

ICU Patient Monitoring and Heart Attack Detection

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Abstract: Nowadays, numerous persons are mislaying their life owing to heart attack and shortage of medical attention to patients at the correct stage. In today's world, cardiovascular diseases including heart attacks are the prime reason for mortality. Detecting heart attack rise at early stages and accurate assessments of such risks related to cardiovascular conditions play an essential role in active patient management and preventive interventions [1].

The current ICU patient monitoring system relies on manual data and periodic checkups, leading to potential delays in detecting critical conditions. Hence, in this project we are implementing heart rate monitoring and heart attack recognition system using IoT [1][8]. The heartbeat sensor will allow checking heartbeat readings and transmit them over the internet (cloud) and Android app.

In critical care, the monitoring is essential to the daily care of ICU patients, as the optimization of patient's hemodynamic, ventilation, temperature, nutrition, and metabolism is the key to improve patients' survival. Patients are admitted to an intensive care unit (ICU) for intensive therapy, intensive monitoring or intensive support. Their needs range from observation of vital signs after major surgery to total support of physiological systems.

The primary goal of the intensive care unit (ICU) team is the achievement of stable cardiopulmonary function and optimal oxygen transport. Monitoring implies regular observation and a systematic response if there is deviation from a specified range.

In conclusion, the IoT-based ICU patient monitoring and heart attack detection system described in this abstract demonstrates significant potential to improve patient outcomes through early detection, timely intervention, and continuous remote monitoring.

Keywords: Pulse, Temperature, Camera, Internet technology and IoT

