



11th International Conference on
DIAGNOSTICS OF PROCESSES AND SYSTEMS
8–11 September 2013
Łagów Lubuski, Poland
www.dps2013.uz.zgora.pl

Scope

For many years technical diagnostics has been the area of intensive scientific research. It covers well-established topics as well as emerging developments in control engineering, artificial intelligence, applied mathematics and statistics. At the same time, a growing number of applications of different fault diagnosis methods, especially in electrical, mechanical, chemical and medical areas, is being observed. The rapidly increasing complexity of automation in the industry and the continuing need to ensure reliability and safety at the highest level require ongoing research and development of innovative fault diagnosis approaches. Furthermore, special attention is paid to fault-tolerant and self-reconfiguring control systems, which are crucial wherever maintenance or repair cannot be realized immediately.

The International Conference on *Diagnostics of Processes and Systems (DPS)* has been organized every two years since 1996 by the Warsaw University of Technology, the University of Zielona Góra and the Gdańsk University of Technology. The conference provides an excellent forum for exchanging knowledge and experience, and for sharing solutions within the academic and industrial community. The conference is addressed to both experts and young researchers, who can introduce their newest research achievements to the audience of leading scientists in technical diagnostics. The subject matter of the conference is replying to the expectations and demands of research and industrial centres for modern and safe diagnostics systems, process monitoring systems and expert systems. In general, conference topics correspond to the subject area of the IFAC symposium on *Fault Detection, Supervision and Safety for Technical Processes (SAFEPROCESS)*.

Chairs

Programme Committee

Józef Korbicz (Zielona Góra) – *Chair*
Jan M. Kościelny (Warsaw) – *Vice-Chair*
Zdzisław Kowalczyk (Gdańsk) – *Vice-Chair*

Organising Committee

Marek Kowal (Zielona Góra) – *Chair*
Krzysztof Patan (Zielona Góra) – *Vice-Chair*

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Topics

Fault detection, isolation and identification

mathematical models
identification and state estimation
fault modelling and simulation
qualitative models
statistical signal analysis
fuzzy and rough logic
expert systems
neural networks
soft computing
multi-agent systems

Process safety and reliability

supervisory control
fault forecasting
process security
safety-critical systems
condition monitoring
layered control
operator supporting systems

Fault-tolerant control systems

control reconfiguration
fault recovery
fault accommodation
integrated control and fault diagnosis

Industrial applications

electrical engineering
power industry
robotics and mechatronics
chemical processes
mining industry
automotive engineering
building supervision
communication networks
production systems
medical systems

Medical diagnostics

computer-aided diagnosis
medical image analysis
pattern recognition systems
health monitoring
telemedicine

Contributions & proceedings

Prospective participants are invited to submit their works in English or in Polish (web upload only). Please visit the conference website at www.dps2013.uz.zgora.pl for detailed instructions on paper preparation. The submitted papers will undergo a peer review process. Selected works will be published by Springer-Verlag in a collective monograph while others will be recommended for publication in the following journals: *Pomiary, Automatyka, Kontrola*, *International Journal of Applied Mathematics and Computer Science* and *Pomiary, Automatyka, Robotyka*.

Schedule

10 March 2013: Deadline for submission of full-length papers

14 April 2013: Paper acceptance notification

5 May 2013: Paper final versions due in electronic form + payment of the conference fee

8–11 September 2013: Conference meeting