International Journal of Psychosocial Rehabilitation, Vol. 23, Issue 03, 2019
ISSN: 1475-7192

Fisherman Boundary Detection Using Android

E. Kanniga and N. Seetharam

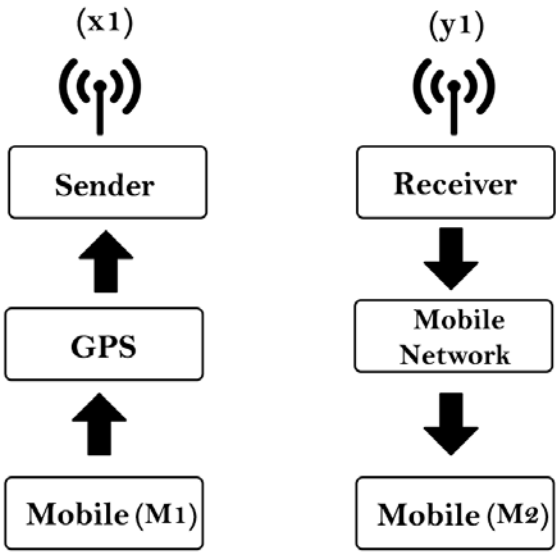
Abstract--- *Nowadays fishermen facing lot of problem, during fishing they may be crossed the boundary from their country. Due to miscommunication and misunderstanding, to avoid this in this project will provide the solution to protect from hazards, this android app is more helpful for them. Cost wise also too low. By using the GPS we can detect the boundary area.*

Keywords--- *Android Mobile, Google Map, GPS.*

I. INTRODUCTION

This project will protect the fisherman from hazard during fishing in sea preventing from arresting from other country military forces. With the help of GPS (Global Positioning System) we can get the current latitude and longitude that is our current location. Before that the boundary are is predicted and marked in the Google map if the fishermen cross the boundary line means alert sound is enable then message send to admin that is the person who you want to inform. So they can easily find where you.

Flow diagram



The input transmission having the android mobile (M1) with GPS to get the coordinates of latitude and longitude (x1, x2). This can be done by Geocoding have been already stored Google database. Through the mobile tower signal from the sender mobile, Then with primary number as admin number the address of the sender persons

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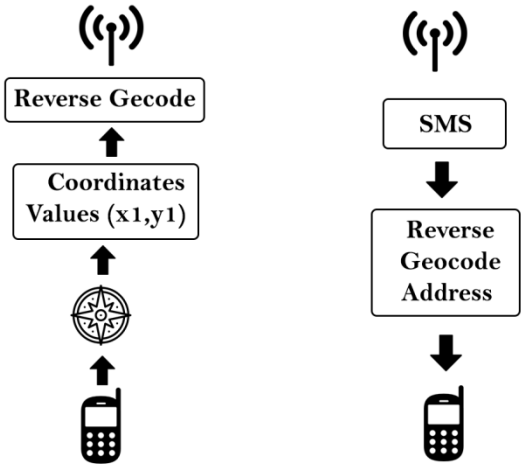
Received: 21 Feb 2019 | Revised: 12 Mar 2019 | Accepted: 06 Apr 2019

location with address is received at the receiver mobile this address conversion is done by reverse geocoding. Through SMS the address is received in android mobile (M2)

Architecture



The transmitter starts with android mobile with GPS. It is to retrieve the coordinates (x1, y1) as latitudes and longitudes from Google database. Nowadays GPS features are already installed in circuits in android mobiles in which accuracy is varied by their models and cost of mobiles. Reverse Geocoding is used to convert geological coordinates to location address by mobile network. The system can send the address to admin from transmitter. Then receiver retrieves the location address by mobile networks. That is reverse Geocoding address.

