Campus Guiding With Voice Output

Omkar Dike[1], Lalit Bagale[2], Sonal Khambe[3], Shubham Vichare[4]
Department of IT
[1] Professor, FAMT, Ratnagiri,Mumbai University
[2, 3, 4] Student, FAMT, Ratnagiri,Mumbai University

Abstract-This project is aimed at implementation of static indoor floor lay outing and direction mapping. This project aims at the designing of an Android application which can help students and others navigate their way around campus including buildings, Departments and offices within the campus. An Android application is proposed to achieve the purpose. It provides result in voice format and navigate user.

Keywords-Campus Map, Java Applet, Location based, voice Recognition Technology

I. INTRODUCTION

Campus floor voice guide is a proposed solution for the vast navigation purposed of the campus. In that case the chance of new students of being lost and not being able to easily locate whenever he/she wants to travel within is so much of a possibility.

Hence this system is coined that can aid a person to navigate easily from a point to whenever he/she wishes to go. This system is helpful for the user to easy travel indoors, can save time, proper direction is voice overhead for the person.

Before one gets familiar to the campus the guidance is a welcome tool for advantageous indoor navigation. As the part of this application we develop a supporting mobility information aggregation infrastructure, further referred to as an intelligence service.

This android application can help a user to go particular location and will guide to find perfect location easily and also gives voice output to guide user.

This application directs the user from his current location to the exact location he searches in the campus. It reduces the effort of the user .The user has to access this application through an android phone when he enters the premises of the campus and register prior to using the application. The user cannot use the application outside the campus area.

II. EXISTING SYSTEM AND BACKGROUND

There are some partiality similar applications also available for mapping or navigation within particular place. Recently apple also introduced floor mapping concept. A mobile indoor location-based GIS application is also available

System Architecture:


Fig. System Architecture
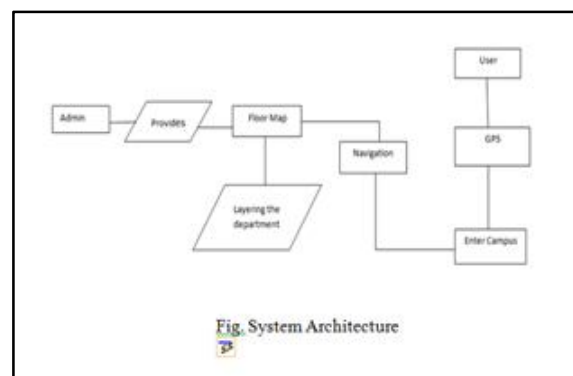
III. APPROACH

The Static Approach

The entire campus where the internal Mapping is to be conducted is added in the system. Distance in feet is fed in the system from one point to another.GPS Points are marked in the system with static positioning. Identifying the closest coordination system of the user. Matching his gps points with most proximity gpspoint available in the mapped floor. The map dictates a voice over to be positioned to which direction for best accuracy. User can enquire where he wants to travel from his gps identify position. Voice over is provided how many feet or step to travel to which position in order to reach. Incase stairs is needed to be taken that's mentioned with which direction to be turned after that. We Create Static Maps for Android will also display with pointers in the location of the user within the Campus's floor plan, and will update the location as the person moves with the help of connectivity which is undecided while creation (internet/Bluetooth/Wi-Fi). The application will even refresh the map when users move to different floors within a building. Maps will contain labels with departments, Labs, Offices among other items. Static map collaborated with the owners of the mapped venues in this first iteration of indoor maps. With respect to static based approach, the files don't have to be submitted in any specific

format. System will take blueprints, CAD drawings and even snapshots of floor plans. Obviously, the more detailed the floor plan, the better. Campus mapping for Android will work on devices with version 2.1 and higher of the mobile operating system. [1]

Flow Chart:

Fig. Flow Chart of proposed system
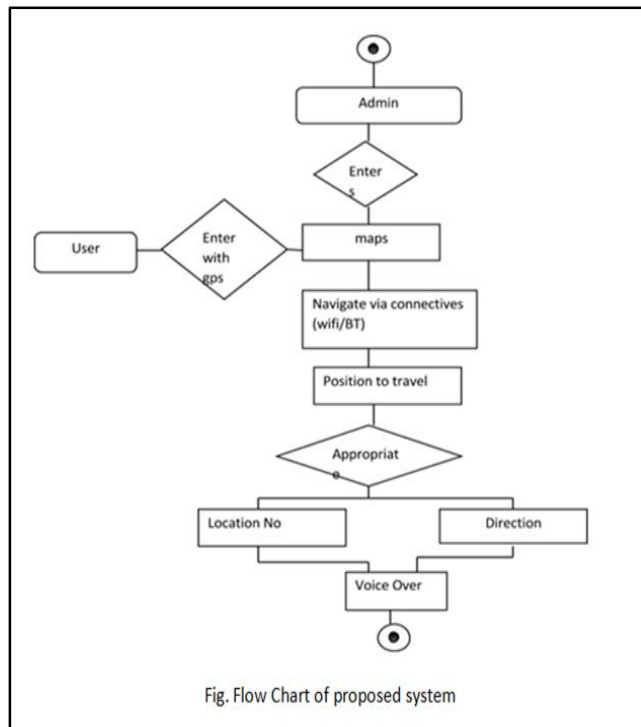
IV. THEORY AND METHODOLOGY

1. Locating GPS

Using the mobile device's last read location, the program can track whether the person is in the campus or not, if he is, the first hand approach will be to check his positioning which is available next.

Internal point access technology either or both, depending on the accurate device connectivity while implementation [3]

2.Wi-Fi-based positioning system (WPS)

Wi-Fi positioning system (WPS) is used where GPS is inadequate. RSS) .Typical parameters useful to geolocate the Wi-Fi hotspot or wireless access point include the SSID and the MAC address of the access point. The accuracy depends on the number of positions that can be entered into the database. The possible signal fluctuations that may be occur can increase errors and inaccuracies in the path of the user.

3. Bluetooth

According to the Bluetooth technology, the Bluetooth is all about proximity, not about exact location. Bluetooth is technology used for exchanging data over a small distance on fixed device [2]

ANDROID ADVANTAGE

Advantages of Android System [4]
- Time for change
- Save Time
- Android Scale to every device
- Open Source

V. CONCLUSION

Campus mapping can be an effectively used in a wide campus and buildings such as college, huge university; hospitals, etc.The shortest path feature or this application will be save time of user. Hence the strength of this application is easy to use navigation. Feature which is able to find paths on campus to user defined locations. Finding the destination location in campus is easy using this application. So the user save time and find the perfect location.

ACKNOWLEDGMENTS

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