



13th IFAC Conference
PDeS 2015
Programmable Devices and
Embedded Systems

CALL FOR PAPERS

for the International Conference

organised by
Institute of Electronics
Silesian University of Technology
Gliwice, Poland

in cooperation with

Department of Cybernetics
and Biomedical Engineering
Technical University of Ostrava

Department of Control and Instrumentation
Brno University of Technology
Czech Republic

Cracow, May 13th – 15th, 2015



ABOUT CONFERENCE

On behalf of the Programme Committee and Organising Committee we have a great pleasure to invite you to Cracow for the PDeS 2015 Conference. This event will be the 13th Conference of the series on Programmable Devices and Embedded Systems and unique opportunity to celebrate 20th anniversary of the conference. It is organized by the Institute of Electronics of the Silesian University of Technology (Poland) in cooperation with the University of Ostrava (Czech Republic) and the University of Brno (Czech Republic) since 1995. Since 1999 the PDeS Conference has been granted the high status of the IFAC Workshop. The IFAC Technical Committees: TC 3.1 on Computers for Control and TC 4.1 on Components and Technologies for Control are the event sponsors.

Many papers on programmable devices and embedded systems are presented at numerous conferences and workshops devoted to electronics and circuit theory. Nevertheless, except for PDeS, there is no workshop devoted solely to these particular topics. The 20 years of success of PDeS meetings gives us hope that the PDeS 2015 will be an excellent opportunity for academic researchers, users and vendors to meet. There will be a place to present the latest research results, share experiences and discuss problems in the field of programmable devices and embedded systems.

The PDeS papers are indexed by leading scientific data bases that are: Scopus, Thomson Reuters and IFAC Papers on Line. Authors of the best papers selected by the IPC are invited to publish extended version of their papers in international journals.

WORKSHOP SCOPE

Industrial Programmable Controllers, PC's and PLC's

- High effective CPU structures
- Special Purpose Modules
- Sensors and Measurements Converters
- Control Program Representation Methods
- SCADA Systems

Field Programmable Logic and High End Design Means

- New Programmable Logic Devices and Supporting Tools
- Digital Circuit Design using Programmable Devices
- High Level Synthesis and Partitioning
- Emulation of Digital Circuits using PLD Devices
- Reconfigurable Architectures
- Verification of Digital Logic Systems

Embedded Systems Microprocessors and Microcontrollers

- Multiprocessor Systems

- Design Tools and Application Software
- Microprocessor Based Control Systems
- Emulators and Simulators
- Hardware/Software Co-Design
- Embedded Operating Systems
- Standards, Safety and Security

Signal Processing

- Digital Signal Processing
- A/D and D/A Converters
- Neural Signal Processing
- Wavelets
- Design and Implementation of Signal Processing Systems
- Image and Multidimensional Signal Processing
- Signal Detection and Estimation
- Sensor Array and Multichannel Processing
- Speech Processing
- Nonlinear Signal Processing

Reliability and Safety of Elements, Circuits and Systems

- Compression, Error Correction Codes and Cryptography
- Remote Testing of Systems
- High Reliable Systems
- Fault Tolerant Circuits and Systems
- Behavioural Failure Modelling
- Quality of Communication Services
- Built-In Test Circuits and Architectures
- Analogue and Mixed-Signal Circuits Design and Test

Wireless Communication for Control Systems

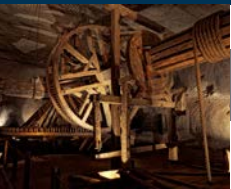
- Industrial Wireless Standards
- Wireless Embedded Devices in Control Systems
- Personal Digital Accessories in Context of Control Systems

Industrial Applications

- Innovative Industrial Applications
- Industrial Nets
- Signal Processing Applications

Biomedical Systems

- Biosensors and Data Acquisition
- Sensors of Biological Signals
- Clinical Applications and Research
- Medical Informatics
- Supporting Technologies for Health Handicapped
- Telemedicine
- Medical Imaging and Image Analysis
- Biosignal Processing
- Biomedical Instrumentation, Modelling and Simulation
- Measurement and Control in Biomedicine



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VENUE

Cracow, the former capital of Poland, was the coronation, residence and burial place of Polish kings. It is situated in the south of Poland on the Vistula River. Cracow was endowed with municipal rights in 1257 and it was Poland capital till 1609. In 1364, King Casimir the Great founded the Cracow Academy that, after Prague's, is the second oldest University in Central Europe. Over the centuries Cracow has remained an important center of culture and science.



WORKSHOP FEES

Registration Fee	400 €
Early Registration Fee (till April 5 th 2015)	350 €
Student Registration Fee	200 €

IMPORTANT DATES

Preliminary registration	November 30 th 2014
Submission of papers	January 11 th 2015
Notification of Acceptance	March 8 th 2015

PDeS 2015 ORGANISING COMMITTEE

Adam Milik, PhD
 Institute of Electronics,
 Silesian University of Technology,
 Akademicka 16; 44-100 Gliwice; Poland
 Tel.: ++4832 237 1495 (Secretary)
 Fax: ++4832 237 2225
 E-mail: pdes@polsl.pl
 WWW: pdes.polsl.pl

