SMART CITY BUILD ON IOT

A Major Project Presentation

Internet of Things (IoT)

Introduction

What is IoT ?

- Hot research topic
- Word used by many and in different contexts
- IoT research at intersection of several domains: – Internet Computing, – Communications, – RFID, – Sensor Networking,
- No commonly accepted definition of the term ‘Internet of Thing

Can be used for...

Digital representation of real “things“ in the Internet

- State of real environments is available via sensors in real time – temperature, light, CO2 , movement, humidity, ...
- Via actuators, it is possible to influence the real world through actions in the digital world: – switches, traffic lights, displays.

COMPONENTS OF IoT

Embedded system + sensors and/or actuators + Radio interface = Wireless sensor node

- Many wireless sensor nodes = wireless sensor network
- Wireless sensor network + Internet connectivity = Internet of Things (IoT)

Smart City

Smart City Vision

- 50% of the world population lives in a city
- 2010-2050: Urban population will almost double
- Cities occupy 2% of the world's geography
- 17.4 % die annually in accidents in urban cities due to lack of emergency releaf or response.

SMART Cities

Smart cities can be identified along six main axes or dimensions:

- a smart economy
- smart mobility
- smart environment
- smart people and Safety
- smart living
- smart governance

Emergency Situations

- Any time any accident can occur so in order to decrease the casualty , focus is on Emergency Responses.
- For example, a fire that occurs near a oil reservoirs can seriously damage the facility and fataly injure the workers.

Continued

- Second Example, Fire or landslide in mine operations can cause serious casualty.
- Third Example, a simple yet dangerous car accident in a crowded street.

All these above examples require a swift and strong response in order to reduce the casualty .

EXISTING SYSTEM

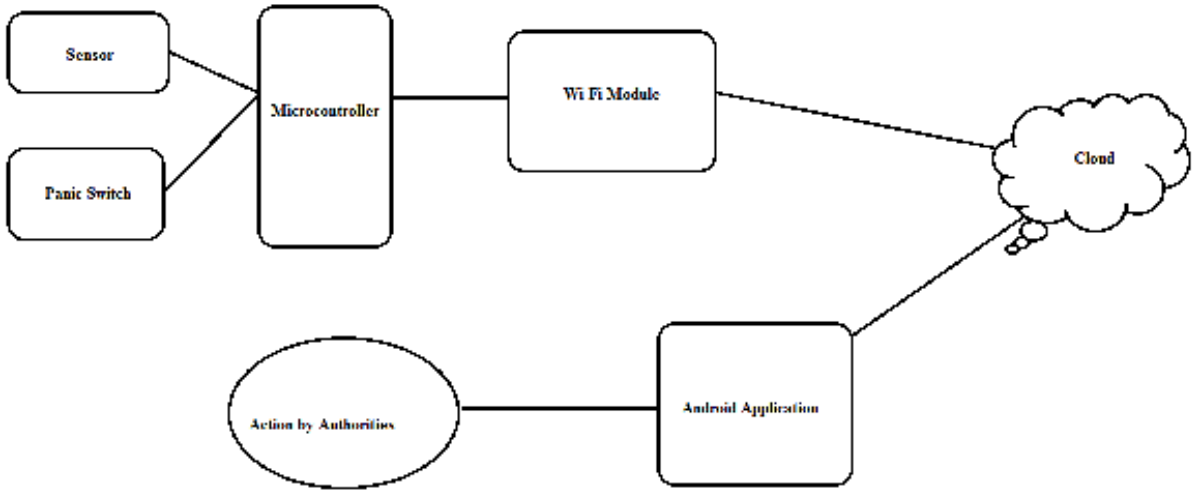
- Today if accidents occur more than 70% cases reveal that if the victim were to be given emergency medical attention they would have made it, which is where our system lack.
- Today in this smart phone era we have emergency helplines and apps but they take time to send their queries and receive help.

