Legal Implication of Human and Physical-Activity Monitoring System Using Android Smartphone

DR.K.P.Kaliyamurthie[1], H.Ajmal Hasan[2], Abhishek Mishra[3]

HOD, Dept. of C.S.E., Bharath University, Chennai, Tamil Nadu, India[1].

Student, Dept of C.S.E, Bharath University, Chennai, Tamil Nadu, India[2].

Student, Dept of C.S.E Bharath University, Chennai, Tamil Nadu, India[3].

ABSTRACT: The Project is, primarily, computer code that enables superintendent to watch their human quality portable. All incoming and outgoing calls, texts and multimedia system messages is seen and interrupted by the superintendent, United Nations agency will even monitor where their human area unit (through GPS), access a history of wherever they have been and created hold on if their human area unit going outside of geographical zones, area unit receiving texts from unapproved numbers or calls from illegal persons.That good phone-enabled dead reckoning supports correct however native coordinates of users' trajectories, whereas GPS provides world however inconsistent coordinates. Considering them at the same time, the project device techniques to refine the world positioning results by fitting the worldwide positions to the structure of domestically measured ones, therefore the refined positioning results area unit a lot of seemingly to elicit the bottom truth. The project develop a paradigm system, named GloCal conduct comprehensive experiments in each thronged urban and spacious residential area areas.Our aim is to develop associate economical and improved geographical quality following answer and conserve valuable mobile resources by dynamically adapting the pursuit theme by suggests that of context-aware customized route learning techniques. this technique uses golem based mostly mobile phones for the computer code to be run. The alerts are hold on within the centralized server just like the details of incoming call, text and multimedia messages and conjointly the timely location update of their human. Superintendent could later login into the centralized server and appearance at the most points of their employee mobile usage

I. INTRODUCTION

The Project is, basically, software package that permits superintendent to watch their human quality cellular phone. All incoming and outgoing calls, texts and multimedia system messages is seen and interrupted by the superintendent, World Health Organization also can monitor wherever their human area unit (through GPS), access a history of wherever they have been and discovered keep if their human area unit going outside of geographical zones, area unit receiving texts from unapproved numbers or calls from illegal persons. That good phone-enabled dead reckoning supports correct however native coordinates of users' trajectories, whereas GPS provides international however inconsistent coordinates. Considering them at the same time, the project device techniques to refine the worldwide positioning results by fitting the worldwide positions to the structure of regionally measured ones, therefore the refined positioning results area unit a lot of probably to elicit the bottom truthcentralized server and think about the main points of their worker mobile usagelocation

II. RELATED WORK

Human mobility enhances System sent the every incoming/outgoing SMS and call, GPS location details are stored in a centralized server.In the tracking phase the mobile device's application developed in Android using the mobile phone In

this [1] been witnessed that Associate in Nursing exaggerated range of malicious automaton applications use LBS to get users' locations and transmit them to attackers while not users' acknowledgement, inflicting users' privacy breach. [2] international positioning system (GPS) has enabled variety of geographical applications over a few years. quite an heap of and human quality captured by mobile phones. [3] during this paper, the localization downside of Associate in Nursing autonomous remote-controlled aerial vehicle just in case of losing the GPS signal is handled. A vision-based resolution approach is planned consisting of 2 phases. within the 1st part a hybrid map is made. Such map consists of a group of reduced options obtained by information-theoretic analysis. this permits quicker UAV localization process while not degenerating the accuracy. during this [4] This paper presents a brand new, simple, economical and quicker GPS acquisition via sub-sampled quick Fourier rework (ssFFT) and thresholding. The planned algorithmic program exploits the recently, compared to standard FFT primarily based algorithms for any length of the planned ssFFT primarily based GPS acquisition computation time is eight.5571 times quicker than that typical FFT primarily based acquisition computation. A clean spike is created by thresholding the yelling signal. [5] Indoor localization becomes more and more vital as context-aware applications gain quality in mobile users. A promising approach WiFi infrastructure via fingerprinting-based reasoning. However, switch to the scanning mode introduces inevitable disruptions to digital communication of WiFi interface.

