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CALL FOR PAPERS

FOR THE SPECIAL SESSION

INDUSTRIAL AND CLINICAL APPLICATIONS OF MEASUREMENT IN MEDICINE

ABSTRACT

Since the development of the EKG machine in 1872, electronic instruments have been measuring the health of human beings. Today there are thousands of products from wearable electronics, to room sized Magnetic Resonance Imagers, measuring electrical, chemical and mechanical performance of the body for diagnosis of a variety of medical conditions. In some applications, such as pacemakers, the measurements are used as direct inputs to an automated therapeutic system. In other cases, the measurements are converted into data delivered to the physicians or directly to the patient. Clinics and laboratories require unique approaches to measurement from cellular level forces, to electrical signals at neuron levels. Similarly, manufactured medical devices must be measured over biological ranges of signals to verify proper function. Papers in this session will explore measurement techniques as applied to these areas.

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

CHAIR



J Max Cortner

Boston Scientific

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Currently, Sr. Fellow Engineer in the Process Development Department of the Cardiac Rhythm Management and Electrophysiology Division of Boston Scientific Corporation. Previously served as Director of the Test Engineering Department in Cardiac Rhythm and Vascular Division, Boston Scientific Corporation. Led 48 engineers and technicians tasked with creating automated instrumentation and measurements systems for manufacturing test of pacemakers and defibrillators.

Earned a Master of Science in Electrical Engineering at the University of Minnesota and a BSEE at Iowa State University. Member of the AdCom of the IEEE Instrumentation and Measurement Society. Served as General Co-Chair for I2MTC2013 and General Chair of IMTC1998. Publications include a text book "Digital Test Engineering" and numerous magazine articles on medical device testing.

MORE INFORMATION

For further information, please visit
MeMeA2016 website at



memea2016.ieee-ims.org

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".



TOPICS

Topics of interest include but are not limited to:

- Brain wave measurements and brain activity imaging
- Neurologic sensing
- EKG and Heartbeat measurement
- Aural and sound measurement
- Optical measurement for eyesight evaluation
- Measurement of fluid flow and pressure in the body (blood pressure, etc.)
- Chemical measurement for medicine (Ph, enzymes, electrolytes, etc.)
- Muscle strength, contractility, exercise and movement

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.