

ABSTRACT

The heart is an organ that is owned by human, where the function of the heart is essential for human life. So the precise measurements needed to determine the condition of the heart. The development of methods of measuring heart rate to determine heart abnormalities early with high accuracy. Electrocardiograph (ECG) is one of the heart's electrical activity recording equipment to detect the condition of one's heart health.

In this research, the introduction of disorder / heart disease by using ECG signals to be implemented on a Field Programable Gate Array (FPGA). The ECG signal is processed using wavelet decomposition method for detecting cardiac abnormalities occur early. The wavelet decomposition will be displayed using the screen for its monitoring.

In this study the detection of cardiac abnormalities resulting system that can be implemented on FPGA. To detect AF dinghasilkan abnormalities characteristic features of the initial amplitude is worth 34, the resulting amplitude anomaly CHF 24 and the result amplitude characteristics NSR beginning at 8. Maximum delay of 580 system clock cycles of the system clock input.

Keywords: ECG, FPGA, Wavelet Package Decomposition