Special Issue

Advances in Biomedical Signal Processing and Analysis

Message from the Guest Editors

- Biomedical signals are key indicators of physiological activity within the human body, providing vital information regarding the health and well-being of the individual. The presence of various sources of distortion unavoidably contaminates the signals, making it challenging to extract diagnostic information from the signal due to the nonstationary and non-ergodic behaviors of physiological signals. The integration of stochastic and ensemble processing of biomedical signals has led to significant advancements in signal understanding, complemented by sophisticated machine learning methodologies for classification and representation. The idea of cyclic stochastic processing of biomedical signals has significantly enriched the processing task by leveraging statistical processing methods. However, it should be noted that this topic is applicable only to the physiological signals in which the cyclic characteristics are intrinsically introduced. The heart sound signal (or alternatively phonocardiogram), lung sound signal, electrocardiogram, and sleep electroencephalogram are well-known signals with cyclic characteristics...

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Our primary goal is to encourage scientists and engineers to publish their theoretical results and developed methods in as much detail as possible. There is no limit to the maximum length of papers. Whenever possible, authors are encouraged to provide relevant data and developed code so that the results can be reproduced. Our goal is to provide a platform for scientists and engineers to share new approaches to signal processing in various application domains.

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