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Summer Safety and Reliability Seminars

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Preface

Journal of Polish Safety and Reliability Association is an international journal devoted to the development and application of the methods of modelling, identification, prediction and optimization of the reliability, safety and security of complex systems and processes. The journal mainly publishes the papers and lectures accepted for and presented at the *Summer Safety and Reliability Seminars*.

The idea beyond the organization of the annual, one-week *Summer Safety and Reliability Seminars* is to provide a forum for discussing, advancing and developing methods for the safety and reliability analysis of the complex systems, which form the backbone of our modern Societies.

The subjects of the Seminars are chosen each year by the Programme Board in an effort to dynamically represent the methodological advancements developed to meet the newly arising challenges in the field of safety and reliability analysis.

This year the emphasis was addressed to the following subjects:

- Safety of Critical Infrastructures;
- Reliability and Safety Improvement and Optimization Methods;
- Accident Consequences Modelling;
- Reliability of Complex Systems and Processes;
- Monte Carlo Simulation Methods in Safety and Reliability.

Both 1-2 hours lectures on advanced methods (accompanied by a corresponding full text of up to 12 pages) and technical presentations of 20-30 minutes on applications of such methods (with corresponding full text of up to 8 pages) are offered during the plenary sessions and the seminar sessions, respectively.

The extended version of papers and lectures in the form of articles are collected in the *Journal of Polish Safety and Reliability Association: Summer Safety and Reliability Seminars*, which constitute an up-to-date reference textbook for the participants to the Seminars and all the researchers in the field.

The JPSRA Editorial Board with the assistance of the Invited Professors have performed the evaluations of all contributions: as a result, recommendations have been sent out to help the authors improving their work. In all, 68 papers and lectures have been accepted for presentation during the Seminar and for publication in the *Journal of Polish Safety and Reliability Association: Summer Safety and Reliability Seminars*. 30 of the papers and lectures are included in Number 1, 21 of the papers and lectures are included in Number 2 and 17 of the papers and lectures are included in Number 3.

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Invited Professors & Plenary Lectures

Heinz-Peter Berg, How to Investigate and Assess Combinations of Hazards
Mohamed Eid, Critical Infrastructure Preparedness: Cascading of Disruptions Considering Vulnerability and Dependency
Franciszek Grabski, Reliability and Maintainability Characteristics in Semi-Markov Models
Kazimierz Kosmowski, Organizational Culture as Prerequisite of Proactive Safety and Security Management in Critical Infrastructure Systems Including Hazardous Plants and Seaports
Jacek Mazurkiewicz, A Repair Time Model of a Web Based System Including Administrator Working Hours
Lauri Ojala, HAZARD Project – Mitigating the Effects of Emergencies in Baltic Sea Region Ports
Athanasios Sfetsos, EU-CIRCLE Project - Strengthening Critical Infrastructure Resilience to Climate Change
Barbara Tchórzewska-Cieślak, Analysis and Assessment Methods of Water Network Failure in Critical Infrastructure Methodology

Training Courses – TC

Joanna Soszyńska Budny, EU-CIRCLE TC 1. Safety of Multistate Ageing Systems
Joanna Soszyńska Budny, EU-CIRCLE TC 2. Modelling Critical Infrastructure Operation Process
Joanna Soszyńska Budny, EU-CIRCLE TC 3. Prediction of Critical Infrastructure Operation Process
Mateusz Torbicki, EU-CIRCLE TC 4. Modelling Climate-Weather Change Process
Ewa Kuligowska, EU-CIRCLE TC 5. Identification of Climate-Weather Change Process
Magdalena Bogalecka, EU-CIRCLE TC 6. Modelling Critical Infrastructure Accident Consequences

Thematic Workshops - TW

Joanna Soszyńska-Budny, Athanasios Sfetsos, EU-CIRCLE TW 1. Baltic Sea Region Critical Infrastructure Networks
Agnieszka Blokus-Roszkowska, Athanasios Sfetsos, EU-CIRCLE TW 2. General Methodology on Critical Infrastructure Safety Aspects
Krzysztof Kołowrocki, Athanasios Sfetsos, EU-CIRCLE TW 3. Modelling, Identification and Prediction of Operation Processes and Safety of Complex Systems
Krzysztof Kołowrocki, Lauri Ojala, HAZARD TW 1. Risk Assessment and Analysis

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