

## PROTECTIVE TRACKING DEVICE FOR CHILDREN

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**ABSTRACT:** *In the EXISTING SYSTEM of tracking, to identify the missing children is really very tough. We could not able to monitor them all time. Hence I am proposing the new system of tracking using a social medium. In the PROPOSED SYSTEM, it includes two components: The messaging system and the self-rescue system. The messaging system runs on the smartphones of rescue works for survivors and provides message transmissions. The self-rescue system runs on the smartphones of trapped survivors, which automatically forms groups with nearby trapped survivors, performs positioning and sends out emergency messages. In the MODIFICATION, we are implementing this concept for tracking kids or old age People. We would attach Bluetooth/Zigbee device in either Kid / Aged people as well as with the Guardian. If Kid is out guardian's control area then automatically a notification message will be passed passed to the guardian & parallel it is forwarded to multiple groups opted by the guardian along with the device ID of the Kid. Our Android application continuously tracks the presence of the kid's ID, if any application detects the Kids ID then automatically GPS of the Android user is captured and location is shared to the corresponding Guardian immediately so as to track the Kid / Age old people*

### I. INTRODUCTION

The aim of our project is tracking is the missed children's using social network and also gives notification to parents. In the last decade, many communication technologies have been applied to improve rescue efforts following a disaster, such as deploying wireless sensor networks for emergency response [1], [2] and employing smart badges to form a mobile ad-hoc network and then gathering information from trapped survivors of structural collapse [3]. However, as learned from the 2011 Great East Japan earthquake, the only helpful services in disaster recovery are those that are used daily by everyone [4]. To provide communications in disaster recovery, smartphones, equipped with both cellular and short-range radios (e.g., Wi-Fi, Bluetooth), are the most promising communication tools. Although cellular towers might also be destroyed by disasters, e.g., in the 2008 Sichuan earthquake [5], short-range radios of smart phones can still provide communications. Moreover, the ubiquity of smart phones further opens great opportunities to reinvestigate disaster recovery from the network point of view. In disaster recovery, smartphones have the potential to be the most feasible communication tools. For example, trapped survivors of a structural collapse can communicate with rescue workers and report their position information through the short-range radio (e.g., Wi-Fi) of their smart phones when they are within the communication range of each other. Smart phones of rescue workers can also form

networks using Wi-Fi and meet the communication needs in disaster recovery. To this end, in this paper, we propose Team-Phone, a platform for communications in disaster recovery, where smartphones are teamed up and work together to provide data communications.

By exploiting Wi-Fi and cellular modules of smartphones, Team-Phone seamlessly integrates cellular networking, ad-hoc networking and opportunistic networking, and supports data communications among rescue workers in infrastructure-constrained and infrastructure less scenarios. Team-Phone also enables energy-efficient methods for trapped survivors to discover rescue workers and send out emergency messages, by carefully addressing the wake-up scheduling of smartphones.

The emergency message includes the coarse-grained location and position information of trapped survivors, which is derived from the last known locations of their smartphones and the network formed by these smartphones. We implement Team-Phone as an app on the Android platform and deploy it on off-the shelf smartphones. Experimental results demonstrate that Team-Phone can properly fulfil the communication requirements and greatly facilitate rescue operations.

### II. RELATED WORKS

DESIGN AND IMPLEMENTATION OF MICROCONTROLLER BASED SHORT MESSAGE SERVICE CONTROL SYSTEM BY NwankwoNonso Prince

This paper presents one of the emerging applications of the GSM technology. Ever since the invention of the mobile phone as well as SMS technology and the two-way messaging solutions it provides several creative solutions have evolved on how to apply this technology to revolutionize the standards of living and to solve other problems associated with manual control system.

-INTERNET OF THINGS: A DEFINITION & TAXONOMY BY Bruno Dorsemaine, Jean-Philippe Gaulier, Pascal Urien

The Internet of Things (IoT) has various fields of application including health care, resource management, asset tracking, etc. Depending on the use case, various technologies like RFID, Wireless Sensor Network (WSN) or Smart Objects can be used. With each of these comes a specific vision of what the IoT and connected objects are and – to our knowledge – there is no global picture of the IoT. The issue with this approach is that specific problems have been addressed before global ones: what if something has been missed? We propose a definition and taxonomy for connected objects and the IoT.

