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(57) Abstract :

Rapid development of technology, leads to new possibilities embracing in various traditional business sectors specifically Internet of Things (IoT) along with smart devices plays significant role for the development of health care centre. The technology of IoT transforms the landscape of healthcare, thereby posing higher requirement of resource management in hospitals. This invention develops an IoT system that can be deployed in hospitals for several applications which is able to support various data collection methods such as Wi-Fi, LoRa etc. This collected data is uploaded to the cloud platform through a secure connection for further processing by which feedback is provided to the users utilizing user interface in real time. This invention measures physiological parameters of In-hospital patients periodically by IoT eliminating the need of a health care professional by ubiquitous monitoring system utilizing sensors, gateways and cloud for analyzing and storage of data. This recorded data is communicated to physicians wirelessly such that physicians are able to access patient™s data from any location through any smart devices such as PC, smart phone or tablet thereby prescribing appropriate medication. Hence IoT provides Autonomous life care system with higher efficiency and lower cost.

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Abstract:

Rapid development of technology, leads to new possibilities embracing in various traditional business sectors specifically Internet of Things (IoT) along with smart devices significant role for the development of health care centre. The technology of IoT transforms the landscape of healthcare, thereby posing higher requirement of resource management in hospitals. This invention develops an IoT system that can be deployed in hospitals for several applications which is able to support various data collection methods such as Wi-Fi, LoRa etc. This collected data is uploaded to the cloud platform through a secure connection for further processing by which feedback is provided to users utilizing user interface in real time. This invention measures physiological parameters of In-hospital patients periodically by IoT eliminating the need of a health care professional by ubiquitous monitoring system utilizing sensors, gateways and cloud for analyzing and storage of data. This recorded data is communicated to physicians wirelessly such that physicians are able to access patient's data from any location through any smart devices such as PC, smart phone or tablet thereby prescribing appropriate medication. Hence IoT provides Autonomous life care system with higher efficiency and lower cost.

Complete Specification

Claims:1. This invention provides reliable and authenticated life care service with data confidentiality overcoming the issues of IoT.
2. Real time intelligent IoT system is proposed for providing timely user feedback through user interface system.
3. Potential risk due to database leakage leading to misjudgment is avoided by uploading the data to the cloud and establishing a reliable connection with the local system.
4. Efficiency of operation and management of hospital is improved greatly by this system as the autonomous system provides unique lifecare.
5. Patient data is secured avoiding any tampering or leakage of database.
6. Integration of professional module handling medical information realizes ecology of smart hospital system. , Description:Data visualization and voice broadcasting of IoT data is done by the service layer thus allowing the users to access the live real time data of the patient without any medical professional involvement. User is able to access the data either by mobile Application or through web page from any remote place where the source of data is directly from the data storage layer.
? The two interfaces available for the user are web and mobile interface.
? Deployment of the system is done by testing the data acquisition and the system feedback where the demo utilized automatic tracking robot Ultimate 2.0 which is equipped with modules for attitude detection, indoor positioning, ECG monitoring and environmental monitoring.
? Preset track map is used for the robot to move with positioning node such that it is able to provide unique life care for the patient.
? Three BLE anchor nodes are involved with UWB anchor node where the robot approaches the nodes during its journey in the demo site with accurate positioning based on UWB in decimeter level, along with counting module for determining the people count in the demo site.

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