
Provide a new method for the diagnosis of heart disease using the fewest number of leads in the ECG

Masoud Shani Saravani*,

With the help of signal processing and image processing tasks that can be analyzed in medical science was not easily recognizable to convert high resolution images. In many cases things automatically without operator and have become mechanized. This accounts for the large number of patients in the Third World is that medical issues, can be very beneficial. Perhaps one of the most necessary devices are used in every hospital, vital signs detection device body. In this thesis a new method for the diagnosis of cardiac diseases using the fewest number of leads in the ECG offer. In this regard, the signals the noise of our various leads and the number of independent component analysis and principal component analysis algorithm problem by reducing the components of our analysis. This information can be determined to what extent the different leads dependent on each other. This way leads information can be used in the diagnosis of cardiac arrhythmias and significance of data obtained different parts of the heart in the diagnosis of cardiac arrhythmia classification.

Keywords : signal processing, image processing, heart disease, independent component analysis, principal component analysis and cardiac arrhythmias

[Islamic Azad University, Rasht Branch - Thesis Database](#)
[دانشگاه آزاد اسلامی، واحد رشت - سامانه بانک اطلاعات پایان نامه ها](#)