Implementation of Android Based Smart Wallet

[1.] Sahil Sarode (55) [3.] RiteshMeshram (51)

[2.] Shruti dongre (59) [4.] Aniket Bhoyar (06)

B.TECH8[th] SEMESTER IT
DEPARTMENT OF CSE-IT
Prof. Jolly Nikhade Prof. Bhagyshree Prof. SupriyaSaswashree
J D College Of Engineering and Management, Nagpur

Abstract
Now a days, Smart wallet could be a trend in an exceedingly market. scrutiny this Smart wallet with the commonplace wallet, that is out there within the marketplace, smart wallet has many options. we tend to all forget our wallet at community places or at train station or flying field. therefore by exploitation this wallet we are able to overcome the disadvantages of the normal wallet. By exploitation smart wallet we are able to trace the place of the wallet, tick the photographs of the felony and lots of further. The smart wallet is an electronic device that support an individual to store their personal information securely. The smart wallet will do all the factor that the everyday dumb wallet will, but it will contain different options like mobile charging, anti-theft protection, etc. The smart wallet is always high-priced than the regular carrier, but it is habitually superior and appears shiny along side some additional tech incentive. therefore during this paper we tend to propose a smart wallet with options like notification to users, concerning for feature of our wallet and site of our wallet

I. Introduction

Several of us mostly forget our Wallet or sometimes become a target of Wallet theft too. Losing Wallet is a very excruciating involvement, so we are presenting a Wallet that almost follows you. Smart Wallet is the modern-day Wallet with GPS System involved in it. We just have to link our smart phone with our Smart Wallet and track it through the app. The wallet is very private and personal item which is usually kept hidden. Losing wallet is a very harrowing experience. This smart wallet works in two modes, one is normal mode and another is missing mode. Once the wallet get theft by person and if the person tries to unlock it, the smart feature built-in camera snaps the quick image of that person and sends to the users phone. The Smart Wallet is a insignificant electronic device that supports an privacy to store their personal information firmly. The resolution of the device is to secure vigorous electronic information as well as money. However, unlike most menial proof strategies on the marketplace, the Smart Wallet proposals the choice for an specific to store incorrect password as well as photo of that particular person.

II. Literature Survey

1. Smart wallet, University of Mumbai, 17 Nov 2018 Runali Patel
2. GPS based location and Route tracking on android device, School of computer science Engineering, Malaysia, 21 June 2017, Mr. Joshua Samual.
3. GPS wallet tracking, University of technology Bangkok ,15 October 2020, Mr. AFP.
4. Real time management system using GPS, Tamil Naidu India, 05 May 2019, Mayank Jain.
5. Android base wallet, Department of electronic technology university Myanmar, 12 June 2019, Mr. Naing
6. Design and implementation of GPS base tracking system, Sardar Vallabhbhai national institute of technology, 13 July 2018, Sudhanshu Janwadkar.
7. Smart way tracking system by using android system, Department of CS Pondicherry university, 15 September 2019, Sandesh K.S.
8. Bluetooth base wallet, Florida, 20 Oct 2020, Suzanne Kantra.

