An Intelligent Safety System for Individual's Security

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Abstract:

In today's world, security is the major issue for an individual. Much harassment on women, elders and children are increasing day by day .In this project the system consists of a monitoring device, which gets activated when the device is tapped upon then a text message along with voice alert message is received by the respective emergency contacts. Further the person who receives the notifications can find and track the location without the interaction of the victim's application at each and every function.

Keywords: GPS (Global Positioning System); GSM (Global Systems for Mobile Communication); Voice Alert Message and Selfie Camera.

1. INTRODUCTION

India which considers it to be a promising super power and a monetary center point can accomplish its objective if and just if an extensive quantities of ladies take an interest in the advancement procedure. This paper exhibits an examination survey on the key need of knowledge security framework with innovation prerequisite and difficulties to fabricate the framework. Since the expectation of such occurrence is unrealistic consequently to limit the likelihood of physical savagery (burglary, rape and so on.) by keeping all the help instruments prepared to securely escape from fierce circumstance. This lessens chance and brings help when required. The person to person communication is the piece of our life and furthermore a hotspot for ladies badgering by transferring the hostile photo taken by shrouded cameras, despite the fact that these cases may occur with purity guys, in some such cases these folks end their life by submitting a suicide. The true representative of United Nation Ban Ki-Moon, expressed that "There is one well known fact appropriate to all nations, societies and groups: savagery against ladies is never worthy, never forgivable, and never decent". The report of WHO expresses that. "A viciousness demonstration against female sexual orientation exasperates the general wellbeing life of society and furthermore it disregards the human privileges of ladies". This paper continues as takes after. In Section 2 introduce the investigation of a few existing frameworks with its usefulness. In Section 3 displays the proposed demonstrate. Segment 4 examines the working of proposed model. In Section 5 talks about the Working of Prototype created. In area 6 the future extent of the proposed framework is talked about. Lastly in area 7 exhibit the conclusion of the project.

2. EXISTING SYSTEM

The paper [1] proposes a voice watchword perceiving application to perceive the client and enact the application usefulness notwithstanding when the versatile keypad bolted. The GPS module tracks the longitude and scope to follow a correct area of a client and sends the pre-put away crisis message including area to the enrolled contact numbers. The Sound Recording module begins the recording of the discussion for five minutes and put away as confirmations. The message goes in line if arrange issue and send when system gets accessible. A notice is produced for fruitful convey message. Additionally client can choose contact through voice based contact rundown and make a call. Take note of: The talked catchphrase changed over into content to contrast and the enrolled watchword. The paper [2] proposes a crisis reaction circumstance perceiving application called as IPROB to give ladies security even in the circumstance like fear monger assaults or cataclysmic event, by simply shaking the versatile over the predefined limit esteem consequently enact the framework. It begins catching the encompassing voice to test and affirm the dangerous IPROB circumstance where it raised the warning and client neglect to react in predefine time then the message caution sends to the enroll contacts. On the off chance that the versatile profile at the recipient is in noiseless mode then change over it into the General profile to give the voice notice as "YOUR Youngster IS Stuck in an unfortunate situation PLZ HELP...PLZ HELP … " consistently like a ring tone, until they stop it. On the off chance that an enlist contact affirms a PROB then suitable crisis administrations like emergency vehicle, fire unit are cautioned. In the event that an enlist contact reacts with a discernable warning, then it consequently associates and empowers the speakerphone at the casualty side.

A coordinated tri-hub accelerometer used to assess the one of kind developments that a telephone encounters as edge. The paper [3] proposes a SCIWARS application (Spy Camera Recognizable proof and Ladies Assault Save Framework) which comprise of two modules. A first module go about as a wise alarms framework which recognizes the infrared beams originating from consistently vision concealed cameras put in evolving rooms-lodgings room and so forth and furthermore educated the client about risky place through message. Presently it's the client duty whether to enlist a protest or not by sending the notice with the area to lawful experts, for example, Police. The second module will get enacted by squeezing any key constantly which will give the assistance to the casualty from physic assault in hazardous circumstance. It sends the crisis message containing area to enlist contacts. It likewise records the voice and catches the pictures of the encompassing for 45 seconds. This data likewise put away in

