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Abstract

Heart disease is the major cause of death today. Cholesterol, blood pressure and CVD cardiovascular disease. Pulse rate are the main reason for the heart disease. Measurement of heart rate variability (HRV) its shows information on the functional state of the autonomic nervous system (sympathetic and parasympathetic). HR analysis based on measure of heart rate signal per unit of time of the number of heartbeats (identified as RR interval, as it is the time interval between successive R points of the QRS complex of the electrocardiogram and measured by the variation in the beat-to-beat interval).Heart rate variability (HRV) is a relatively new method for assessing the effects of stress on your body. It is measured as the time gap between your heart beats that varies as you breathe in and out. The heart is a key factor of the human body, acting as a pump that transfers oxygenated and deoxygenated blood around the body. Like all other organs, it is susceptible to diseases and age. Heart rate variability is a reliable indication of the many physiological factors modulating the normal rhythm of the heart. In fact, they provide a powerful means of observing the relationship between the sympathetic

and parasympathetic nervous systems. It is also significantly associated with average heart rate (HR), therefore, HRV actually provides information on two quantities, that is, on HR and its variability.

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Index Terms

Computer Science

Signal Processing

Keywords

ECG (Electrocardiogram), HR, RR interval, Heart Rate Variability, KNN, GA.