III. Methodology

In this section we descirbe about the block diagram of proposed system of Smart Wallet. Each Module of the system is described as follows
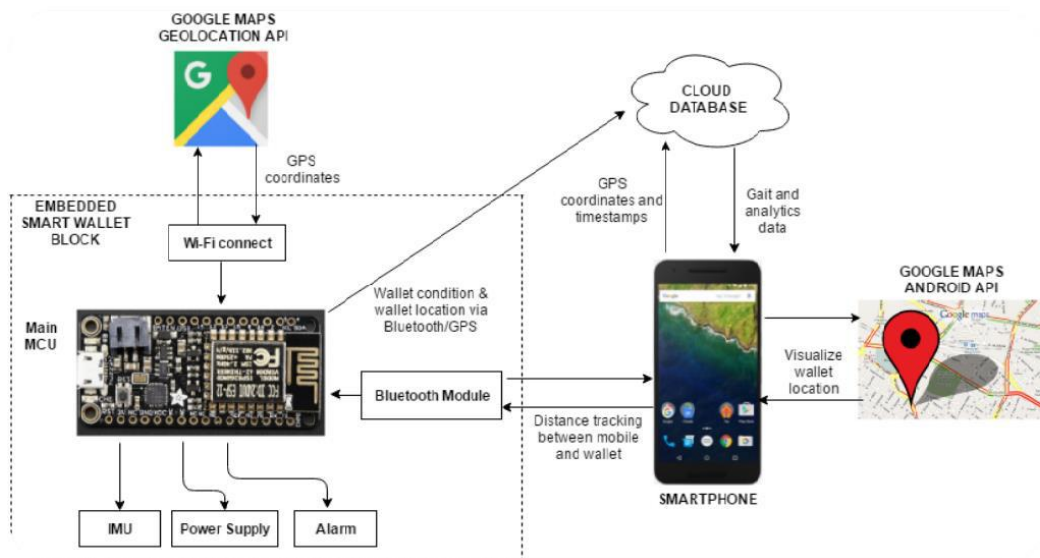

Diagram Description

1. Mobile Module (Smartphone)

This is the system which is consolidate with the wallet with the assistance of Bluetooth Module. Once the wallet enters in the lost mode the location of the wallet would be tracked with help of mobile module. The picture of the theft/person would be sent to this module. Bluetooth module is going to interact with smart wallet with the help of this system.

2. Bluetooth Module

This module is basically passed down for Bluetooth Distance alarm system. At the beginning. we have to pair our wallet with our mobile unit with the assist of this module. If the wallet far-flung the space of 10m then the alarm in the mobile unit will specify that wallet has entered in lost mode and also beep the buzzer.
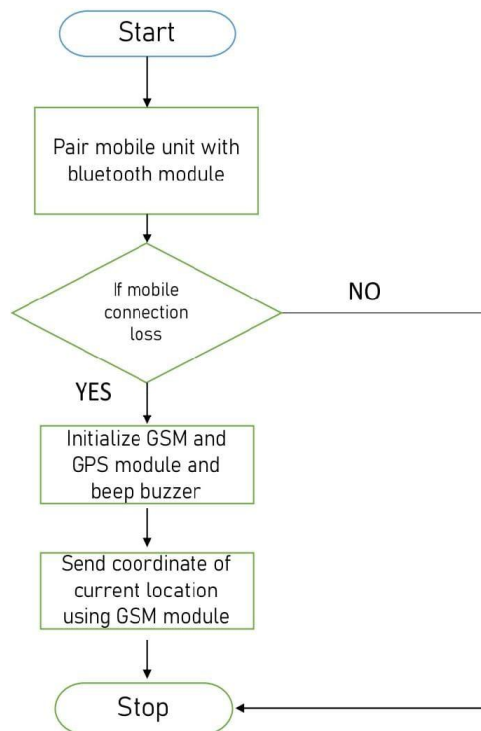
3. Power Supply Unit

This part supplies power to each and every Components in our project, Some module need 5V supply while some module need 9V input supply voltage. So a unsteady supply voltage is provided by this power supply section.

4. Processor Unit

This is the main component of our Project. This component controls the entire system of Smart wallet. In Smart wallet we are going to using Ardunio Processor board. All the instructions are executed by this Component. All the instructions of user are managed by this component. Bluetooth module is controlled by this component.

Here is the quick summery of the system. First we pair mobile unit with Bluetooth module. Then using Bluetooth module we trace our wallet location, suppose Bluetooth connection is lost or smartphone goes out of range, immediately the system Bluetooth module sent message to the smartphone and alert the user by turning on beep buzzer. If unauthorized person try and access the notecase at that moment the camera module capture the image of that one who is attempting opening the safety of the notecase.