**-NOVEL PROTOCOL ENABLES DIY HOME AUTOMATION** by Salma Nasrin

Modern advances in electronics and communication technology have given rise to the development of several home automation technologies and systems. However, current home automation systems have several drawbacks including high cost and not being of a DIY nature. These issues have held back home automation and it is important to solve them. In this paper, we describe a new architecture for a home automation system which is built on novel network protocols. Firstly we discuss related works about existing home automation systems and their merits and demerits.

**III. SYSTEM ANALYSIS**

In the PROPOSED SYSTEM, ZIGBEE Device is connected with the device at all time while discovering neighbor. As an alternate, a Bluetooth device is also suggested for connection. MODIFICATION PROCESS:

The MODIFICATION part is our implementation. We deploy an Application to track the children. ZigBee device is connected with the android (Parent) and another is attached with the child. Parent can track the child continuously; if child is out the Parent’s range then notification is made to the parents automatically. Patient’s can share the device ID to the Social Networks. In & around people can also track the child if found in between. We implement Cloud Computing in this project. Once child is identified immediately location details are shared to the parents so that child is identified easily without mind bogging.

**ADVANTAGES:**

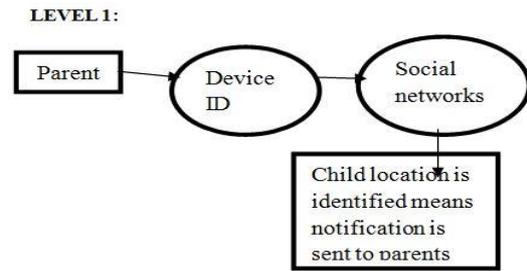
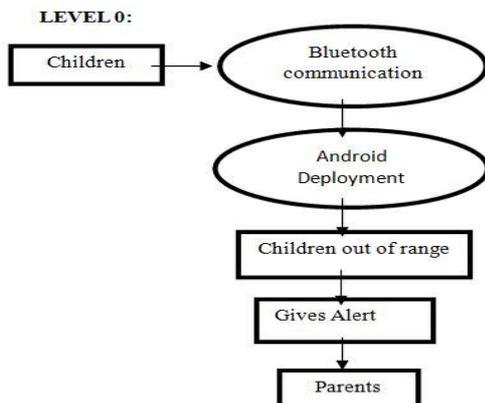
- High security
- Easily find the patient
- Less time consumption

**ARCHITECTURE DIAGRAM:**



Fig 1.1 System Architecture

**DATA FLOW DIAGRAM:**



**UML DIAGRAMS:**

UML is simply another graphical representation of a common semantic model. UML provides a comprehensive notation for the full lifecycle of object-oriented development.

**ADVANTAGES:**

- To represent complete systems (instead of only the software portion) using object oriented concepts
- To establish an explicit coupling between concepts and executable code
- To take into account the scaling factors that are inherent to complex and critical systems
- To creating a modeling language usable by both humans and machines
- UML defines several models for representing systems
- The class model captures the static structure
- The state model expresses the dynamic behavior of objects
- The use case model describes the requirements of the user
- The interaction model represents the scenarios and messages flows
- The implementation model shows the work units
- The deployment model provides details that pertain to process allocation

**SYSTEM SPECIFICATIONS**

This section describes the requirement analysis in accordance with the input and the resources and it also describes the implementation of the project with the technology used.

**REQUIREMENT ANALYSIS**

Requirement analysis determines the requirements of a new system. This project analyses on product and resource requirement, which is required for this successful system. The product requirement includes input and output requirements it gives the wants in term of input to produce the required output. The resource requirements give in brief about the software and hardware that are needed to achieve the required functionality.

**Hardware Environment**

The hardware requirements may serve as the basis for a contract for the implementation of the system and should therefore be a complete and consistent specification of the whole system. They are used by software engineers as the starting point for the system design. It shows what the systems do and not how it should be implemented.

- Hard disk: 120 GB
- Monitor : 15' color with vgi card support
- Ram : Minimum 256 MB
- Processor: Pentium iv and above (or) equivalent
- Processor speed : Minimum 500 MHZ

**Software Environment**

The software requirements are the specification of the system. It should include both a definition and a specification of requirements. It is a set of what the system should do rather than how it should do it. The software requirements provide a basis for creating the software requirements specification. It is useful in estimating cost, planning team activities, performing tasks and tracking the team's and tracking the team's progress throughout the development activity.

