2016 IEEE International Symposium on





# MAY 16 - 18, 2016 **BENEVENTO ITALY**



# 2006 - 2016 : Back to Benevento CALL <sup>6</sup> **PAPERS** FOR THE SPECIAL SESSION

# **BIOMEDICAL MEASUREMENT PROCESSING FOR MONITORING PHYSIOLOGICAL PARAMETERS**

### ABSTRACT

Many processes active in the human body are not directly measurable. This is primarily so because the human body often acts as a black box. This implies that all information must be extracted from external sensors or extracting direct information is difficult since the process in the human body is too involved and lack understanding or insight.

Extracting physiological information from such physiological parameters requires a modeling step which captures and describes the relationship between the measurable process and the physiological parameters of interest.

This special session is a meeting for researchers working on a specific application where a direct measurement of physiological information is difficult or impossible. This special session aims at but is not limited to: advances in gait position monitoring, measurement processing for health state detection of persons, layman monitoring of physiological parameters

All the papers reporting about research related to the above-mentioned topics are welcome.

## TOPICS

Paper submissions on all areas of biomedical parameter monitoring are welcome.

Topics of interest include but are not limited to:

- · Blood pressure monitoring,
- Photoplethysmography
- Gait detection
- Health state monitoring
- Bio-impedance spectroscopy
- Physiological parameter modeling for living assistance
- · Parameter monitoring in (tele)surgery applications

### BENEVENTO

Benevento, due to the Santa Sofia's Church with its Cloister, has been part of UNESCO World Heritage Sites as "Longobards in Italy. Places of the power".



**MORE INFO** For further information, please visit

MeMeA2016 website at



DATES

- January 17, 2016 Submission of Final Paper (5-6 pages) - first version
- > March 10, 2016 - Submission of revised **Final Paper**
- April 4, 2016 Final Submission, Registration

### **SUBMISSION**

Prospective authors must electronically submit a final paper (5-6 pages, including figures) by January 10, 2016, by pointing out the related Special Session.

All papers will receive multiple peer reviews; authors will receive timely notification of paper acceptance. If accepted, final papers must be no more than 6 pages and will be submitted electronically.

Papers must be presented at the conference orally by an author, will appear in the final conference proceedings, and will be indexed in the Scopus citation index.

### **CHAIRS**

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Dr. Kurt Barbé received the Master degree in Mathematics (option Statistics) and the PhD degree in engineering from the Vrije Universiteit Brussel (VUB), Brussels, Belgium, in 2005 and 2009 respectively. Presently, he is a research professor at the VUB, department Mathematics (DWIS). Furthermore, he is a post-doctoral research fellow with the Flemish Research Foundation (FWO) and VUB-coordinator of Elemish training network on research Methodology and Statistics (FLAMES). His main interests are in the field of numerical methods for time series analysis and dynamical systems for various biomedical applications. Since 2010, he has served as an associate editor for the IEEE Transactions on Instrumentation and Measurement and since 2013 he joined the editorial board of the journals "Journal of Stochastics' and "The scientific world: probability and statistics" He is the recipient of the 2011 outstanding young engineer award from the IEEE Instrumentation and Measurement Society and the 2013 Andi Chi Best Paper Award of the IEEE Transactions on Instrumentation and Measurement.

Lieve Lauwers received the master degree and PhD degree in Electrical Engineering, respectively, in July 2005 and May 2011 from the Vrije Universiteit Brussel (VUB), Brussels, Belgium. Currently she works as a post-doctoral research at the Department of Mathematics (DWIS) at the VUB. In October 2011, she became a postdoctoral fellow at the Flemish Research Foundation (FWO) to investigate novel fMRI signal detection methods. Her research interests are in the field of nonlinear system identification and signal analysis for biomedical applications.