[6] a crucial tool for evaluating the health of patients who are suffering from mobility-affecting chronic diseases like MS, Parkinson's syndrome, and inherited disease is assessment of what quantity they walk. The user's solely needed interaction with the phone is popping it on and keeping it with him/her throughout the day, with the intention that it may well be used as his/her everyday itinerant.In this [7] several, if not all, smartphones area unit equipped with a robust detector set (GPS, WiFi, the acceleration detector, the orientation detector sadly, because the core enabler of most location chase applications on smartphones, GPS incurs associate unacceptable energy value which will cause the entire battery drain among a number of hours.,[8 The paper presents hardware style of self-balancing vehicle with integrated GPS chase system supported golem API (Application programming interface). XBee professional S2B module is employed in identification method of existing answer ((Gyroscope and Accelerometer) is recorded in information for analysis. [9] This paper presents the golem itinerant application developed so as to extended electronic communication vary of our wireless health monitor. the most scope is than mentioned golem itinerant application is capable to met net primarily based information transfer, chase and alerting needs.[10] This paper presents a occupation system for a mobile mechanism that tracks a user's location via a fusion of inaudible receivers and a world positioning system (GPS) for the measuring of short and long distances to the user, severally. The user holds the module with associate inaudible transmitter and a Galaxy Tab ten.1 put in with the golem package. The mobile mechanism is provided with 3 inaudible receivers, a GPS, Bluetooth communication

HUMAN AND PHYSICAL ACTIVITY MONITERING SYSTEM

GPS receiver fetches the GPS location, after calculating the exact location it further creates a GPRS packet which includes the along with the location details a unique identifier called International Mobile Equipment Identity (IMEI) number and timestamps details. Even though human can delete the call log and SMS details manually this System helps superintendent to monitor the incoming and outgoing call, text messages of their human mobile phone. As an effective and light-weight augmentation to global positioning, GloCal holds promise in real-world feasibility.

- Content of the message and log can be viewed by their superintendent , even though the human changes their Number.
- It provides a low cost human tracking system.
- Helps to find the GPS position of human.
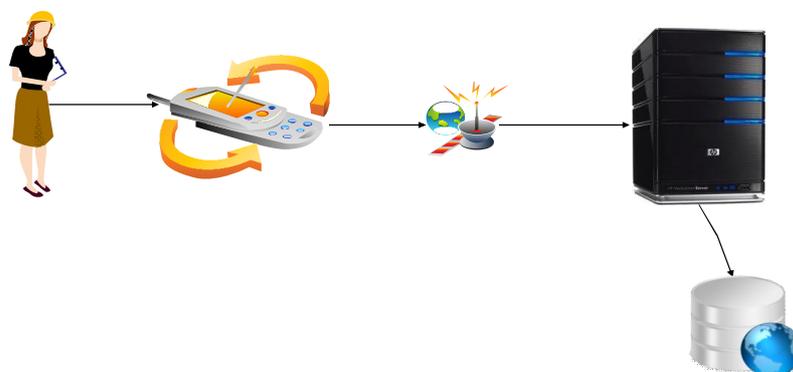
FIG: OVERALL ARCHITECTURE
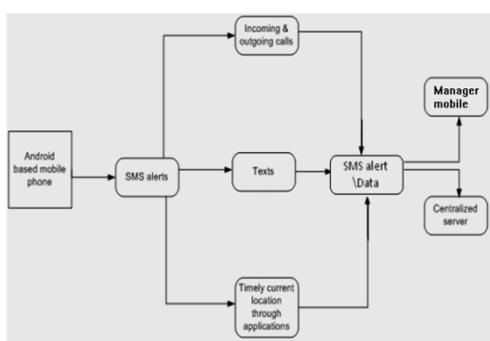
III. MODULE DESCRIPTION

There modules that are deployed with this project are

1. Monitoring and Alerting about Calls.
2. Monitoring and Alerting about SMS.
3. Monitoring and Alerting about current location of the Human (Through GPS).
4. Maintaining the details in the centralized server..

1. MONITORING AND ALERTING ABOUT CALLS

In this module, this system allows Superintendent to monitor their Human activities with the help of mobile phone incoming calls and outgoing calls. When there is call for Human mobile we will get receive an SMS alerts from the Human android based mobile device to the Superintendent and also send information to server.So that the Superintendent can take necessary steps to avoid the unnecessary activities happen for the Human. In that SMS it contains information about the person who has called or else for whom they called, and also the exact time call has been done.