mystery area of portable for future proofs. This application likewise ready to changes over the collector portable profile from quiet to general mode, and furthermore bolsters the auto-call accepting framework at casualty side. The paper [4] proposes an android application to give security at two distinct circumstances as takes after. The Main module give security to Ladies at Crisis Circumstances propose a Spare Our Souls (SOS) application to gives the security on a solitary snap of SOS catch for the ladies going around evening time or alone. No compelling reason to open the screen, rather by simply squeezing the power catch it straightforwardly triggers the application to keep running at the foundation, to send the crisis message incorporating the area as scope and longitude to the enrolled contacts. The second module proposes an android based home security framework that gives security of house possessions and Senior National in the client nonattendance. Since the security of senior native is dependably a worry with expanding number of theft episodes. This application illuminates the client around an endeavour of interruption action at home through a message and an input SMS triggers a caution in the house. The base prerequisite is the android versatile, an equipment circuit inserted with a switch and GSM modem that are associated with the entryway. At the point when an interloper tries to open the entryway, the switch triggers a hinder for the microcontroller to initiate the GSM modem to send cautioning SMS to the store enrolled number in the modem. At the recipients end the application fly up the menu habitually for client consideration. On the off chance that the client neglects to recognize in the characterized time interim, then the programmed positive affirmation message get send to the remote GSM modem which thus intrude on the microcontroller for a caution. The paper [5] proposes an application, in which a solitary snap of SOS communicates something specific containing the area as well as sound video call to the gatekeeper number. At recipient touch the area URL in the message to view it in the Google Outline. It likewise gives distinctive help apparatuses like Emergency treatment help, Fake Call Help and video call.

The Fake call help to escape from the gatherings parties when ladies begin feeling awkward and believe that, "on the off chance that somebody calls me then I can leave this place". Fake call rings tone same as that of typical approaching call ring and once call acknowledged it quit ringing. It likewise underpins Fake Hang Up choice. The gatekeeper contacts are as a matter of course for this application, yet it ready to seek the cops, fire fighters, healing facilities contacts close-by to your area. It likewise sends the sound video recording by means of Email-Gmail of crisis circumstance taken by the client where client not able to talk or tell the conditions.
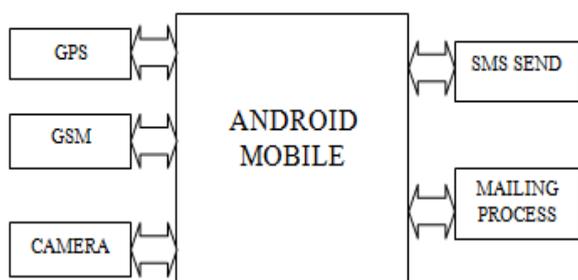
3.PROPOSED SYSTEM

3.1 PROPOSED MODEL

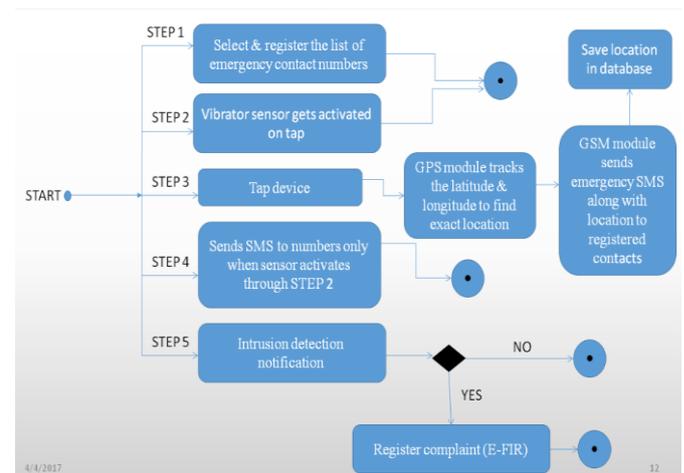**Figure.1. Proposed Model**

3.2 ACTIVITY DIAGRAM

Figure.2. Activity Diagram

4. WORKING OF PROPOSE MODEL

Based on the basic investigation and the necessity of wellbeing usefulness the modules are chosen as appeared in figure 1 and the work process called as movement outline as appeared in figure 2. The working of chose modules is as per the following:

Database Module: The client needs to enlist the crisis contact numbers with the framework which are put away in Register Contact Database. A voice watchword should be enrolling with the framework. It likewise store the notice created by different modules as a report of confirmations. It utilized shared preference database.

