8th International Workshop on Biosignal Interpretation

BSI 2016 - November 1-3, 2016 - International House Osaka, Osaka, Japan

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CALL FOR PAPERS

SCOPE:

The International Medical Informatics Association (IMIA), the International Federation for Medical and Biological Engineering (IFMBE), the IEEE Engineering in Medicine and Biology Society (EMBS), as well as the Japanese Society for Medical and Biological Engineering (JSMBE, tentative), the Society of Instrument and Control Engineers (SICE, tentative) will organize the eighth International Workshop on Biosignal Interpretation which will be held in downtown Osaka on November 1st-3rd 2016. The workshop aims at exploring the fields of biosignal interpretation including model based signal analysis, data interpretation and integration, medical decision making extending the existing signal processing methods and technologies for the effective utilization of biosignals in a clinical environment as well as for a deeper understanding of biological functions from the whole organism, system, to cellular, protein and gene scales. This Workshop was held basically every three years with a site rotation among Europe, Asia and America. The first one was held in Denmark in 1993 and the last one was in Como, Italy, in 2012.

SCIENTIFIC PROGRAM:

Distinguished speakers will be invited to deliver lectures on important topics of the field. Original contributions pertinent with the scope of the workshop are welcome. Prospective authors are invited to submit original contributions in any of the following categories but not limited to:

- Biosignal processing, pattern analysis, and data fusion (linear, nonlinear and nonstationary analysis, adaptive data processing, model based signal analysis, chaotic and fractal analysis, time-frequency and time scale analysis, cluster analysis, genetic algorithms, neural net, Fuzzy analysis, data mining and prediction, integration of signals and images, applications to ECG, Heart Rate Variability, EEG, MEG, EMG signals analysis, evoked potentials, multimodality approach, fusion with imaging like CT, MRI and PET/SPECT as well as other related topics).
- Mathematical modeling of experimental and clinical data (linear and nonlinear phenomena, complex systems, neural modeling and neural dynamics, modeling and control of cardiovascular, autonomic and pulmonary systems, modeling of brain functions, perception and learning or other related topics).
- On-line interactive signal acquisition and processing (on-line patient monitoring, intelligent monitoring, ambulatory systems and other related topics).
- Medical decision support methods (parameter estimation, decision making, rule based/expert systems, automatic diagnosis, data reasoning and other related topics).
- Medical informatics (biosignal interpretation in virtual reality applications, in telemedicine and internet-based solutions for transmission, exchange and analysis of biomedical data and other related topics).
- Big data in biology, physiology and medicine (big data analytics and sensor informatics for genome, proteome and physiome, and other related topics).
- Biobehavioral informatics (ecological momentary assessment, mining and modeling of biobehavioral data, personalized health management and just-in-time adaptive intervention and other related topics).

PUBLICATIONS:

All submitted papers will be reviewed on the basis of scientific quality, relevance, originality, medical and biological significance, and clarity. Accepted papers will appear in the conference proceedings. The following journals have so far committed to hosting a focus issue/section for invited full-length manuscripts that succeed in peer-review: Physiological Measurement, Methods of Information in Medicine, and Advanced Biomedical Engineering.

IMPORTANT DEADLINES:

1. Submission of papers (up to 4 pages): June 20th, 2016
2. Acceptance of papers: August 1st, 2016
3. Early registration deadline: August 20th, 2016
4. Return of revised papers: September 1st, 2016
5. The Workshop: November 1-3rd, 2016

CONTACTS:

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