2. MONITORING AND ALERTING ABOUT SMS

In this system, the Superintendent can monitor their Human cell phone incoming SMS and outgoing SMS activities by receiving SMS alerts from the Human android based mobile device. This it additionally sends the information about who are all sending and receiving SMS and also the time which has been sent and received and the content which has been transferred among them. Here the Superintendent can have more clear decision in order to take necessary steps to avoid the Human unnecessary activities.

3. MONITERING AND ALERTING ABOUT CURRENT LOCATION

In this module we are specially designed to track the current location of human through GPS and Network Provider. So that the parents can also monitor the human where ever they have traveled and also the current position they are available.It will track the location continuously based on fixed interval algorithm and that information is send it to server.

4. MAINTAINING THE DETAILS IN THE CENTRALIZED SERVER

In this, for our convenience we are maintaining a centralized server in order to store the information about the human mobile activities like incoming calls and outgoing calls, incoming SMS and outgoing SMS and also the current location of human through GPS and network provider. So that the parents can later access the centralized server to know about the information about their human monitored activities.

ALGORITHM OR DESIGN SPECIFICATION:
Counting:

To extend area setting awareness, Quantum Dimension proposes to develop algorithms for Total negatron Count (TEC) estimates with uncertainty estimates which will be enforced in existing Defense GPS User instrumentation (UE). each the policeman estimates and therefore the associated uncertainty estimates area unit important to change fashionable area setting models to use the GPS policeman knowledge for supporting the specification and foretelling of ionospheric effects and impacts on Defense radio-based systems, as well as communication, navigation, police investigation and geolocation. Defense area setting missions most lack policeman wherever it's most needed: in operational warfighting theaters, and over oceans. In these areas, Defense vehicles, equipped with two-frequency GPS have the flexibility to estimate policeman.The algorithms are tested exploitation knowledge from industrial GPS receivers moreover as military Defense GPS receivers. Our innovations give vital advantage for Defense to be used in GPS UE to resolve these ionospheric effects and its impact on Defense communication, navigation, and geolocation solutions. BENEFIT: The GPS Receiver market is simply one side of the commercialisation potential for this answer and demonstrates the ever present nature of GPS info to the warfighter, commanders and decision-makers throughout Defense.Therearea unit a high variety of business and military applications which will leverage this improvement to PNT accuracy while not requiring replacement of existing equipment: on the far side Line of Sight applications, Black programs, guided munitions, country of origin Security/Coast Guard, industrial Fishing area unit some applications which will like our technology innovation.

Gps synchronization algorithm:(parity algorithm)
The user should perform error detection of the decoded navigation knowledge exploitation the parity algorithmic program equations provided .presents associate example flow chart that defines a method of convalescent knowledge (dn) and checking parity. The check bit D*30 is employed for convalescent data. The parity bits D*29 and D*30, beside the recovered raw data(dn) area unit modulo-2 additional in accordance with the equations showing in Table 2-14 for D25 . . . D30, which offer computed parity to match with transmitted parity D25 . . .D30.

Coordinate Transformation Algorithm:
A coordinate transformation algorithmic program is introduced to realize effective transformation between native and world arrangement, that is agnostic to the precise localization techniques used. In different words, given 2 teams of localization results with totally different accuracy, the algorithmic program is universally capable of rising the exactitude of the less correct one in its arrangement
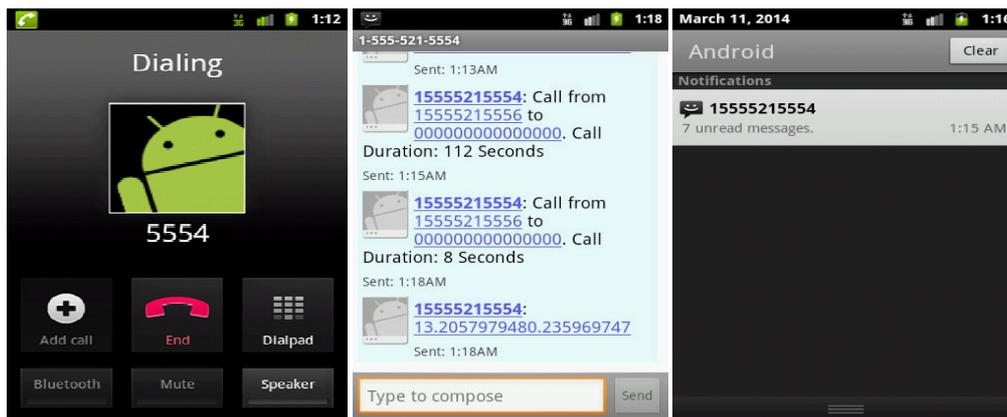
SCREENSHOT MONITORING AND ALERTING ABOUT CALLS

