**Project Proposal**

**Title of the Project: Robo Smart Secure System**

**Team ID:** 09

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**Project Goal and Objectives:**

**Motivation:**

Safety is an important measure of human sustainability. It would be essential to create an application which would favor location tracking. Remote locations need to be accessed primarily and accessibility to network should be reviewed. In case of any emergency, when the user is not within reach, an emergency procedure needs to be incorporated.

**Goal and Objectives:**

The important aspect of this application would be to promote security and safety, thereby incrementing an application interface which is user friendly. The integration of RoboMe and SmartWatch would guarantee the security of respective user, thereby eliminating situations which are dangerous. The main idea of our project is that our smart watch continuously keeps track of our location and we store the location data. We analyze the data and if we found any anomaly from the regular patterns, our robot sends a notification to smart watch. If user doesn’t sends a reply back, we can say that person is in danger. Robot based on the receiving location of person, it tries to analyze the emergency number near the user.

Here we continuously keep track of locations from the smartwatch and we analyze the locations of user by performing statistical analysis on Location details to know the anomaly of Location of the user and sends the emergency notification to smart watch to know whether user is in Emergency situation or not. If user allegedly responds to the notification saying that he is safe then we don’t carry our functionality and keeps on tracking the Location. If user doesn’t respond to the notification from the server then smart watch waits for a certain amount of time to respond and then Smartwatch sends back a message to Server that user is in emergency. Server communicates with the Robo and sends message to Robo that his owner is not safe. Robo receives the Last location and based on the location Robo will find the nearest emergency number and calls to the emergency number and responds to the questions from the emergency caller as if like a human being. In this way we can provide security to the user.

As a result of this, the RoboMe would be required to react in a manner as programmed. A certain protocol will include dialing an emergency number. It should be able to perform speech recognition and voice control. It may eliminate a timeframe in which people may be facing dire consequences.

Other enhancement to this project is that we analyze the data obtained and establishes a list of places which are frequented to by the user. From this analysis we can suggest the user favorite places specifically Restaurants, Bars, Motels, etc. This can be mainly designed to perform an iterative search pattern for travel and alleviate security of the user in a potential clock time frame. The most significant pattern that needs to be analyzed in this context would be to identify large sets of data collected and distributed across the user’s activity period.

**Significance:**

The term ‘Smart’ associated with both the SmartWatch and RoboMe is to render the device with protocols for autonomous interactivity and communication across the network. An impetus in Big Data Analytics can be gained by implementation of a secure line between the devices to implement the application of secure activity. It is primarily aimed at providing security and find the user’s favorite places to the user in remote locations and analyze data sets.

**System Features:**

1. Communication between Smart watch and RoboMe

2. Storing and analyzing the user’s location data.

3. Notifications to user about his favorite and frequently visited places.

4. RoboMe responding to the emergency situation and making a call to emergency contact.

**Backup Project:**

Physical movement should be able to intersect the relative intelligence of the device. Machine learning is an approach that can be considered here. Motion sensors will facilitate the linkage between RoboMe and SmartWatch. Any activity done in the skeletal hand will be reflected across the RoboMe and maintain a balanced environment in the communication sectors of the smart devices which will enhance the secure features. Pattern recognition in the case of any viable motion such as force should initiate the same protocol measures that are aimed to establish an increased level of security.

If the user shakes his hand in a particular pattern, the smart watch recognizes the pattern and sends to the server, the server communicates to Robo and sends the user location to Robo. Robo contacts the emergency numbers and responds to the questions from the caller.

**Bibliography:**

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