

International Conference on Advanced Technologies, Signal & Image Processing

March 24-27, 2020, Sousse, Tunisia

Special Session Chair(s):

- Hassene SEDDIK : CHAIR
- Itaf Ben Slimen and Ayachi Monaam: Co-chairs

The special session is entitled: Medical application for doctor's assistance based EEG and EMG signals.

Aims & topics: The special session aims to up to date listeners and researchers with new techniques and tools used to assist doctors in their decision. In this session both EEG and EMG signals are exploited in the field of robotic control and disease prediction. Based on these signals, three main topics will be presented such as:

- Early Epilepsy detection and prediction
- Artificial arm or hand control
- sleep apnea disease
- EEG and EMG based control Exo-skeleton
- Virtual Reality and augmented reality systems
- Digital Speech processing and recognition
- Machine vision engineering and image processing
- Imitation of human motion with humanoid robot
- Big data analytics

Topics of the SS:

- Different techniques used for collecting, preprocessing, filtering and classification of EMG signals.
- Supervised techniques for EMG Classification.
- Biomedical Signal Processing
- Signal processing using artificial intelligence and nonlinear tools
- Brain computer interfaces
- Wireless health monitoring system for ECG, EMG and EEG detecting
- Hand motion reconstruction using EEG and EMG

Detection and classification of epileptic seizures in EEG signals, Itaf BEN SLIMEN

Prediction of epileptic seizures based on epileptiform of EEG signals, Itaf BEN SLIMEN

EMG signal processing and classification for prosthetic applications, Monaam Ayachi

Classification of hypopnea sleep apnea syndrome in EEG, EMG, ECG signals, ImenSouai