SCREENSHOT MONITORING AND ALERTING ABOUT SMS
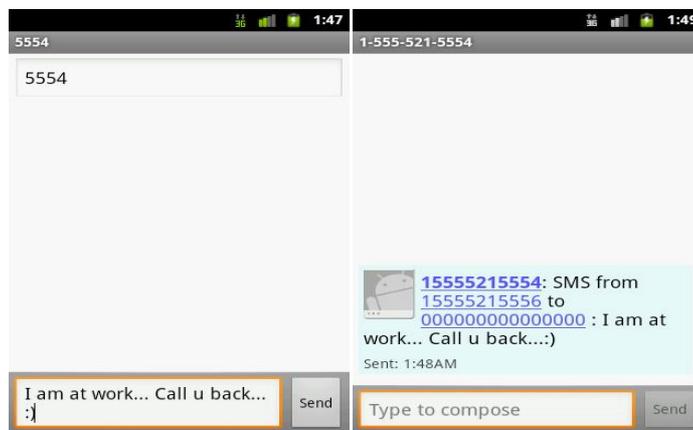
SCREENSHOTS OF MAINTAINING THE DETAILS IN THE CENTRALIZED SERVER
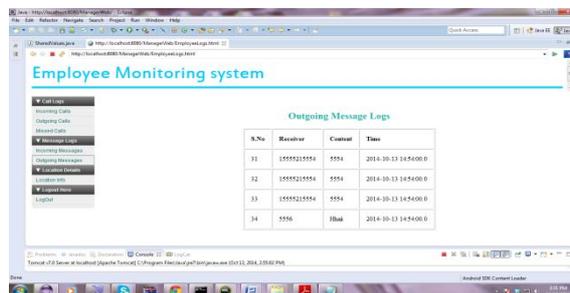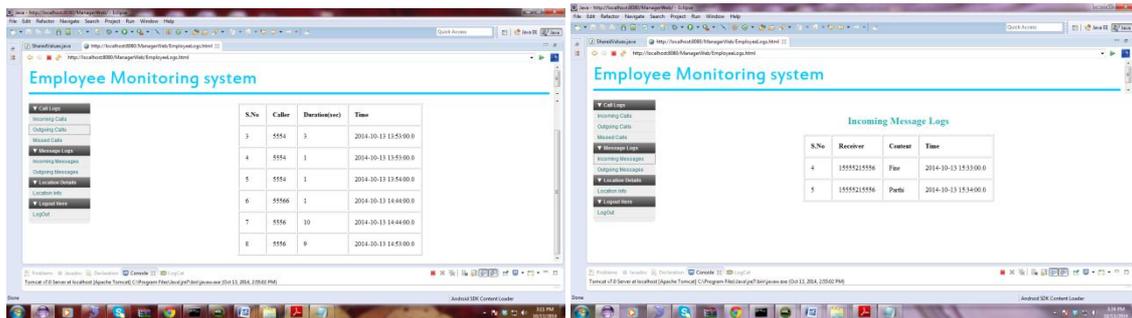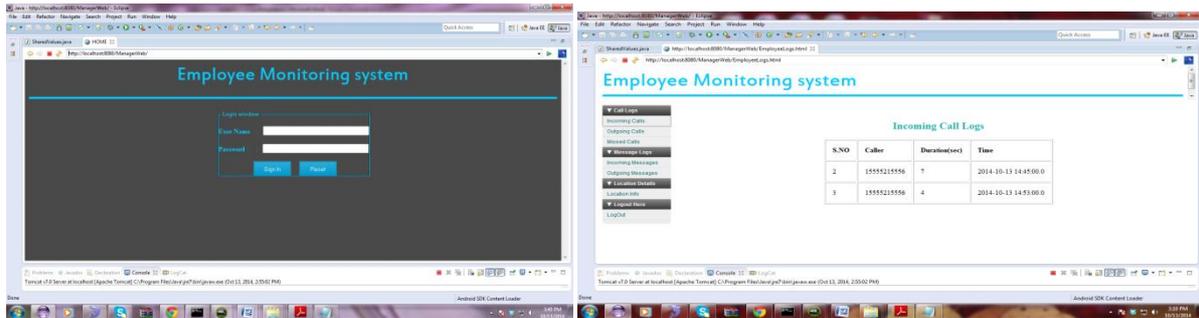
SCREENSHOTS ALERT ABOUT CURRENT LOCATION OF THE HUMAN
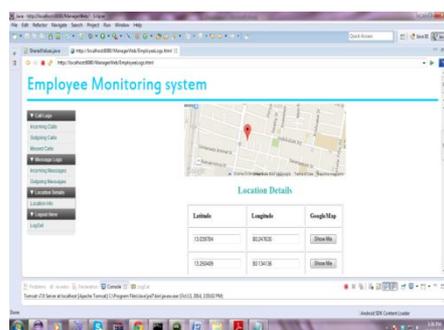
IV. CONCLUSION