Android Mobiles & Versions

Android mobile used to get the latitude and longitude with the help of GPS. Android OS (Operating System) is developed by Google, with different versions

- Android 1.5: Cupcake. ...
- Android 1.6: Donut. ...
- Android 2.0 and 2.1: Eclair. ...
- Android 2.2: Froyo. ...
- Android 2.3, 2.4: Gingerbread. ...
- Android 3.0, 3.1, and 3.2: Honeycomb. ...
- Android 4.0: Ice Cream Sandwich.
- Android 4.4. KitKat.
- Android versions 5.0 and 5.1: Lollipop
- Android version 6.0: Marshmallow
- Android versions 7.0 and 7.1: Nougat
- Android version 8.0 and 8.1: Oreo

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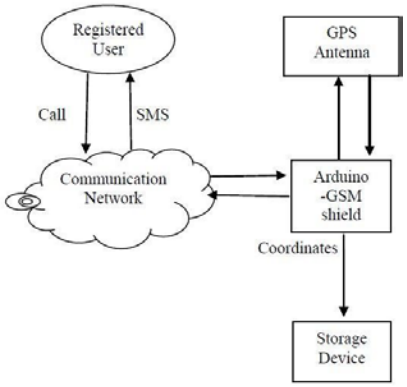
- Android version 9.0: Pie

GPS

The Global Positioning System (GPS), originally Navstar GPS,[1] is a satellite-based radio navigation system owned by the United States government and operated by the United States Air Force.[2] It is a global navigation satellite system that provides geolocationand time information to a GPS receiver anywhere on or near the Earth where there is an unobstructed line of sight to four or more GPS satellites.[3] Obstacles such as mountains and buildings block the relatively weak GPS signals.

The GPS does not require the user to transmit any data, and it operates independently of any telephonic or internet reception, though these technologies can enhance the usefulness of the GPS positioning information. The GPS provides critical positioning capabilities to military, civil, and commercial users around the world. The United States government created the system, maintains it, and makes it freely accessible to anyone with a GPS receiver.



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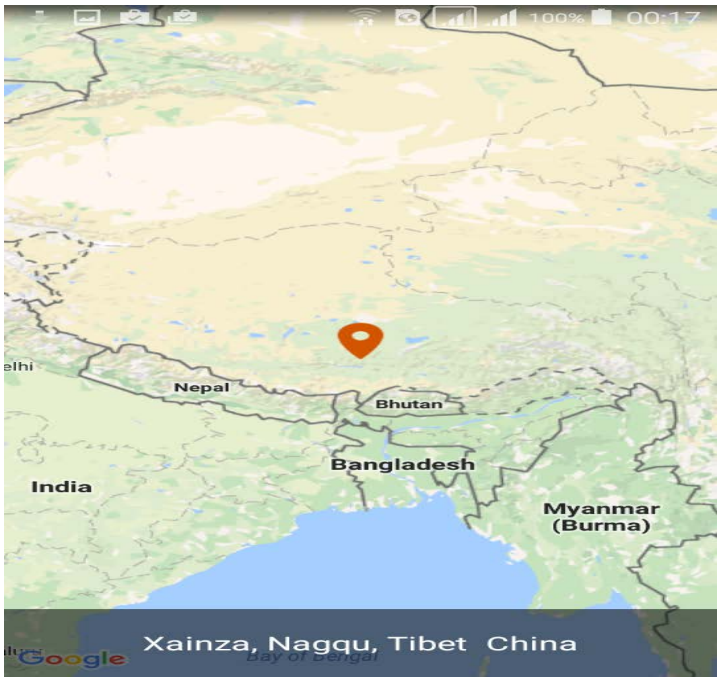
MAP and SMS

It is GUI (Graphical User Interface) is used to view the current location of the user, with current address. Then current address is send to the admin via SMS. ***S**hort **M**essage **S**ervice **(SMS)*** is the transmission of short text messages to and from a mobile phone, fax machine and/or IP address.



II. CONCLUSION

This project is used to prevent the fishermen from hazards during fishing. Even though we can design this by embedded systems, Its leads too cost , for reducing the cost and nowadays android mobiles are familiar to use by user so its ease to handle. But in least case mobile towers are getting weak at the middle of the sea. This problem will be rectified in the future project.

ACKNOWLEDGEMENT

This work is supported by the esteemed BIHER management and department of research and development Chennai and CEDSE excellence centre mentors and members

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Received: 21 Feb 2019 | Revised: 12 Mar 2019 | Accepted: 06 Apr 2019