- Platform: Windows Xp/7/8
- Front End: Java-JDK1.7,Android-sdk and Eclipse, Apache tomcat
- Back End: MYSQL
- Embedded Kit

**BUSINESS BENEFITS:**

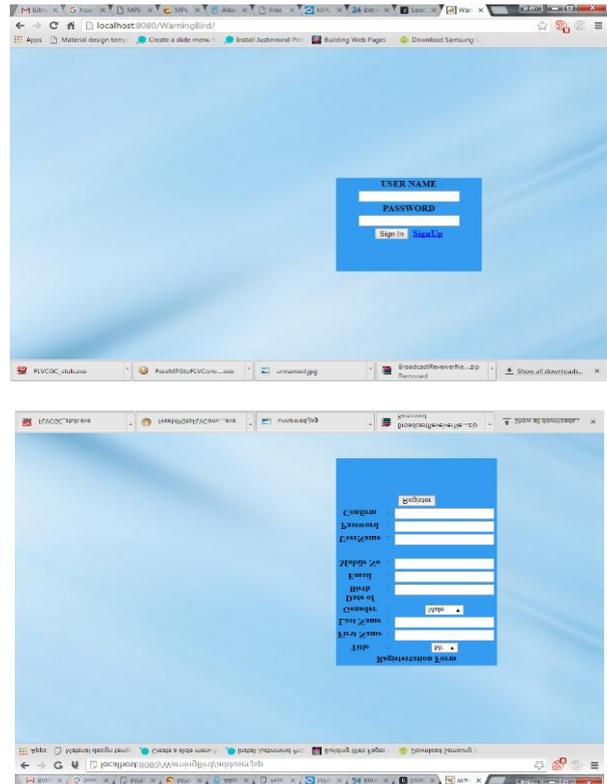
- A richer user experience - Whether you're using a Java technology-enabled mobile phone to play a game or to access your company's network, the Java platform provides the foundation for true mobility. The unique blend of mobility and security in Java technology makes it the ideal development and deployment vehicle for mobile and wireless solutions.
- The ideal execution environment for Web services - The Java and XML languages are the two most extensible and widely accepted computing languages on the planet, providing maximum reach to everyone, everywhere, every time, to every device and platform.
- Enabling business from end to end - Java offers a single, unifying programming model that can connect all elements of a business infrastructure.

**MODULES DESCRIPTION:**

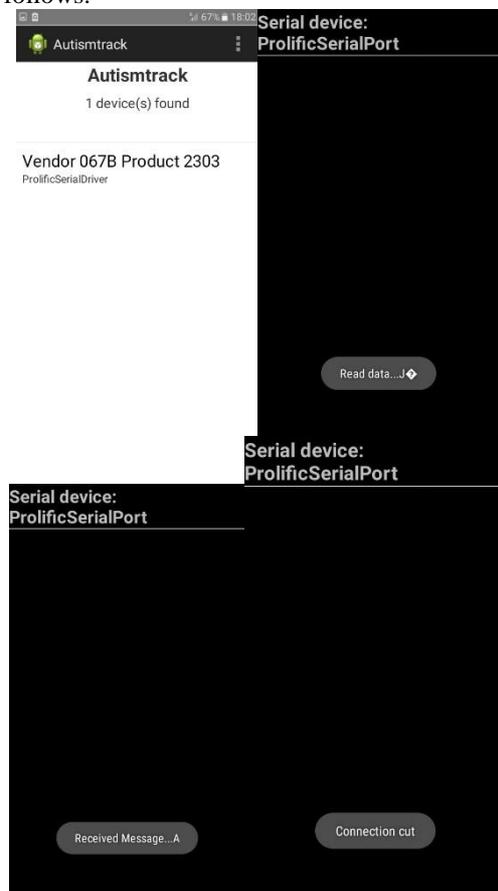
- Android deployment
- Embedded hardware fabrication
- Bluetooth tracking automatic alert
- Cloud server
- Bluetooth recognition communication
- Automatic location notification

**IV. RESULTS**

The source coding based on the prescribed modules are represented in the Appendices. These coding are designed for the process tracking and the source on social network media. The following are the result snapshots that how the process tracking is registered and works.



The serial port device detection on the android device will be like as follows.



## V. CONCLUSION

The results from the proposed model and the simulation results are very closely matched for any parameter values specified by the standard. In addition, the numerical results show that a reasonably good trade-off between discovery latency and energy consumption is achieved when the advertising interval is equal to the size of scan-window. However, this simple setting may not be always possible since the BLE devices can be in multiple modes and states simultaneously.

## REFERENCES

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