

TITLE

ECG Signal Capturisation and Visual Detection of Heart Abnormalities

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In modern days the socio-economic life is increasingly hampered due to the attack of different types of heart problems. A group of researchers including physicians and technologists, are engaged to investigate the causes behind these problems and to design the methods and instruments to combat and relief of the problem.. The electrocardiogram (ECG) is commonly used diagnostic tool to measure and record the electrical activity of the heart which leads to interpret different heart abnormalities. This paper presents an approach to devise a method of capturing the ECG signal from human body, the visual detection of heart abnormalities from this signal and developing a database for future use.

Fig. 1 shows the block diagram of the experimental setup.

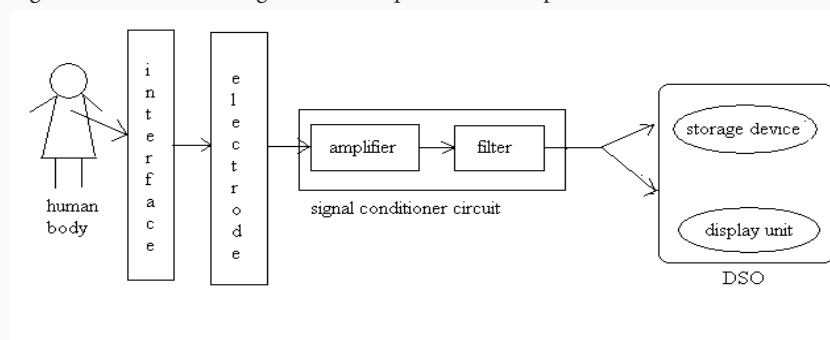


Fig. 1 Block diagram of the experimental set up

Here the ecg signal is captured by bio-electrodes in 3-lead configuration and after proper conditioning, it is displayed in VDU. This ecg signal can now be analyzed by comparing it with a standard one to infer the presence of heart abnormalities, if any, and can be stored in a storage device to produce a database for future medical diagnosis and research.

Biography

Mrs. Jayita Datta completed her M.Tech . Degree with specialization in Measurement & Instrumentation from the Department of Applied Physics, under University of Calcutta, India in the year of 1989. She is now doing her research work in the field of biomedical engineering in this department.

She has working experience as Design Engineer in an engineering firm and also has sixteen years of teaching experience in various institutes and colleges. Presently she is Assistant Professor and Head of the Department in Applied Electronics & Instrumentation Engineering in Guru Nanak Institute of Technology, Sodepur, India from 2006 onwards.