Global Positioning System (GPS) module: It is a route and exact situating apparatus, tracks the area as longitude and scope based. The GPS Coder Module utilized this data to look a correct address of that area as the road name, adjacent intersection and so forth. On the off chance that where GPS is crippled then the framework will just send the longitude and scope. Web is obligatory.

Algorithm for receiving location of victim and tracking:
Input   : GPS, GMAP.

Statement : The message is sent to the victim to find his
                  Location.

Output   : location in terms of latitude and longitude points.

STEP 1   :   the receiver has the options of to find location,
                  Tracking, registering the complaint, after
                  Receiving incoming message from victim.

STEP 2   :   Receiver can select the one of the above options
                  If body=location/track/complaint.

STEP 3   :   with the help of location manager the permission
                  to work with GPS hardware is obtained by
     get   System   Service(context,   LOCATION_SERVICE).

STEP 4   :   Location listener listens the movement of Gps
points and finds latitude and longitude
                  Location.getlattitude()
                  Location.getlongitude().

STEP 5: Then the sms is sent to JDT folder to find and locate the point *SendSMS(JDT App).*

STEP 6 : The graph is obtained with exact location of the victim, by the GMAP in JDT folder using MapMyIndia server.

STEP 7 : STEP 2 is repeated if the receiver wants to track the victim(if body=track).

STEP 8 : repeat STEP 3 to till STEP 5.

STEP 9 : The victim is tracked for every 2 min by using
(update My location(provider, time, Distance ,listener)

Update my location(provider,1,0,listener).

STEP 10 : Repeat step 3 to STEP 6.

GSM System Module: Global System for Mobile correspondence (GSM) SIM card is embedded inside the cell phone to send and get the messages utilizing GPRS. The GSM SIM card number is enlisted with the framework. With expanding utilization of GSM, system administrations are extended past discourse correspondence to consolidate numerous other custom applications, machine mechanization and machine to machine correspondence.

Algorithm to send the message:
Input : Vibrator Sensor.

Statement: when the sensors observes the vibration for 2 sec, then the message sent to guardian.

Output : Message is sent to guardian.

STEP 1 : If Vibrator Sensor Tapped for 2sec.

STEP 2 : Get permission from SMS Manager to send message to numbers.

STEP 3 : Access the phone numbers, messages stored in shared performance class.

STEP 4: Then finally send the message *(sms. send Text Msg (Dest No, s ervicecenter, text, intent ,intent))*

STEP 5 : Stop.

Algorithm for receiving the message:
Input : Message from the by victim side.

Statement: Message is received to Guardian receiver from broadcast receiver.

Output : Further actions are taken up by guardian.

STEP 1 : Message is received by receiver from the broadcast receiver *On Recieve (context, intent).*

STEP 2 : Then the object called bundle msg is stored.

STEP 3 : Number from which the msg has arrived is founded by *getoriginating _Addr().*

STEP 4 : msg/txt is obtained by*, get Msg Body().*

STEP 5 : Stop.

Activity in the wake of getting the Handler Notification:
The warning is acknowledged (by squeezing YES) or rejected (by squeezing NO). If there should be an occurrence of acknowledgment of spy camera notice a grievance is enlist by sending the warning to lawful specialist, for example, Police.

Sensor manager module: A sensor is a gadget that measures a physical amount and changes over it into a flag which can be perused by an onlooker or by an instrument. In our venture we utilize accelerometer which is inserted in phones.

Voice alert message module: On tapping framework gets actuated, which sends the message including the client area to the enrolled contacts. At the collector side, voice ready message is produced when watchman's telephone is in quiet mode.

Algorithm for pre-recorded voice msg to receiver:
Input : SD Card, message.

Statement: The voice message stored in JDT folder of SD card in the form of voice.mp3.

Output : pre recorded voice message.

STEP1 : The msg/txt obtained from the message algorithm is stored in one variable *body = get Msg Body().*

STEP 2 : if body= problem.

