

Time and physical dimensions of biosignals

Biosignal is a short term for all kinds of signals that can be measure from biological beings. The term biosignal means bio-electrical signal but it doesnt have to be electrical it also can be non electrical signals as well.

Electric, mechanical or chemical signals of biological origin delivered by living things can always be of interest for diagnosis, patient monitoring, and biomedical research.

Such biological signals, namely biosignals, as electrocardiogram (ECG), electroencephalogram (EEG), surface electromyogram (SEMG), bioacoustic signals (lung, heart, and bowel sounds), are usually presented by large amounts of data when digitized for storage and analysis within a signal processing framework.

On the contrary, other medical information, i.e., drug description, demographic and anamnestic data, result in substantially smaller data archives.

Biosignal categories

1. Bioelectric signals, i.e., ECG, EEG, and SEMG.
2. Bioacoustic signals, i.e., lung sounds (LS), heart sounds (HS), and bowel sounds.

Information in biosignals is often depreciated by a disturbance or noise. Therefore the biosignals have to be properly processed – using a transformation or filtration to extract required information.

There are a few methods and algorithms for biosignal processing : 1- or 2-dimensional, in time or in frequency distribution.

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