

# 29 Nov(Tue)

**Time: 13.00 - 15.00 (!)**

**@ Room AZ-19, BME B.U. Kandilli Campus**

**ISEK**  
İstanbul Sağlık  
Endüstrisi  
Kümelennmesi

## Analysis of Brain-Heart Networks

**Prof. Alberto Taboada-Crispi, Ph.D.**

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Neurotechnology, UESTC, China**

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Abreu” de Las Villas (UCLV), Cuba**

### About the Seminar:

This talk will introduce briefly the Joint China-Cuba Lab for Frontiers Research in Translational Neurotechnology, at UESTC, China. Then, it will illustrate their current research with the topic of brain-heart networks analysis. Several studies have approached the relationship between the heart and the brain functions, by using different time series and parameters associated to them, under certain conditions (comprising, for instance, sleep studies, anesthesia, or schizophrenia). In the recent years, the interest on the brain-heart networks have increased with the availability of novel databases, analytical and computational tools for pre-processing and processing the simultaneous data. In this talk, we discuss the current applications of the brain-heart network analysis, the resources (datasets and tools) available, along with the trends in the signal and image processing and statistical methods. A few examples on real data are provided.

### About the Speaker:

Alberto Taboada-Crispi is both a Protocol Professor at the Center for Information in Medicine and School of Life Science and Technology, Joint China-Cuba Lab for Frontiers Research in Translational Neurotechnology, at the University of Electronic Science and Technology of China (UESTC) in Chengdu, and a Full Professor and Senior Researcher at Universidad Central “Marta Abreu” de Las Villas (UCLV) in Cuba. He received his BSc. and MSc. diplomas in Electronic Engineering at UCLV in 1985 and 1996, respectively, and a Ph.D. from University of New Brunswick, Canada, in 2002. He was the Director of the Center for Studies in Electronics and Information Technologies, UCLV, for about 10 years; Coordinator of the Master Programs on: Signals and Systems, and Biomedical Engineering; Coordinator of the Group of Pharmacy and Medical Equipment of the Scientific Pole of Villa Clara province; and Member of the Experts’ Group of the National Scientific Program on Neurosciences and Neurotechnologies in Cuba. He has taught more than 60 graduate and undergraduate courses in Cuba and abroad, and supervised more than 80 students. Taboada-Crispi has more than 100 refereed papers, 3 patents and 5 software registers. His major research interests include Biomedical Engineering, Neuroinformatics, Instrumentation, Digital Signal and Image Processing/Analysis, and Pattern Recognition.