

STUDY OF BIOLOGICAL SIGNALS MONITORED FROM PATIENTS USING WIRELESS SENSOR NETWORKS

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ABSTRACT

Humans have five basic senses—hearing, sight, touch, smell and taste correspond to the primary biological sensors, which are the ear, eye, skin, and nose and tongue respectively. Using these sensors, humans are able to make observations, accumulate data and process it into usable information. However, built-in biological sensors have practical limitations of data range and type of observation, and they are not suitable for particular measurements. In comparison, man-made sensors measure characteristics of real-world physical environments and convert them into raw data, which can be processed into information that may be used or kept digitally for later access and analysis. Novel wireless communication solutions based on bio-medical sensors for reliable vital sign transmission and further processing has become an integral part of the medical solutions particularly in the areas of telemedicine and remote health monitoring, due to its accessibility and cost effectiveness. This paper presents a comprehensive survey of the recent works addressing the Monitoring of biological signals from Patients based on Wireless Sensor Networks.

KEYWORDS: HMI (Human Machine Interface), Bio-Sensors, Wireless Sensors, Wireless Body Area Network (WBAN)