Flow Diagram

Fig. Flow Diagram

The Above flow diagram show us the flow of the smart wallet system. First we have to connect our smartphone or mobile unit to the Bluetooth module. After that there are two cases first one is if the wallet goes far from the Bluetooth range or out of Bluetooth range then quick buzzer or alarm will activate and massage will send to the connected mobile unit. And in second case if someone invade or someone theft the wallet the camera module will capture the image of theft and it will sent to the mobile module and buzzer will beep quickly. And the image captured by the camera can be sent via Email to the mobile unit. The processor unit is the main hub of Smart wallet system. This section controls the entire flow of a system of Smart wallet such as accomplishment of directives, controlling the instructions from the user etc. Thus we explain here working flow of entire system.

Advantages
1. Security of data
2. Ensure data accuracy
3. Minimum time needed for various processing
4. Greater efficiency
5. Better service
6. User friendliness and interactive
7. Minimum time required
8. Comparatively low price

Application
1. Location- determining a position
2. Navigation- getting from one place to another
3. Tracking- monitoring object or personal movement
4. Mapping
5. Timing- bringing precise timing to the world

IV.   Future Scope
In 21st century we are so busy with our schedule that we forget things and most importantly our wallet so this device help us to feel secured and relaxed. Just in one touch on smartphone we can track our wallet Not only wallet but car key, pet, office stuff and luggage as well. because of this tiny device by the setting on the

object and connect it with mobile phone It will provide higher security by increasing the version of Bluetooth module with higher range. and we in future we can use it everywhere in the universe. due to this system our data, money, jewllery and other expensive small gadgets can be safe and secure.

V.   Result

When the Microcontroller gets signal that wallet is stolen or taken from someone it will capture the image of that person or theif using camera module and send it to the users mobile unit. And location of wallet can also track by user through GPS module. If the wallet goes far from the distance of Bluetooth model it will measure distance and quick alarm system will get activate. The communication gateway will upload coordinates extracted by the microcontroller and converts into a readable format. The user can recover the position of the wallet synchronizes in real time on the internet.

VI.   Conclusion

The developed prototype is a Smart wallet. The smart Wallet implements the use of real time system, which accounts for the proper functioning of the GSM and GPS system along with Camera Module System. As quick as the Wallet is unpaired with users Smartphone the GPS synchronizes and the theft image is sent to the specified phone number or mobile system using GSM Module and Smart Wallet also has some inbuilt features location tracking. In future this proposed methodology can be built up by reducing the Smart Wallet size and make it more compact system.

Reference

[1].   https://www.indiegogo.com/.../volterman-world- s- most-powerful-smart-walletpowerban.
[2].   https://www.indiegogo.com/.../volterman-world-s- most-powerful-smart-walletpowerban.
[3].   https://www.iarmenia.org/volterman.
[4].   https://dornob.com/volterman-the-worlds-most- powerful-smart-wallet/
[5].   https://www.kickstarter.com/projects/wooletco/woo le t-the-slimmest-smart-wallet-forthemodern-ma
[6].   http://simcom.ee/documents/SIM800/SIM800_Hard ware%20Design_V1.08.pdf
[7].   https://play.google.com/store/apps/details?id=com.g_ zhang.BVCAM&hl=en
[8].   https://www.lcdmodule.de/fileadmin/eng/pdf/doma/o lede. pdf
[9].   I," 21 6 2021. [Online]. Available: https://www.ijert.org/smart-wallet-kit-byusing-android-applications-and-bluetooth-and-gps.
[10]. INTERNATIONAL JOURNAL OF ENGINEERING RESEARCH & TECHNOLOGY (IJERT)," [Online]. Available: https://www.ijert.org/smart-wallet-kit-by-using-androidapplications-and-bluetooth-and-gps. [Accessed 21- 6 -2021]