STEP 3 : The path of the voice msg is passed using data source *mp.set Data Source(File Path).*

STEP 4 : Then the pre-recorded voice msg is played until the guardian responds to it from media player.

STEP 5 : Stop.

Intrusion Identification module: The base necessity is the android cell phone, an equipment circuit and GSM modem implanted ought to be introduced. When the interloper tries to hurt the casualty, the casualty taps the gadget thrice so that GSM modem is activated to transmit a notice SMS to the enrolled number put away in the modem

Approach 100 or other Crisis number module: An approach 100 itself enroll the grievance consequently all instances of badgering ought to be enlisted on 100 as a proof of protest enlistment which authorize the police to perform important activity.

Algorithm for registering complaint to police station:
Input : Police station no, EFIR.

Statement : The complaint is registered to nearby police station i.e., the surrounding of victim.

Output : Complaint with the features of victim.

STEP 1 : body=complaint, the send complaint msg to the JDT app on victim side.

STEP 2 : The location of the victim is traced and location is sent the guardian.

STEP 3 : Now the guardian can search for the nearest Police station
(http://google +nearby search,radius+policesation name).

STEP 4 : The list of police station is obtained to guardian by JSON.

STEP 5 : The guardian selects the station and registers the complaint along with features of the victim.

STEP 6 : Stop.

5. RESULT

The proposed framework can be executed as an android application or utilizing Arduino based board. The proposed framework gives all required usefulness and there is no compelling reason to purchase and introduce distinctive applications that have diverse usefulness. Henceforth the cost gets limited and in addition the memory necessity by the framework is less contrasted with having numerous applications. The working of the framework is as per the following:

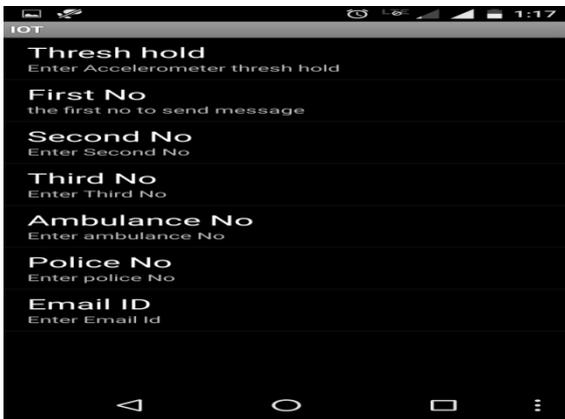Figure.3. First screen of victim's side application.

Figure.4. List of emergency contacts, email id and threshold value on the second screen of victim's application.
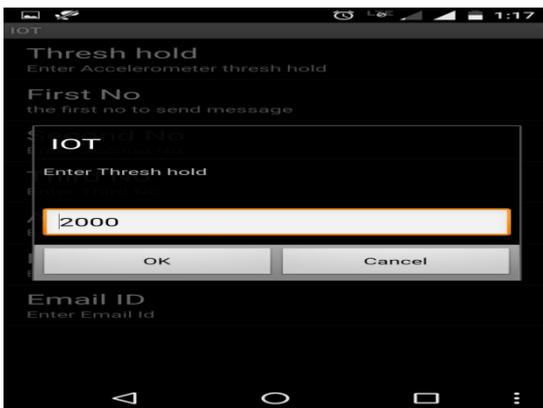

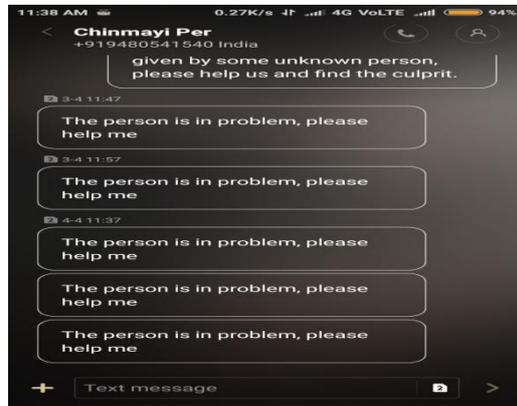Figure.5. Threshold value to be entered by the victim.

