

First Biomedical Engineering conference 2015

5th March 2015



Conference venue: The conference will be held in Aula TS118, Campus Torre dels Frares, Universitat de Vic-Universitat de Catalunya (Carrer de la Laura, 13 08500 Vic)

Time: 15:00 - 17:25

PROGRAM OVERVIEW

15.00 - 15.05 **Opening session**

15:05 - 15:45 **Invited talk by Prof. C. Jutten**
(GIPSA-lab, Grenoble, France)

Title: *Dynamical analysis of iEEG of epileptic rats*

Abstract: Source separation is able to explain multidimensional data by factorizing them as a product of latent variables, called sources, by temporal activation functions. When considering such processing in successive time windows, one can wonder how the factorization, i.e. sources and activation functions, are changing along the successive windows. This can be used for analysing dynamics of multidimensional signals. In this talk, we apply this idea for understanding, from intracortical EEG of epileptic rats, where an epileptic seizure is starting and how it is temporally changing.

15:45 - 16:25 **Invited talk by Dr. F. Vialatte**
(ESPIC ParisTech, Paris, France)

Title: *Towards cognitive brain-computer interfaces (BCI)*

Abstract: compensating, training, repairing or stimulating cognitive functions is a transhumanist dream. New trends in cognitive neuro engineer may allow it in a near future. We will discuss paradigms of cognitive BCI and their limits.

16:25 - 16:40 **Coffee break**

16:40 - 17:25 **Invited talk by Starlab (Barcelona, Catalunya) which includes a demonstration of real EEG equipment.**

17:25 - 17:30 **Closing session**