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**on Components and Technologies for Control**

## Aim and Scope

The workshop organized by the Department of Measurement and Control of the Faculty of Electrical Engineering and Computer Science, VSB Technical University of Ostrava is considered to be a continuation of previous PDES conferences. On the basis of organizers' experiences and participants' opinions it has been decided to follow this scope on PDES 2009 IFAC workshop.

The main goal is to provide a forum to present the latest research results and experiences in the area of the design and application of programmable devices and systems and a forum to discuss the current status and future trends of this particular branch of applied electronics in control and information technology.

## General Information

This is an invitation to submit papers and to take part in the workshop. The program of the workshop will include 8 topics covering the main areas listed on the second side and the poster meeting.

Prospective participants should complete and send copy of the enclosed registration form to the National Organizing Committee by **30 September 2008** (by post, e-mail or fax) or should [register on line](#) by workshop website. Those who want to present papers or posters are kindly asked to provide draft paper including name and affiliation of the authors.

Papers or posters accepted by the Program Committee will be published in the workshop proceedings. The authors will be asked to send camera-ready-copy manuscripts according to the required format and submit them by **15 December 2008**. The workshop official language is English.

## Workshop Fees

- Registration Fee 400 €
- Early Registration Fee 300 €  
(till January 15<sup>th</sup> 2009)
- Student Registration Fee 150 €

## Copyright Conditions

The material submitted for presentation at an IFAC meeting (Congress, Symposium, Conference, Workshop) must be original, not published or being considered elsewhere. All papers accepted for presentation will appear in the Preprints of the meeting and will be distributed to the participants. Papers duly presented at the IFAC Congress, Symposia, Conferences and Workshops will be hosted on-line on the [www.IFACPapersOnLine.net](http://www.IFACPapersOnLine.net) website. The presented papers will be further screened for possible publication in the IFAC Journals (*Automatica*, *Control Engineering Practice*, *Annual Reviews in Control*, *Journal of Process Control*, *Engineering Applications of Artificial Intelligence*, and *Mechatronics*), or in IFAC affiliated journals. All papers presented will be recorded as an IFAC Publication.

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## Important Dates

- **June 30, 2008**  
Preliminary Registration
- **September 30, 2008**  
Draft Papers Submissions
- **October 20, 2008**  
Acceptance / Rejection Papers
- **December 15, 2008**  
Camera-ready Papers, Binding Registration
- **February 10<sup>th</sup>-12<sup>th</sup>, 2009**  
Workshop will be held



IFAC WORKSHOP  
on

PROGRAMMABLE DEVICES and EMBEDDED SYSTEMS

**PDES 2009**

1<sup>st</sup> Call for Papers



**Organized by**

**Department of Measurement and Control  
Faculty of Electrical Engineering and Computer Science  
VSB Technical University of Ostrava  
Czech Republic**

**In cooperation with**  
Institute of Electronics  
Silesian Technical University  
Gliwice  
Poland

**And**

Department of Control and Instrumentation  
Faculty of Electrical Engineering and Communication  
Brno University of Technology  
Czech Republic

**Ostrava, Czech Republic  
February 10<sup>th</sup>-12<sup>th</sup>, 2009**

<http://pdes2009.vsb.cz>

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Jiri Winkler (NOC vice-chair from industry)

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## **IFAC PDES 2009 Workshop Secretariat:**

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## International Program Committee

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## Topics

### **1. Industrial Programmable Controllers, Industrial PC's and PLC's**

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

### **2. 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 Programmable Devices
- Reconfigurable Architectures
- Verification of Digital Logic Systems

### **3. Embedded Systems, Microprocessors and Microcontrollers**

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

### **4. 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

### **5. 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
- Behavioral Failure Modeling
- Quality of Communication Services
- Built-In Test Circuits and Architectures
- Analogue and Mixed-Signal Circuits Design and Test

### **6. Wireless Communication for Control Systems**

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

### **7. Industrial applications**

- Innovative Industrial Applications
- Industrial Nets
- Signal Processing Applications

### **8. 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, Modeling and Simulation
- Measurement and Control in Biomedicine