IJARSCT
ISSN (Online) 2581-9429
International Journal of Advanced Research in Science, Communication and Technology (IJARSCT)
International Open-Access, Double-Blind, Peer-Reviewed, Refereed, Multidisciplinary Online Journal
Impact Factor: 7.301
Volume 3, Issue4, May 2023

IoT-Based Smart ICU for Intensive Care

Manjusha Bhosale[1], Tejashri Mali[2], Shruti Pawar[3], Gauri Sonawan[4], Komal Verma[5]
[1]Lecturer, Computer Technology, K. K. Wagh Polytechnic, Nashik, Maharashtra, India
[2,3,4,5]Student, Computer Technology, K. K. Wagh Polytechnic, Nashik, Maharashtra, India

Abstract:*Intensive Care Unit or ICU is where the patients who are critically ill and admitted for treatment. For such critical conditions the Doctors need to have an all-time update patient's health related parameters like their blood pressure, heart pulse, temperature Asthma, Environment and saline is full or not. Doing manually is too tedious a task and also for multiple patients it becomes close to impossible. For this type of situations this IoT based system can bring about an automation that can keep the doctors updated all time over the network. IoT Based ICU Monitoring System is an Arduino based system which collects patients' information with the help of few sensors. The sensors which are networked, either worn on the patient's body or embedded in our living environments, change the gathering of data inductive of our physical and psychological state. Internet of Things (IoT) based smart health monitoring system is a patient monitoring system in which a patient can be monitored 24 hours. In the present world, Health monitoring systems are one of the most notable applications of IoT. In ICU, patient monitoring is critical and most important activity, as small delay in decision related to patients' treatment may cause permanent disability or even death. We are proposing IOT based system, which can help to fast communication and identifying emergency and initiate communication with doctors and also helps to initiate proactive and quick treatment.*

Keywords: Pulse-Sensor, Temperature-sensor, Arduino Uno, Load Cell, Buzzer, Button.

REFERENCES

[1] M. Surya Deekshith Gupta, VamsikrishnaPatchava, Virginia Menezes. "Healthcare based on IoT Using Raspberry Pi"2015 International Conference on Green Computing and Internet of Things ((ICGCIoT), 2015
[2] Tatiana Huertas, Diego Mendez. "Biomedical IoT Device for Self – Monitoring Applications", Springer, 2016.
[3] B. G. Ahn, Y. H. Noh, and D. U. Jeong. Smart chair based on multi heart rate detection system. In 2015 IEEE SENSORS, pages 1–4, Nov 2015.
[4] S. H. Almotiri, M. A. Khan, and M. A. Alghamdi. Mobile health (m-health) system in the context of iot. In 2016 IEEE 4th International Conference on Future Internet of Things and Cloud Workshops (FiCloudW), pages 39–42, Aug 2016.
[5] Banerjee S, Roy S. Design of a photo plethysmography-based pulse rate detector. Int J Rec Trends Eng Res. 2016; 2:302–6.