

2012 Federated Conference on Computer Science and Information Systems (FedCSIS)

CONFERENCE REPORT

The 2012 edition of the Federated Conference on Computer Science and Information Systems (FedCSIS; www.fedcsis.org) was held in Wrocław, Poland on September 8-11, 2012.

FedCSIS events were grouped into the following **conference areas** of various degree of events integration; those listed below in italics (and without the superfluous indication of the year 2012) signify "abstract areas" with no direct paper submissions (i.e. paper submissions only within enclosed events).

- **AAIA'2012 - 7th International Symposium Advances in Artificial Intelligence and Applications**
 - AIMA'2012 - International Workshop on Artificial Intelligence in Medical Applications
 - ASIR'2012 - 2nd International Workshop on Advances in Semantic Information Retrieval
 - RSA'2012 - International Workshop on Rough Sets Applications
 - WCO'2012 - Workshop on Computational Optimization
 - WEO-DIA'2012 - 1st Workshop on Well-founded Everyday Ontologies – Design, Implementations & Applications
- **CSNS - *Computer Science & Network Systems***
 - CANA'2012 - Computer Aspects of Numerical Algorithms
 - FINANS'2012 - International Symposium on Frontiers in Network Applications and Network Systems
 - MMA'2012 - International Symposium on Multimedia Applications and Processing
 - WSN'2012 - International Conference on Wireless Sensor Networks
- **ECRM - *Education, Curricula & Research Methods***
 - CSERC'2012 - 2nd Computer Science Education Research Conference
 - ISEC'2012 - Information Systems Education & Curricula Workshop
- **IT4MBS - *Information Technology for Management, Business & Society***
 - ABICT'2012 - International Workshop on Advances in Business ICT

- AITM'2012 - 10th Conference on Advanced Information Technologies for Management
- IT4D'2012 - Information Technology for Disabilities
- IT4L'2012 - Workshop on Information Technologies for Logistics
- KAM'2012 - 18th Conference on Knowledge Acquisition and Management
- TAMoCo'2012 - Techniques and Applications for Mobile Commerce
- **JAWS - *Joint Agent-oriented Workshops in Synergy***
 - ABC:MI'2012 - Workshop on Agent Based Computing: from Model to Implementation
 - MAS&S'2012 - International Workshop on Multi-Agent Systems and Simulation
 - SEN-MAS'2012 - 1st International Workshop on Smart Energy Networks & Multi-Agent Systems
- **SSD&A - *Software Systems Development & Applications***
 - ATSE'2012 - 3rd International Workshop Automating Test Case Design, Selection and Evaluation
 - MDASD'2012 - 2nd Workshop on Model Driven Approaches in System Development
 - WSS'2012 - The 4th International Symposium on Web Services

Furthermore, a tutorial entitled *Semantic Knowledge Engineering for Business Intelligence: concepts and tools* was presented by: Grzegorz J. Nalepa, Antoni Ligęza, Krzysztof Kaczor, Szymon Bobek, Weronika T. Adrian and Krzysztof Kluza from the AGH University of Technology.

The following Keynote Presentations have been delivered:

- Paweł Gepner, Intel Corporation, *Race to Exascale with Intel Architecture*
- Janusz Górski, Gdańsk University of Technology, Poland, *Using Evidence Based Arguments To Support Trust*
- Ana Luisa Nobre Fred, Technical University of Lisbon, Portugal, *Data Mining Using Clustering Ensembles*
- Thad Starner, Georgia Institute of Technology, USA, *Wearable Computing: Through the Looking Glass*

FedCSIS was organized by the Polish Information Processing Society together with the Systems Research Institute Polish Academy of Sciences, the Wrocław University of Economics and the Wrocław University of Technology, under the auspices of Prof. Barbara Kudrycka, Minister of Science and Higher Education, and Prof. Michał Kleiber,

President of Polish Academy of Sciences. Technical co-sponsors of the FedCSIS 2012 conference included: (1) IEEE Region 8, (2) Computer Society Chapter, Poland, (3) Gdańsk Computer Society Chapter, Poland, (4) ACM Special Interest Group on Applied Computing, (5) Łódź ACM Charter, (6) SERSC: Science & Engineering Research Support soCiety, (7) Informatics Europe, (8) Asociación de Técnicos de Informática, (9) The Polish Association for Information Systems, (10) Polish Artificial Intelligence Society, (11) Polish Society for Business Informatics, (12) Polish Chamber of Commerce for High Technology.

