



BOS 2014

XIIITH CONFERENCE

Conference Programme

Polish Operational and Systems Research Society
Warsaw
24-26.09.2014

Registration of participants beginning with 10:00 a.m. on Wednesday, 24 September 2014,

at Palais Staszic

10:30-11:00 a.m. Coffee and tea

11:00-13:00 Plenary opening session; **Room: Mirror Room**

- Introduction to the Conference – representatives of the Polish Academy of Sciences, the Society

- **Plenary lecture 1: Tadeusz Trzaskalik: *Multicriteria decision support. Methods and applications (in Polish)***

- **Plenary lecture 2: Piotr Sienkiewicz: *Theory and engineering of security systems (in Polish)***

Chair: **Janusz Kacprzyk**

13:00-14:00 Lunch

14:15 - 17:15 Parallel sessions in Polish

I. Economy, society, decisions (Chair: Jan Studziński)	II. Methods, techniques, applications (Chair: Tadeusz Trzaskalik)	III. INFORMS Session: Operational research in health care (Chair: Ignacy Kaliszewski)	BOS PhD students session (Chair: Andrzej Myśliński)
<p>Irena Woroniecka-Leciejewicz: <i>Optimum fiscal and monetary strategies in a game with a modified logistic function: simulation analysis</i></p> <p>Tadeusz Witkowski, L. A. Timashova, I. O. Skachko: <i>Portfolio optimization with the help of the fuzzy GMDH</i></p> <p>Ryszard Budziński, Jarosław Becker: <i>Transformation of knowledge sources in the decision support system</i></p> <p>Jerzy Tchórzewski: <i>Domestic electrical Power system as an unmanned factory</i></p> <p>Lucyna Bogdan, Grażyna Petriczek, Jan Studziński: <i>Algorithms of computer dynamic modelling of communal sewage networks</i></p> <p>Aneta Wiktorzak: <i>ICT and students' skills</i></p> <p>Włodzimierz Kuzak, Jan Maciejewski: <i>Applying the 'earned value' methodology to evaluation of advancement of work on projects managed with universal methods</i></p> <p>Round Table Room</p>	<p>M. Drwal, J. Józefczyk: <i>On the existence of equilibrium in data placement game between cache servers</i></p> <p>Tadeusz Witkowski, L. A. Timashova, R. Reznichenko: <i>A model of distribution of profit among partners in a virtual enterprise</i></p> <p>Andrzej Łodziński: <i>Using the multi-criteria optimization to support the selection of joint decision within competitive environment</i></p> <p>Barbara Gładysz: <i>Mixtures of fuzzy variables in the analysis of project duration: a robust approach</i></p> <p>Dorota Kuchta: <i>Time buffers in the open shop problem</i></p> <p>Krzysztof Schiff: <i>Ant algorithm for the maximum clique problem in a special kind of graph</i></p> <p>Krzysztof Schiff: <i>Sudoku solved by the ant algorithm</i></p> <p>Mirror Room</p>	<p>Bogumił Kamiński, SGH: <i>Decyzje na rynku ochrony zdrowia – perspektywa ekonomiczna</i></p> <p>Mariusz Dąbrowski, NFZ: <i>Wycena świadczeń opieki zdrowotnej</i></p> <p>Mateusz Zawisza, SAS Institute Polska: <i>Zastosowanie metod symulacyjnych na rynku ochrony zdrowia przy wykorzystaniu SAS Simulation Studio</i></p> <p>Stanisław Staszic Room</p>	<p>Julia Siderska: <i>System analysis of the IT market in Poland</i></p> <p>Artur Maździarz: <i>Event correlation and root cause analysis using probabilistic approach in mobile telecommunication networks</i></p> <p>Piotr Fronc: <i>Vascular pattern identification in biometric applications</i></p> <p>Tomasz Janczewski: <i>Compression impact analysis on the acceleration of WWW pages loading</i></p> <p>Jacek Chmielewski: <i>Dynamic programming for the R&D sector development</i></p> <p>Kołataj Room</p>

17:30 – 18:50 Joint session IEEE IS'14/BOS (English language)

Applications of intelligent systems I; Chair: Vassia Atanassova

Adriana Gonzalez-Rodriguez, George Panoutsos, Mahdi Mahfouf, Kathryn Beamish: *A Novelty Detection Framework Based on Fuzzy Entropy for a Complex Manufacturing Process*

Yonanda Adhitama, Wolfgang Rosenstiel: *Module Family Design for Modular Product*

Marina Savelyeva, Stanislav Belyakov: *Solution of the Problem Supply Chain Management in Temporal Dependence*

Barbara Maźbic-Kulma, Jan W. Owsiański, Jarosław Stańczak, Aleksy Barski, Krzysztof Sę: *The Park + Ride problem. The hypergraph approach*

Hotel Gromada Centrum („Dom Chłopa”); Room: Rose (Róża)

19:00: Informal Get Together – Hotel Gromada Centrum „Dom Chłopa”

25 September 2014 - Thursday

Hotel Gromada „Dom Chłopa”: collocation with IEEE IS'14 and IWIFSGN (English language)

