Patient Monitor

TEAM: Boltz

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Abstract

- In India many hospital patients are **dying** due to lack of continuous monitoring of the patients, at least there is a need of a **guardian** to stay with the patient. But guardian may not be more aware about results of medical instruments. To solve this here is our project with internet of things as **basement**, we are going to update the **results of patients** in hourly basis or four hour once based on his/her medical condition also we are going to **alert** the doctors in case of emergency.

Novelty 1

- **Time Saving**-Here we are going to update medical report in **cloud** so there is very less **paper work**(required take a printout).
- **Emergency alert -** In case of emergency there will be a **notification** to concerned doctor if he/she is not responding for next **2 minutes** then message will be sent to other doctors in hospital. If concerned doctor replied that he is **busy** with other patient then again the message will be sent.

Novelty 2

- Emergency (continued)-If doctor is said to be busy at a particular time or **absent** (doctors can set their status as available, busy, absent) for a particular time then they will not be notified with voice message but there will be silent a notification.
- In case of need of **excess oxygen or blood** the message will be sent to concerned department and to make resources available.

Technology

- There will be **hardware** integrated with ab **android app**.
- For demonstration **Arduino UNO R3** based model is used, for real life integration other microcontroller can be used. Design of PCB can be shown with **Autodesk EAGLE**.
- Here microcontroller is connected to ECG and ventilator.
- **The algorithm made such that results provided by ECG and ventilators are made as a report and sent to doctor undesired or unusual results notification sent to doctor**.

Business Implementation

- Hardware implementation may cost very less roughly around **5,000** INR, even if model is upgraded it may cost hardly **10,000** for a **single bed monitoring system** total amount can be calculated based on bed requirements.
- **Cloud** implementation is based on hospital decision to go with **open** cloud or **private** cloud platform. Based on the decision cost will change accordingly.