Topical Collection

Advances of Biomedical Signal Processing for Disease Diagnosis, Prognosis or Severity Determination

Message from the Collection Editors

Clinicians still frequently diagnose and prognose by observation, either directly on the patient or indirectly through images or analytical parameters, with a significant subjectivity bias. A huge number of accessible sensors are available nowadays that provide fine-grained dynamical information on inner body and organ processes, different from the regular information used in clinical practice. The analysis of this information can provide objective, more robust, and accurate diagnostic and prognostic criteria, as well as better characterize the disease stage.

The aim of this Special Issue is to evidence the benefit of the interdisciplinary joint effort of Physics, Engineering and Medicine by bringing together works on advanced biomedical signal processing techniques that provide added value to the diagnosis, prognosis or stage determination of any disease or condition.

- medical image
- computer-vision-based diagnosis and prognosis
- LPF-, ECoG-, EEG-, MEG-, NIRS-, ECG-, EMG- or IMU-processing
- speech and sound
- artificial intelligence
- machine learning
- non-linear biomedical signal processing
- graph-based signal characterization
- biomedical signal integration

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Message from the Editor-in-Chief

As the world of science becomes ever more specialized, researchers may lose themselves in the deep forest of the ever increasing number of subfields being created. This open access journal *Applied Sciences* has been started to link these subfields, so researchers can cut through the forest and see the surrounding, or quite distant fields and subfields to help develop his/her own research even further with the aid of this multi-dimensional network.

Editor-in-Chief

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