Applying WSN to control Heart patients

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Abstract The application of Wireless Body Sensor Network in the field of remote medicine have been developed in recent years. The Sensors send vital data to the healthcare applications. In this study, we attempted to perform a Fuzzy clustering algorithm for a first level analyzing of heart beat rate signals which are retrieved a patient's body sensor and then we classified the proper cardiac risks by neural network algorithm. The mixture of a Fuzzy clustering algorithm and Neural Network have reduced the system's fault prospect. We run an application in the side of patient's cellphone that receives the sensor's data and analyzes the entry signals by a Fuzzy clustering algorithm and if an alarm happens then the app sends the sensor's parameters to Hospital's software to classify the type of patience caused the risk by Neural Network Algorithm. Also mining systems requires past prediction data of the patient in order to predict the future risk patterns, which is a bottleneck of the system predicting the risk for new patient is impossible. Keywords: Wireless sensor network (WSN); Wireless body sensor network; Signal preprocessing; Cardiac Patient monitoring; Mobile healthcare.

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