular place in

vehicle is not sufficient for act passengers. Therefore need to provide a public charging service is essential to overcome this coin based mobile charging are designed to solve this problem user has plug the mobile phone into one of adapter and insert a coin. Then phone will give a micro pulse for charging. It does not bring a mobile from dead to fully state, charging capacity of mobile designed with help of predefined value.

Magdinmartin, Koprdastefan, Ferenczylubor [2], says that Security is old as humanity itself, between that include simple mechanical locks whose authentication elements was the key. The main method are uniqueness and impossibility of other loss, for security purpose having the fingerprint scan of eyes (or) face feature recognition system, step involved user enrolled into proposed system biometric traits are captured and stored in a form of reference template. Second step reference template compare with sample template. Third step is template is template method if already available output from system is fully available if it false means reduce verification process.

BLOCK DIAGRAM

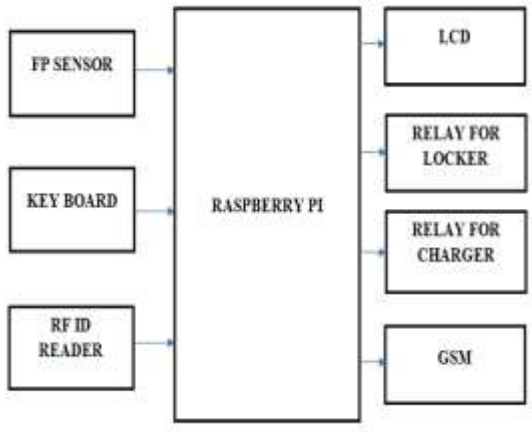


Fig. Block Diagram

FP Sensor – Finger print sensor

RF ID Reader – Radio Frequency Identification

LCD – Liquid Crystal Display

GSM – Global System for Mobile communication.

PROJECT OVERVIEW:

The Raspberrypi microcontroller, a LCD display, Rfid tag and reader, it stooddeveloping to solve the Battery Discharge problems. In this, System is designed using embedded code for the interfacing of LCD and Sensor. While inserting an rfid tag into rfid reader,if rfid valid then controller start countdown and mobile will charge. The system design can be classified in two categories, Hardware implementation and software implementation

Hardware Implementation

In this system, power supply is used to provide the power to the whole circuitry like raspberrypi, relay, finger print sensor, gsm, are the main components used for designing the system. Power supply is also given to the rfid reader for inserting a rfid tag. In this proposed system, we have used Raspberrypi 3B. For Displaying the charging time period the microcontroller is programmed using software interfacing with the help of kill software. This displayed on the 16*4 LCD display.

Fig. Hardware implementation

Software Implementation:

For Software Implementation we have used the “python program”. In Software implementation, the main part is programming of the “Raspberrypi” microcontroller and interfacing of each device like LCD Display, Relay, and FP sensor. Once the power supply is given hardware circuit is get initialized. The local server is used to store the database (MySQL).

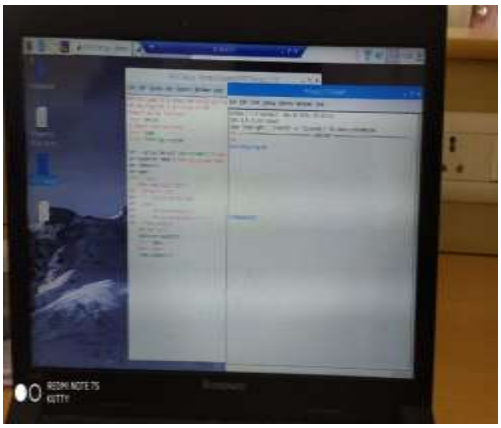
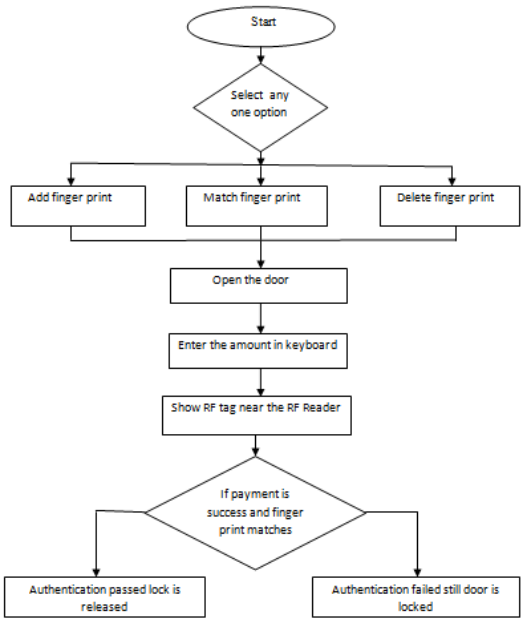


Fig: RFID

Fig. Finger print sensor

Flow Chart:



CONCLUSION

A way of charging mobile batteries of various manufactures has been designed and developed whenever required. This project is extremely useful in today's life. Because now days the need of communication is extremely important, so everyone having telephone but whenever we cannot carry with us. Once we are going for long travel we may forget to hold telephone charger. This project is employed to assist people by RFID tag based charger. Also now days because use of internet and smart phones, this type of project is extremely useful. Conventional grid power is employed for mobile charging.

RESULT

In this system, we have implemented the simple and hand efficient mobile charger which helps the user, charge their phones during urgent needs. This system is very helpful to the users who are all using mobile phone without charging conditions in public places. This system simple to use and is less expensive.

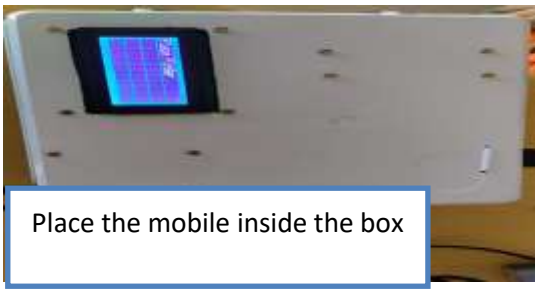


Fig. Result

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