Existing Systems

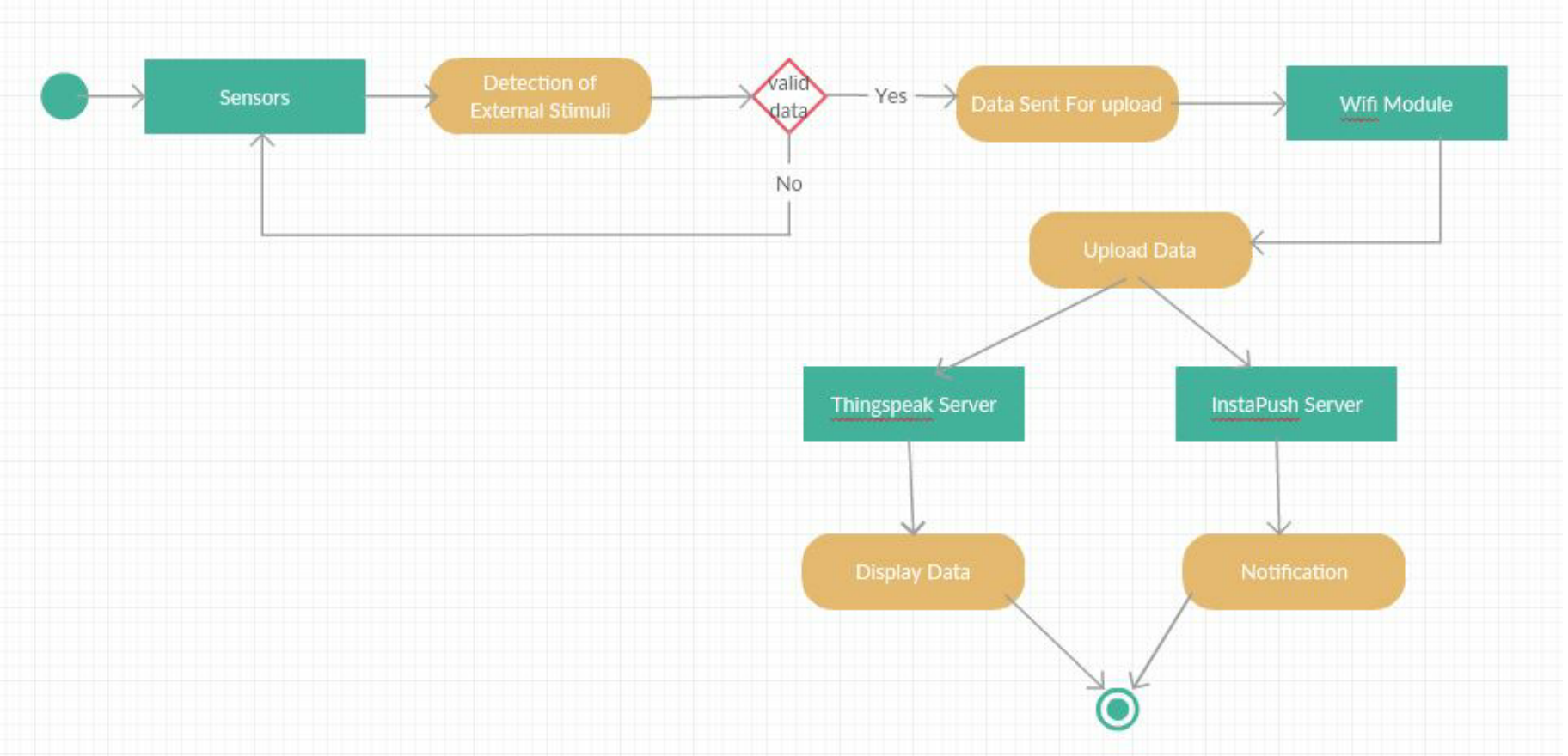
- There are existing systems but they are locally connected to raise alarm and evacuation managing.

Proposed System

- The image gives us a general idea but not accurate idea.



Actual System



Limitations

- WiFi connectivity required at all times.
- The main device should not be tampered with.
- Pre-setting of the software does not allow any extra modification.

Conclusion

- Emergency Protocols to be implemented seriously.
- An Emergency Response System for every possible situation.
- Fast relief to the victims and hazard control.
- This study is significant in outlining general information about IoT, such as definition, market size, and status of IoT, which has become a hot IT topic nowadays, and in presenting applicable IoT business models to help business entities and research institutes participating in related projects build a smart city as part of the future vision of local governments by reflecting the new information paradigm of IoT.

Future Scope

- With the help of GPS we can use this device in mobile state.
- Dedicating a cellular system to the project will help in removing WiFi dependancy.
- With more sophesticated sensors and better processors a lot of data can be handled and better response system can be created.