Figure.6. When victim taps the device when problem occurs then the message is sent automatically through GSM to the respective guardian.
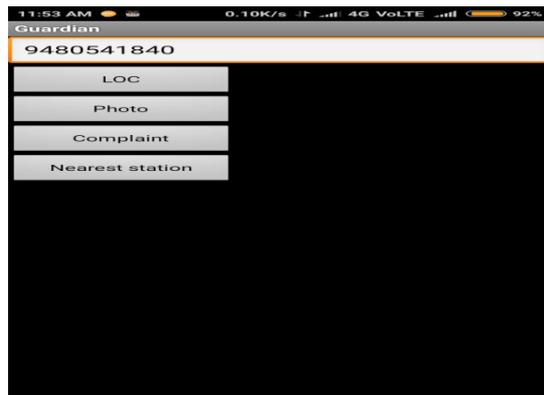

Figure.7. After the guardian receive the message then he/she will be having an option as shown below in the figure to carry out further process.
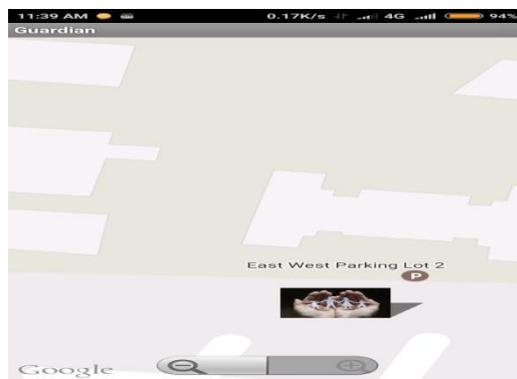

Figure.8. When the guardian selects the LOC then the message is transferred to victim's phone to find the exact location.

Figure.9. If the guardian wants to track the location of victim then he depresses the track button in his app, so that the location of victim is obtained to guardian in terms of latitude and longitude points.

Figure.10. The guardian gets the list of police station by entering the latitude and longitude points of victim.

6. FUTURE SCOPE

As the mechanical changes or new prerequisite from client to improve the usefulness of item may requires new form to present. In spite of the fact that the Framework is finished and working effectively, new modules which improve the framework usefulness can be added with no real changes to the whole framework. Among the different modules few are distinguished, which couldn't be incorporated into the last augmentation because of time requirements. As the school kid's security is real attentiveness toward guardians and in addition school administration because of the current episodes of tyke violations like kids missing, manhandle and so forth. This module screens the tyke security when they are going in school transports. When they achieved the school the gadget gets deactivated by school expert and message send the guardians that, "the tyke achieves the school securely". At return travel again the gadget is actuated by school specialist and when they achieved the home, the recognize message is sent to the school when guardians deactivate the gadget. The gadget is fit for sound recording when initiated that can tune in by the guardians or approve individual. Portable and different resources Security Framework Module: The missing rate of mobiles is high while going from transport, prepare or crowed open territory. A little gadget expected to keep either in same pocket or inside the scope of couple of centimeters. As you kept the portable and neglect to get or somebody stolen it then de too little range the siren of versatile and also gadget gets ON for client consideration. Additionally a similar gadget can connect to our baggage, subsequently if there should arise an occurrence of neglecting to pick back or attempt to stolen by somebody can be effortlessly seen by the module and make the consideration of client through the siren caution. Thus, the propel innovation makes the framework more vigorous and solid. As the new modules give the usefulness which upgrade the wellbeing and security. Therefore it satisfies the motivation behind the venture.

7. CONCLUSION

The proposed systems consequently give security from catching the hostile photo or recordings. Somebody can utilize such recordings or photo to adventure about ones personality or to coerce to make a benefit from it. The propose framework gives the zone modules to gives the youngster security and observation. The constraint of the gadgets can be overcome by putting away the information onto the cloud. It is a littler and compact framework and it can't be recognized effectively as a specialized gadget that seems to be, just the client has the

learning about the framework, third individual won't know about it as a security framework. It can be effortlessly fit inside littler devices like watch. It can provide us nearby police stations(with in radius of 10kms) and also the list of hospitals present nearby, It can track the individual regardless of the possibility that they are in a less scope territory and also send voice alert message followed by text message. So this framework can be conveyed anyplace effortlessly and utilized at whatever time without much client collaboration and with best usefulness.

8. REFERENCES

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