

## Motivation

- Many death situations happens around the world everyday due to the delay of the hospital emergency team arrival to the scene.
- For that reason we want to minimize the number of death situations caused by that using a smart system which will detect the emergency situation as fast as possible.

## Research Objectives

- Design and create an emergency response system to be used by healthcare services.
- The purpose is to enable the user to call for medical help in case of an emergency, while minimizing the time taken to survey this call, as well as reducing the effort on the user's part using smart technologies.

## System Description

- The system consists of this part which is a smart and professional emergency application with the user interface that is designed to help the user location and the system.

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## Block Diagram

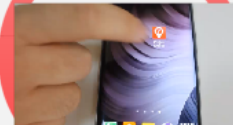


## Research Features

- Fast system response
- User-friendly interface
- Sending the patient location via WiFi or GPS
- User-friendly medicine reminder
- Tutorial for new users
- Application custom options (Phone number, sounds, etc)



## Research Video



## Conclusion

- The system is a smart application that will help the user to call for medical help in case of an emergency, while minimizing the time taken to survey this call, as well as reducing the effort on the user's part using smart technologies.

## Future Work

- The system is a smart application that will help the user to call for medical help in case of an emergency, while minimizing the time taken to survey this call, as well as reducing the effort on the user's part using smart technologies.

## Research Results

- The system was tested successfully to detect various emergency situations, and send the location to the nearest registered hospital in the database.

## Any Questions?

## Originality & Significance

- Emergency Situation Detection:
  - Shaking the smartphone
  - Pressing the volume button in the smartphone
  - Using the smart watch (Moto 360)
  - Using the technology of E-health bag, which will detect the status of the patients by measuring their life signs using sensors

# HEALTHCARE EMERGENCY RESPONSE SYSTEM

- **Done by:** Diao Abdelmoti, Omar Haider, Mohammed Noman & Wessam Ghassan
- **Supervised by:** Prof. Mustahsan Mir  
Ajman University of Science and Technology

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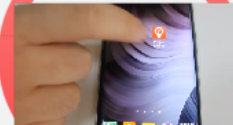


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## Conclusion

- The system was tested successfully to detect various emergency situations, and send the location to the nearest registered hospital in the database.

## Future Work

- Include more features to the system, such as sending the location to the nearest registered hospital in the database.

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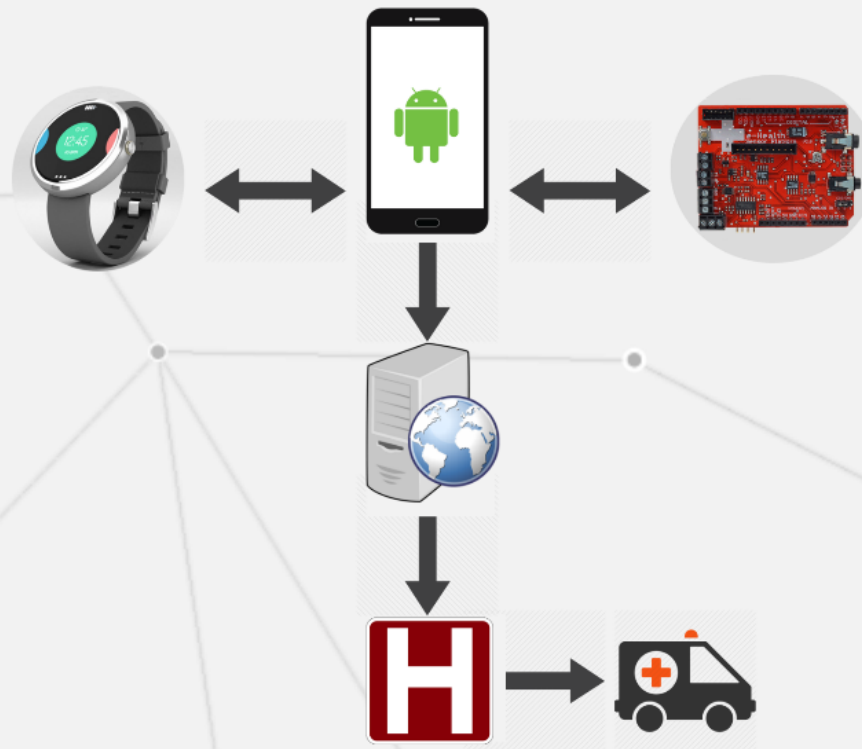
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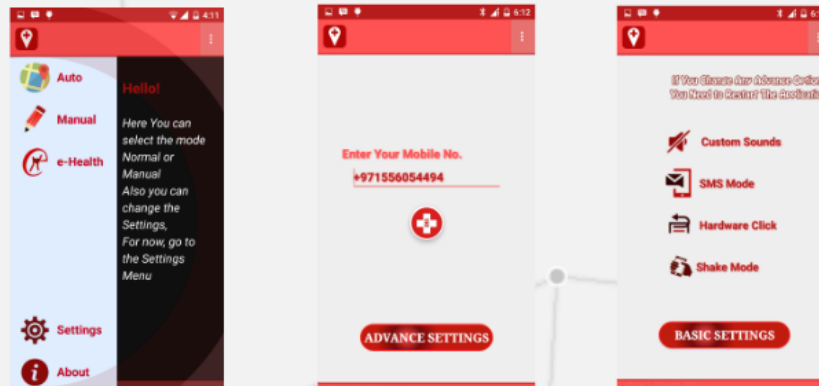
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# Block Diagram



# System Description

- The system consists of four parts; the first part is the Android-based smartphone application where the user will send the latitude and longitude of his/her location when he needs help.





