Wireless Sensor Network Based Health Care Monitoring System Using Arduino

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Abstract: *The health monitoring system has become popular these days due to uniqueness and diversified usage in the medical field. Everyday many lives are affected because the diseases are not timely and properly diagnosed so we didn't get a chance to provide medical help. To deal with these types of situations, this system will help to monitor a patient's certain parameters and predict the patient's condition from time to time. So the most recent development in healthcare communication methodology, IoT is customized. IoT is a catalyst for the healthcare and plays distinguished role in many applications. In this project, microcontroller is used as a gateway for communication. This system puts forward a wise patient health monitoring system that uses sensors to trace patient health and uses internet to intimate their loved ones or concerned doctors in case of any emergency. The controller is additionally connected with a buzzer to alert the caretaker regarding variation in detector output. The sensors are connected to a microcontroller to trace the status of the patient which in turn is interfaced with LCD display furthermore as wireless local area network association so as to transmit alerts. If the system detects any changes in patient pulse rate or BP, the system automatically sends an alert to the doctor regarding the patient status over IoT and additionally shows the details of heartbeat, BP and temperature of patient, live over the cloud. So IoT based patient health monitoring system effectively uses internet to watch patient health status and save lives on time. For this reason, fast conditional medication may be simply done by this technique. This system is easy to setup and is capable of high performance and time to time response.*

Keywords: Embedded System, IOT, Patient Health Monitoring, Microcontroller, Sensor

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