



2006 - 2016: Back to Benevento

CALL FOR PAPERS

FOR THE SPECIAL SESSION

Precise Motion Measurement using Inertial Measurement Units

ABSTRACT

Activity estimation based on wearable gadgets, smart phones and watches plays an important role in today ICT based health applications and APPs. More serious applications are present in research for rehabilitation and preventive medicine. These applications require a precise measurement of body motions in 3D. Motion processing is enabled by sensors manufactured by a combination of micromechanics with microelectronics and are built for the consumer market.

IMUs come in wide variety which range from a 3-axis acceleration sensor to units combining the 3-axis acceleration sensor with a 3-axis angular velocity sensor and a 3-axis magnetic field sensor in a single package together with an on-board data fusion processor. Up to nine sensors are combined with signal processing and are very powerful and easy to use Inertial Measurement Units (IMU).

These systems will become an integral part of future health related systems. The robustness against external disturbances and environmental influence will play a central role in these applications.

The Special Session on motion processing with IMUs will bring together people from industry and academia who work on signal processing and on applications for IMUs in different areas of medical engineering.

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

CHAIRS



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- More than 10 years in Industry
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- Since 1994 Professor, Process Automation and Robotics, University of Bremen, Head of the Institute of Automation, Dep. Process Automation and Robotics

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.

MORE INFO

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

Paper submissions on all areas of motion measurements and processing using IMUs are welcome. Topics of interest include but are not limited to:

- Motion Measurements
- Motion Signal Processing
- Motion Classification
- Motion Analytical Modelling
- Activity and Gesture Recognition
- Motion Processing Using IMUs in Textile
- Motion Processing for Control
- Robust Signal Processing Methods

DATES

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