# System Description

- The second part is the web server, where all the data of the patients are saved in database and the process of calculating the shortest root to the nearest registered hospital will be done.

The screenshot displays the ETEAM web application interface. At the top, there is a navigation bar with links: Home, Registration, Hospital1, Hospital2, and a user greeting: Welcome Administrator, Logout. The main content area is divided into two sections. The left section shows a map with a blue highlighted route. The right section lists eight routes with their details.

Mobile	Name	D.O.B	Gender	Height	Weight	Marital	E-contact	Address	Check	Item
9750333333	Abdullah	1990-05-25	M	180.0	75.0	S	9750333333	100 Street	2015-04-05	Burg

**Route: 1**  
Al Fahs Street - Abu Dhabi - United Arab Emirates to Sultan Bin Zayed the First Street - Abu Dhabi - United Arab Emirates  
3.8 km in 10 mins

**Route: 2**  
Fahs Street - Abu Dhabi - United Arab Emirates to Sultan Bin Zayed the First Street - Abu Dhabi - United Arab Emirates  
2.1 km in 5 mins

**Route: 3**  
5th Street - Dubai - United Arab Emirates to Sultan Bin Zayed the First Street - Abu Dhabi - United Arab Emirates  
149 km in 1 hour 31 mins

**Route: 4**  
Unnamed Road - Dubai - United Arab Emirates to Sultan Bin Zayed the First Street - Abu Dhabi - United Arab Emirates  
147 km in 1 hour 28 mins

**Route: 5**  
Unnamed Road - Sharjah - United Arab Emirates to Sultan Bin Zayed the First Street - Abu Dhabi - United Arab Emirates  
172 km in 1 hour 45 mins

**Route: 6**  
Hessa Street - Abu Dhabi - United Arab Emirates to Sultan Bin Zayed the First Street - Abu Dhabi - United Arab Emirates  
162 km in 1 hour 58 mins

**Route: 7**  
10th Street - Abu Dhabi - United Arab Emirates to Sultan Bin Zayed the First Street - Abu Dhabi - United Arab Emirates  
25.4 km in 27 mins

**Route: 8**  
Al Zahra Street - Sharjah - United Arab Emirates to Sultan Bin Zayed the First Street - Abu Dhabi - United Arab Emirates  
168 km in 1 hour 47 mins

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# System Description

- The third part is informing the nearest hospital the location of the patient and what he/she might have.

**ETEAM** Save lives on a click !

Home Patients Registration Welcome Hospital\_1, [logout!](#)

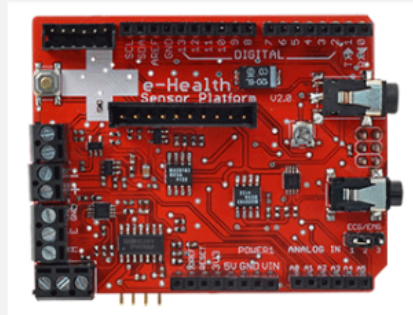
Mobile	Name	D.O.B	Gender	Height	Weight	Marital	E-contact	Address	Check	Illness Surg.	Allergies	Fam illness	Med.
+97503146667	Ahmad Ismail	1992-12-01	M	154.6	42.5	S	+97507656123	UAE Abu Dhabi Khalifa A city	2014-06-02	N/A	N/A	N/A	N/A
+97503215667	Nono	1981-05-28	F	100.0	36.0	S	+97503478526	UAE RAK	2015-01-29			Blood Pressure, Diabetes	
+97504568315	Sarah Walker	1989-06-04	F	158.6	52.7	M	+97506071234	UAE Dubai Business Bay	2015-04-12				
+97506584215	Omar Ali	1995-10-23	M	169.7	85.2	S	+97502348569	UAE Abu Dhabi Khalifa street	2015-02-01	N/A	N/A	N/A	N/A

© Emergency 2015



# System Description

- The fourth part is smart technologies that will help detecting the emergency situation such as:
  - Smart watch (Moto 360)
  - E-Health bag



# Research Video



# Research Features

- Fast system response
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- Sending the patient location via Wi-Fi or SMS
- User-friendly medicine reminder
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## Originality & Significance

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# Research Results

- The system was tested successfully to detect various emergency situations, and send the location to the nearest registered hospital in the database.

# Future Work

- Include more sensors to the E-Health technology to enhance the efficiency, speed and reliability in detecting emergency situations using this system.





# Conclusion

- The developed research has achieved all the pointed objectives. In addition, we introduced more reliable solution which can be used to enhance the system efficiency and reliability in real life.



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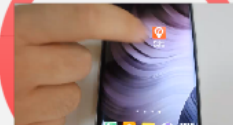


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