

# 2012 IEEE International Instrumentation and Measurement Technology Conference

“Smart Measurements for a Sustainable Environment”



Congress Graz  
Graz, Austria  
May 13–16, 2012



## Call for Papers

**Extended Abstract Deadline November 30<sup>th</sup>**

The conference focuses on research, development and applications in the field of instrumentation and measurement science and technology. The conference also includes **Industrial Tracks** reflecting current opportunities for the mutually beneficial fusion of basic research and industrial applications. These tracks are highlighted by **Keynote Presentations** and are thematically coupled with **Tutorials** on May 13<sup>th</sup>.

A **Student Paper Contest** will be held for both graduate and undergraduate student papers, with cash awards for the best papers and travel subsidies depending on the student's location.



Authors no more than 35 years old will be eligible for a **special Best Paper competition** to be held in each of the **three Industrial Track topics**.



Conference topics include, but are not necessarily limited to:

### FUNDAMENTALS

Advanced metrology  
Education and e-learning  
Measurement uncertainty  
Modeling of signals and systems  
Quantities, units & standards

### SENSORS AND TRANSDUCERS

Chemical & biological sensors  
Electrical & power measurements  
Energy harvesting  
Optical sensing  
Sensor array processing  
Smart sensors  
Wireless sensors & sensor networks

### MEASUREMENTS OF PHYSICAL QUANTITIES

Dielectric & magnetic measurements  
Mass & density measurements  
Mechanical measurements  
Moisture & humidity measurements  
Properties of liquids  
Temperature measurements

### MEASUREMENT SYSTEMS

A/D & D/A converters  
Automated tests & diagnostics  
Calibration & self-calibration  
Condition & state monitoring  
Distributed measurement systems  
Instrumentation for harsh environments  
Instrumentation for mobile use  
Systems engineering  
Virtual measurement systems

### MEASUREMENT APPLICATIONS

Applied spectroscopy  
Automotive & transportation  
Avionics & aerospace  
Biomedical monitoring  
Electric drive train instrumentation  
Environmental monitoring  
Radiation instrumentation & sensing  
Remote sensing  
RF, microwave & capacitive sensing  
Robotics and HMI  
Security & biometrics  
Ships & marine technology  
Telecommunications

### SIGNAL AND IMAGE PROCESSING

Cognitive informatics  
Data pre- & post-processing  
Image processing & pattern recognition  
Inverse problems  
Measurement data management  
Sensor fusion  
Signal detection & classification  
Signal reconstruction

### INDUSTRIAL APPLICATIONS

Chemical and biological measurements  
Combustion process sensing & instrumentation  
Energy efficiency & renewables  
Fault tolerant sensor systems  
Industrial process tomography  
Material analysis  
Multiphase flow measurement  
Oil field sensing & drilling instrumentation  
Plant optimization  
Power-train testing  
Process instrumentation  
Quality assurance & authentication  
Sustainable propulsion technologies

Prospective authors are invited to submit extended abstracts (3-4 pages) via the I<sup>2</sup>MTC conference website (<http://imtc.ieee-ims.org/>). The abstract should report on original research results of theoretical or applied nature and should explain the significance of the contribution to the corresponding research field. The manuscripts must be prepared according to the abstract preparation guidelines provided on the I<sup>2</sup>MTC website.

The extended abstracts will be reviewed by the Technical Program Committee. All papers presented at the conference will be published in the **Conference Proceedings** and via **IEEE Xplore**. Important deadlines are:

- **November 30, 2011** – Deadline for submission of extended abstracts
- **January 15, 2012** – Notification of authors of paper acceptance/rejection
- **March 11, 2012** – Deadline for submission of camera-ready papers

#### Sponsors:



**General Chair**  
Georg Brasseur

**General Co-Chair**  
Imre Rudas

**Technical Program Chairs**  
Anton Fuchs  
Annamaria Varkonyi-Koczy  
Daniel Watzenig

**Local Arrangement Chair**  
Gert Holler

**Industry Liaison & Promotion Chair**  
Michael Mühlögger  
Peter Reichel

**Special Sessions Chair**  
Alessandro Ferrero

**Publication Chair**  
Axel Pinz

**Conference Management**  
Chris Dyer

CFP Ver. 8.2, 2011 November 6 © TUG

