CALL FOR PAPERS FOR THE SPECIAL SESSION

Instrumentation and Measurements for Movement Analysis in Clinical Settings

ABSTRACT

Human movement's studies are gaining a growing emerging interest in several diagnostic, therapeutic and rehabilitative medical settings. Biomedical measures' reliability of kinematic, biomechanical and electromyographic parameters related to movement analysis, not only in normal but especially on pathological subjects, require high level engineered techniques.

Electronic instrumentation, protocols and measurement methods are playing a relevant role identifying diagnostic indexes and outcome parameters of meaningful clinical value in medical decision support. Wearable sensors for movement analysis have shown great prospects in recent years, as these devices are inexpensive and can be applied outside the laboratory environment, enabling to perform the analysis in different scenarios (from hospital settings to home and daily environments). Other important trends are represented by the development of e-textile technologies and IoT m-health platform for remote patient monitoring.

The aim of this special session is to gather scientific contributions in the field of instrumentation and measurements of movement analysis in clinical settings.

TOPICS

Special session on Instrumentation and Measurements for Movement Analysis in Clinical Settings include, but it is not limited to, the topics:

- ❑ Posturographic measurements
- ❑ Gait analysis measurements
- ❑ Upper arms movements measurements
- ❑ Movement analysis with wearable sensors
- ❑ Robot mediated movement measurements
- ❑ Functional outcome measures in mobility
- ❑ Sensor miniaturization and manufacturing techniques
- ❑ Sensor signal processing
- ❑ Internet of medical things for wearable monitoring systems
- ❑ E-textile systems for movement analysis

CHAIRS

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