This project is especially designed for a low cost human tracking system using GPRS GPS on GSM network. The combination of both the technologies i.e. GPS and GPRS provides a constant, continuous and real time human tracking system. The cost of the overall system has been reduced by two facts one is using the existing mobile phone and another is using GPRS. It has been hoped that the use of the overall system can eliminate the requirement of first the traditional GPS receivers and second costly SMS based tracking systems

REFERENCES

1.Siyuan Ma ; Zhushou Tang ; Qiuyu Xiao ; Jiafa Liu ; Tran Triet Duong ; Xiaodong Lin ; Haojin Zhu
"Detecting GPS information leakage in Android applications" Global Communications Conference (GLOBECOM), 2013 IEEE DOI: 10.1109/GLOCOM.2013.6831175

2.Chenshu Wu, Student Member, IEEE, Zheng Yang, Member, IEEE, Yu Xu, Member,"Human Mobility Enhances Global Positioning Accuracy for Mobile Phone Localization" IEEE, YiyangVOL.X 25 FEBRUARY 2014

3.Rady, S. ;Kandil, A.A. ; Badreddin, E. System Integration (SII),"A hybrid localization approach for UAV in GPS denied areas" DOI: 10.1109/SII.2011.6147631 Publication Year: 2011 , Page(s): 1269- 1274

4.Rao, M.V.G. ; Dept. of Electron. &Commun. Eng., KL Univ., Guntur, India ;Ratnam, D.V."Faster GPS/IRNSS acquisition via sub sampled fast Fourier transform (ssFFT) and thresholding"DOI: 10.1109/INDCON.2013.6726043 Publication Year: 2013 , Page(s): 1   - 4

5.YuhangGaoState Key Lab. of Virtual Reality Technol. & Syst., Beihang Univ., Beijing, China"Improving the Indoor Localization Accuracy for CPS by Reorganizing the Fingerprint Signatures"DOI: 10.1109/INFCOM.2013.6567105 Publication Year: 2013 , Page(s): 2940- 2948

6.Ryder, J. Center for Embedded Networked Sensing, UCLA, Los Angeles, CA, USA Longstaff, B. ; Reddy, S. ; Estrin, D."Ambulation: a tool for monitoring mobility patterns over time using mobile phones"
Volume: 4.DOI: 10.1109/CSE.2009.312 Publication Year: 2009 , Page(s): 927- 931

7.Lei Zhang Sch. of Comput. Sci., Simon Fraser Univ., Burnaby, BC, Canada JiangchuanLiu ;Hongbo Jiang ; Yong Guan"SensTrack: Energy-Efficient Location Tracking With Smartphone Sensors"Volume:13, Issue: 10.DOI: 10.1109/JSEN.2013.2274074 Publication Year: 2013 , Page(s): 3775- 3784