SRINIVAS UNIVERSITY
College of Engineering and Technology
Mukka,Mangalore-574146, Karnataka (India)

Research Centre for Biomedical Signal Processing

Prof. Aparna N S

In bio-medical signal environment, vast quantities of data are generated and diagnosis based on the clinical information content of the signal is enormously time consuming. Biomedical Signal Processing involves techniques to obtain medical or biochemical information so as to provide enhanced medical diagnosis. The systems in the body communicate through electrical or non-electrical signal called bio signals. Bio-signals are continuously read and examined to get better management of chronic diseases and earlier detection of adverse events such as heart attacks and strokes and earlier diagnosis of the disease. Biomedical Signal Processing is used to separate signals of interest and perform absolute diagnosis.

Digital signal classification, analysis and identification techniques are increasingly being used on bio-medical signals to properly identify the abnormalities. Biomedical signal processing involves the analysis of these measurements to provide useful information upon which clinicians can make

decisions. Engineers are discovering new ways to process these signals using a variety of mathematical formulae and algorithms which gives sophisticated means to analyze signal and potentially determine the state of a patient's health through more noninvasive measures.

Srinivas University Research Centre for Biomedical Signal Processing is more focused on the potential use of signal processing and modeling techniques for quantitative or objective analysis of biomedical signals.

Objectives:

- Filter design for removal of artifacts before signal analysis.

- Biomedical data analysis and pattern recognition

- Research and development in medical devices and instrumentation

- Design and engineering of sports equipment and testing

Publications:

- Sumathra T and Aparna N S Two stage Parzen Window Entropy based Co-operative spectrum Sensing IJART Vol 5 Issue 4 April 2017

- Implementation of MAI cancellation and BER analysis in CDMA, National conference on communication and image processing at T John Institute of technology

Working Papers:

- Wavelet transform based ECG segmentation and analysis.

- Filter design and removal of artifacts before signal analysis.