9:00-9:30 a.m. Opening session

9:30-10:15 a.m. **Plenary lecture: Rudolf Kruse; Room: Mallow (Malwa)**

10:15 – 11:00 a.m. **Plenary lecture: Ronald R. Yager; Room: Mallow (Malwa)**

11:00 – 11:30 a.m. Coffee break

11:30 – 13:10 Parallel sessions

<p>BOS IV. Environment and space (Chair: Andrzej Straszak)</p> <p>Piotr Holnicki: <i>An impact of emission data uncertainty on urban scale air quality forecasts</i></p> <p>Piotr Kopka, A. Wawrzyńczak, M. Borysiewicz: <i>Locating atmospheric contamination source based on the data from Kori field tracer experiment</i></p> <p>Andrzej Kałuszko, Piotr Holnicki, Krystyna Stankiewicz: <i>Air quality management support in the urban area</i></p> <p>Jacek Malinowski: <i>Finding reliability measures for a water supply network by means of component state factorization and series-parallel aggregation</i></p> <p>Jolanta Jarnicka, Zbigniew Nahorski: <i>A model of time evolution of GHG inventory uncertainty applied to selected EU countries</i></p> <p>Room: Wild strawberry (Poziomka)</p>	<p>IEEE IS'14/BOS Classification and Clustering I (Chair: Jan W. Owsiański)</p> <p>Agnieszka Duraj, Danuta Zakrzewska: <i>Effective Outlier Detection Technique with Adaptive Choice of Input Parameters</i></p> <p>Sabrina Mallek, Imen Boukhris, Zied Elouedi: <i>Predicting Proteins Functional Family: A Graph-based Similarity Derived from Community Detection</i></p> <p>Robert Sitarz, Maciej Heneczkowski, Matylda Jablonska-Sabuka, Andrzej Krasławski: <i>Clustering Method for Analysis of Research Fields. Examples of Composites, Nanocomposites and Blends.</i></p> <p>Eslam Ali Hassan, Ahmed Ibrahim Hafez, Aboul Ella Hassanien, Aly A. Fahmy: <i>Community Detection Algorithm Based on Artificial Fish Swarm Optimization</i></p> <p>Marek Antosiewicz, Bogumił Kamiński: <i>Agent rationality behind network formation</i></p> <p>Room: Blackberry (Jagoda)</p>	<p>Parallel sessions of IEEE IS'14 and IWIFSGN meetings</p>
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13:10-14:10 Lunch

14:10-14:55 **Plenary lecture: Ana Maria Gil Lafuente: The role of fuzzy logic in the sustainable economic development modelling; Room: Mallow (Malwa)**

14:55 – 15:40 **Plenary lecture: Helena Lindskog, Staffan Brege, Per-Olof Brehmer: The importance of time divide for e-democracy; Room: Daisy (Stokrotka)**

15:50-16:50: Parallel session

<p>BOS V. Decisions I (Chair: Wiesław Krajewski)</p> <p>Ignacy Kaliszewski, Dymitr Podkopajew, Shih Hsu-Shih: <i>TOPSIS demystified</i></p> <p>Hanna Bury: <i>Cycles in majority voting and how to deal with them. A relational analysis approach</i></p> <p>Leszek Klukowski: <i>Estimation of the partial order on the basis of pairwise comparisons – binary and multivalent – with random errors</i></p> <p>Room: Wild strawberry (Poziomka)</p>	<p>Parallel sessions of IEEE IS'14 and IWIFSGN meetings</p>
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16:50 – 17:20 Coffee break

17:20 – 18:40 Parallel session

<p>BOS VI. Socio-economic systems (Chair: Jan W. Owsiański)</p> <p>David Ramsey, Urszula Markowska-Przybyła: <i>A game theoretical study of generalized trust and reciprocity in Poland. Theory and experimental design</i></p> <p>Krzysztof S. Targiel: <i>Real options in systems approach to development projects</i></p> <p>Grzegorz Kołoch: <i>Value-at-Risk quality validation: practical aspects</i></p> <p>Leszek Klukowski: <i>Application of mathematical programming approach for public debt management</i></p> <p>Room: Wild strawberry (Poziomka)</p>	<p>Parallel sessions of IEEE IS'14 and IWIFSGN meetings</p>
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20:00 - 22:00 Conference dinner

26 September 2014 - Friday	
Hotel Gromada „Dom Chłopa”: collocation with IEEE IS’14 and IWIFSGN (English language)	
9:00-10:00 a.m. Parallel sessions	
Parallel sessions of IEEE IS’14 and IWIFSGN meetings	
10:10 – 10:55 a.m. Plenary lecture: Eyke Huellermeier	
10:55 – 11:40 a.m. Plenary lecture: Plamen Angelov	
11:40-12:10 a.m. <i>Coffee break</i>	
12:10-13:50 Parallel sessions	
<p style="text-align: center;">BOS VII. Decisions and control II (Chair: Lech Kruś)</p> <p>Messaoud Deghdak: <i>Berge equilibrium in discontinuous games</i> Wiesław Krajewski, Umberto Viaro: <i>On robust fractional order PI controller for TCP packet flow</i> K. Pieńkosz: <i>Bin packing with restricted item fragmentation</i> Krzysztof Szkatuła: <i>Some average case analysis results of the maximum set packing problem</i> Piotr Bazydło, Roman Szewczyk: <i>An integrated dynamic weighing system based on SCADA</i></p> <p style="text-align: center;">Room: Rose (Róża)</p>	<p>Parallel sessions of IEEE IS’14 and IWIFSGN meetings</p>
13:50-14:50 Lunch	
14:50 – 15:35 Plenary lecture: Leszek Rutkowski; Room: Mallow (Malwa)	
15:35 – 16:20 Plenary lecture: Enrique Herrera-Viedma; Room: Mallow (Malwa)	
16:20 – 16:50 <i>Coffee break</i>	
16:50 – 18:30 Parallel sessions of IEEE IS’14 and IWIFSGN meetings	
18:40 – 19:00 Closing session	

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