

VISHWAKARMA INSTITUTE OF INFORMATION TECHNOLOGY, PUNE

COMPUTER ENGINEERING DEPARTMENT

APRIL-MAY 2018

Synopsis



Group number:

Group Members :

1. Prathamesh Jinralkar
2. Komal Chaudhari
3. Sammren Bagwan
4. Balika Aher

Email-ID :

1. pjinralkar@gmail.com
2. ikomalchaudhari@gmail.com
3. samrin.a.bagwan@gmail.com
4. balikaaher97@gmail.com

Mobile no : 1. Prathamesh Jinralkar : 9763301229

2. Komal Chaudhari :9604677975

3 Sammren Bagwan :9921573232

4. Balika Aher :9527170570

Title :GPS Assisted Location Based Services for Smart City with Cloud Integration

Objective : To implement Location Tracking and storing huge amount of Traffic related data that will provide functionality for solving problems such as managing and analyzing data.To provide common communication platform for interaction between related application.

Abstract :

Mobile technology and information technology are the trending sources which plays an important role in communication and is integral part of our life. The potential ability of Global Positioning System (GPS) to assist navigating and tracking application facilitates in determining precise object positioning on earth.In order to efficiently execute tracking operation, GPS is dependent on various parameters viz. reliability of RF communication link, satellite geometry, GPS antenna placement, parameters to decode

NMEA (National Marine Electronics Association) format that the GPS receiver obtains etc. All the information gathered is then analyzed to accurately track the object in real time. This paper deals with the comprehensive study of GPS space segment and Control segment. Initially, the specification of GPS service known as Standard Positioning Service (SPS) ranging signal characteristics is introduced. Further, a detailed overview of GPS navigation message format, satellite tracking and selection process, frequency planning, C/A code generation and timing is studied and illustrated. Also, the user end implementations of location measurement processing algorithms are discussed. Hence, all the location information is used along with survey maps and object control actuators to support navigation. Furthermore, paper briefly describes the implementation of the real time position tracking system.

1. Introduction :

To implement Location Tracking and storing huge amount of Traffic related data that will provide functionality for solving problems such as managing and analyzing data. To provide common communication platform for interaction between related application. We try to develop application which handling record of crime and describe its crime in detail efficiently. From this application police department get help for caught criminals which breaks rules of driving from different location through they can be to track criminals at time of facing problems of communication in investigation process this application help to police department for catching criminals and from this application any surveyor whose break rule on him apply charge is easy.

2. Technical Details :

AREA OF PROJECT:

This application will help the police department to catch criminals those who violate the traffic rules from different location and they can be use it to track criminals. This application will facilitate a better communication between them so that it can be easier for them to catch the criminals and will also help them in their investigation. This application will help the police to access the data and the records of the criminals who are breaking the laws and levy charges. This application will reduce a lot of time of the police which will not only help fast retrieval of data but also analyze the data and produce results.

TECHNICAL KEYWORDS:

1. USER INTERFACE

- i. Global Positioning System(GPS)

- ii. Graphical user interfaces (GUI)
- iii. Input devices and strategies
- iv. Location Based Services(LBS)

3. Working :

SDLC Processes regarding to the Project:- 1) Planning: - We started the plan for domain selection point. Found two Domains Data Mining and Networking.

2) Requirement Gathering: - Gathering of information for the two domains was successful. Data mining was easy for implementation , while Networking had a great aspect, but was difficult for implementation process. Hence the team decided to choose Data Mining.

3) Scheduling: -The project we selected is related to managing and handling the Traffic record. We use Location Based Services for tracking the location of the surveyor.

4) Designing: - The designing of GUI and hardware parts was important, also completion of project report and paper publishing was processed in this sector.

5) Implementation: -The rst half was designed as Phase Implementation.(Module 1) .While the later consisted of Phase II and final implementation process .

6) Testing: - Check whether system gives sorted list and produce graph according to survey.

7) Deployment: - Creation of .exe le and publishing it is the main part of deployment process.

4. Applications:

- Advanced admin control
- 24/7 live support
- Large storage
- Easy data migration
- Report Generation
- Common Communication platform

References/Bibliography:

[1] Afshan Mulla,Jaypal Baviskar GPS Assisted Standard Positioning Service for Navigation and Tracking, 2015 International Conference on Pervasive Computing (ICPC).

[2] William Akotam Agangiba, Millicent Akotam Agangiba, Mobile solution for Metropolitan Crime Detection and Reporting, Journal of Emerging Trends in Computing and

Information sciences, Vol-4, No- 12, 2013, 2079-8407.

[3] VicPD, Report Crime, Tack Crime, Fight Crime, From your pocket, available at: <https://www.vicpd.ca/mobile> [Accessed: 29/10/2013].

[4] Manav Singhal, Anupam Shukla, Implementation of location based services in An- droid using GPS and Web Services,(IJCSI) International Journal of Computer Science Issues, Vol-9, Issue 1, No- 2, January 2012, 1694-0814.

[5] M. A. Al Rashed, Ousmane Abdoulaye Oumar, Damanjit Singh, A real time GSM/GPS based tracking system based on GSM mobile phone, 978-1-4799-2975-7/13/31.002013IEEE

[6] Evan Nelson , Charles Creusere, Eric Butcher, Determining Position Around an Asteroid Using Communication Relays and Trilateration, 978-1-4799-5380-6/15/31 : 002015IEEE.

[7] Di Chen, Peng Zhang, Chengchen Hu, Huanzhao Wang, Private and Precise Range Search for Location Based Services, 978-1-4673-6432-4/15/31.002015IEEE.

[8] Baviskar, J.J.; Mulla, A.Y.; Pandit, S.K.; Naik, R.D.; Baviskar, A.J, GPS Based Real time Emergency Aid System with Analysis of Latency in Satellite Communication, Communication Systems and Network Technologies (CSNT), 2013 International Confer- ence on , vol, no, 7-9 April 2014 .

TSSM's BSCOER Dept. of Computer Engineering 2016-17 51

[9] Y. Musa, J. Wang, Vehicle Tracking and Anti-theft System using GPS- GSM, International Journal of Engineering Research Technology (IJERT) Vol- 1 Issue 10, December- 2012 .

[10] W. S. Murphy, Determination of a position using ap- proximate distance and trilateration, Masters thesis, Colorado School of Mines, 2007.

