DHITI: ABSTRACT
Emergency Responder

NAME OF COLLEGE:

Birla Institute of Technology and Science, Pilani Campus

NAME OF TEAM LEADER AND MEMBERS:

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AREA OF THE PROJECT:

Proposed Category: OPEN CATEGORY
IF not the proposed project can be placed in SAFETY category.

PROBLEM STATEMENT:

Proposed Category: NEW OPEN CATEGORY

OBJECTIVE:

To provide a cheap, simple and most efficient solution to the raging problem of high response time of first responders and rescue workers in case of medical, police or fire emergency.

SHORT DESCRIPTION:

(Not more than 100 words)

It provides a tool which facilitates the individual to get access to emergency response team in minimum time possible. Along with that it also makes it easier for the ERT and paramedics to locate the patient in cases where patient is at a remote location. We are also preparing a database on the server of all the doctors so that they also are informed about the location of individual based on proximity. In addition to helping out the primary target: paramedics, the app can also be developed further for use by other emergency services like police and fire. Extended features may include real-time audio and visual of the person in emergency along with GPS coordinates. Another possible extension could be a neighbourhood watch to instantly alert the neighbours of trouble in the area and ask them for a quicker response. This application has the potential to save lives with minimal manual intervention from the users end.

COST EFFECTIVENESS AND FEASIBILITY:

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IMPLEMENTATION METHODOLOGY:

We intend to exploit the huge computing power and easy accessibility of smartphones to solve the problem at hand. To extract the position of the user we use Geolocation API that tags their variable location using Google Maps API (in real time) and sends them onto a server. Based on the received location the server now locates the nearest emergency response teams and sends them a message (via Short Message Service to switch on their apps, showing real time the patients location and vice versa. We are also using Android Development Tool (ADT), a plug-in for Eclipse IDE written in JAVA. Also various Google/Bing API's and SDK for Android will be used.

BASIC EXPLANATION OF THE PROJECT:

First of all our project makes use of a triggering mechanism which indicates that the user is in an emergency. This mechanism should be a part of something which is already present with everyone just to avoid any new devices to carry upon. Mobiles phones being the best possible solution and android SDK can provide the application development platform. Just like we use the lower volume key 6 times in a mobile phone as a trigger to send the SOS message the same mechanism can be used here, the difference being that here this trigger would send the current location of the individual using the GPS technology onto the server in real time (continuously getting updated even if the user is travelling).

Next, an application software is needed on the receiving end i.e. with the doctors, police men etc.JAVA or any other programming language could be used to develop an application software which shows the current location of the individual who is in need of help on their laptop screens or their mobile phones. This location should come exactly as it is displayed on the mobile screen during navigation. This in a way would reduce the time lag which generally happens, and any individual could receive any kind of medical help in the shortest time possible as it might be possible that a doctor or a security guard was just at a distance of 5 min. from him.

TENTATIVE TIME LINE AND FEASIBILITY OF THE PROJECT:
Mostly the work needs to be done in designing the mobile interface which would take approx.4 days. After that we just have to integrate the data exchange between the server and the mobile interface which can be achieved in less than a week. The project stands feasible as it takes into account an already existing technology (Google Maps etc.) which just needs to be integrated in our project. Along with that the data exchange between the interface and the server would be in the form of location coordinates which and doing it with the above mentioned software is quite trivial.

SCOPE OF THE PROJECT:
The developed application could be used by anyone irrespective of his location, gender, age who is need of emergency and needs immediate assistance. The planned working interface is simple for anyone to adapt to without any need of technical assistance.