DISASTER ALERT AND RESCUE APPLICATION FOR BLIND PEOPLE BASED ON LOCATION USING ANDROID APP

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INTRODUCTION:

Disaster is a common phenomenon that shows its impact on the entire society. It has been experienced by them since time immemorial. It has been a great hindrance for the development of society across castes, communities and countries. Disaster management is a field that helps people how to react during an emergency and also how to rebound and come back from disasters. Earlier work involves a location based early disaster warning and evacuation system for both normal and blind people using Google Map. So, system consists of a third-party server named Disaster Management Server (DMS) and an android device on which application is installed and used.

OBJECTIVES:

The System is intended to function in case of emergencies in society. In the event of any disaster, an effective communication between the rescue agency and the victim is of prior concern. Disaster alerts are required for Earthquake, Floods, and Storm to individual, so that user can move to secure location suggested by our proposed application using message alert.

METHODOLOGY:

The first step is to register for the Application. Identification ID is assigned to user upon registration into our proposed application and will be stored in the internal storage of the mobile phone which will be used to send to server on request for rescue and suggestion for secure place. The details of user will be sent to evacuation control authority to keep track of the evacuation progress.

Next step is to communicate with the disaster alert. Our application gets the current position through user mobile phone and application communicates with server to send the latitude and longitude of user’s current position. Server finds the user in probable disaster affected areas. If user’s current location is in these areas, then first server returns the feedback message to the Mobile through Voice alert message to the user.

Next, suggestion should be provided for Evacuation based on Current location. The evacuation plan will be suggested to user based on current location. When the application finds its user in a disaster zone, it will give him a notification along with an audio message and vibration.

The last step involves the tracking Evacuation Progress and sending message to Government authorities. System recognizes the user is in any disaster area, the application starts another service to track the user so that the authority can rescue him from probable...
affected area. For this, the user is identified with Identifier Id in the application. The application uses detect the phone’s current position and sends this data to the server and to Government authorities for tracking the evacuation progress.

RESULT & CONCLUSION:

Development of an android application that helps the blind people to move away to safer locations by providing alerts in the form of vibrations or audio messages in the event of any disaster. It provides early disaster warnings to the people so that they can move to safer locations before they get into the disaster zone. The application helps the rescue team to track the current location of the victim based on the location shared by the server. The application provides information about multiple safer locations so that the victim can choose the location based on his comfort. Also, through this application, the government agency will get to know about the victims of the disaster so that they can send the rescue team to the location as early as possible.

FUTURE SCOPE:

- Precise Geofence tracking down to the last metre.
- Rescue Centre Navigation