Furthermore, in addition to the general FedCSIS technical collaborators, the following organizations were involved in organization of its individual events.

- The International Symposium on Advances in Artificial Intelligence and Applications was technically co-sponsored by: World Federation of Soft Computing, European Society for Fuzzy Logic and Technology, Poland Chapter of the IEEE Computational Intelligence Society, International Fuzzy Systems Association, and Polish Neural Networks Society.
- International Workshop on Rough Sets Applications was technically co-sponsored by: IDSS & GrC Section of the CS Committee, of the Polish Academy of Sciences, and the International Rough Set Society.
- Computer Science Education Research Conference was technically co-sponsored by ACM SIGCSE.
- Workshop on Agent Based Computing: from Model to Implementation IX|, and the 6th International Workshop on Multi-Agent Systems and Simulation, and 1st International Workshop on Smart Energy Networks & Multi-Agent Systems, constituting the Joint Agent Workshops in Synergy (JAWS) focus area were organized in technical cooperation with the EU COST Action IC0801 “Agreement Technologies.”

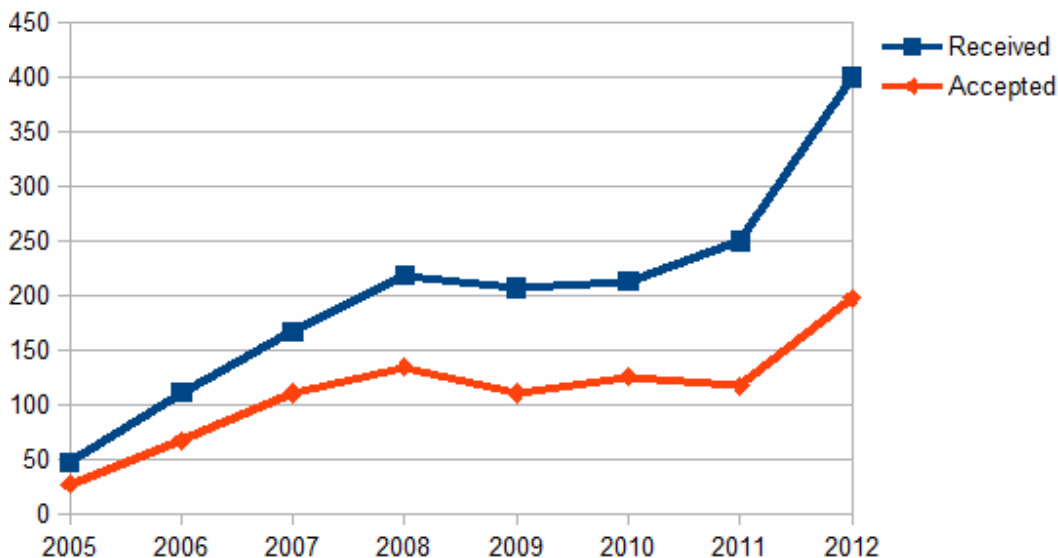
Polish Ministry of Science and Higher Education and Intel have sponsored the conference.

This year's Symposium on Advances in Artificial Intelligence and Applications (AAIA) was devoted to the recognition of work of Prof. Zdzisław Hippe. During the AAIA 2012, the Prof. Zdzisław Pawlak prize for the best paper was awarded for the seventh time. This year the winners were: Ron Adany and Tami Tamir for the paper: *Online Algorithm for Battery Utilization in Electric Vehicles*, as the Best Student Paper, and Andrzej Janusz and Dominik Ślęzak for the paper: *Utilization of Attribute Clustering Methods for Scalable Computation of Reducts from High-Dimensional Data* as the Best Paper. These awards were sponsored by the Polish Information Processing Society. Furthermore, the International Fuzzy Systems Association Awards for Young Scientist were presented to:

Juan Carlos Figueroa-García for the paper: *An Approximation Method for Type Reduction of an Interval Type-2 Fuzzy Set Based on A-cuts*, and to Cristiano Nattero, Massimo Paolucci, Davide Anghinolfi, Fulvio Mastrogiovanni and Giorgio Cannata for the paper: *Experimental Analysis of Different Pheromone Structures in an Ant Colony Optimization Algorithm in Robotic Skin Design*. These awards were financially sponsored by the International Fuzzy Systems Association.

English was the exclusive conference language. In 2012, FedCSIS attracted 400 papers. Out of submitted contributions, after refereeing by at least two reviewers each, 195 articles were accepted as full papers (acceptance rate of 48.75%), and 14 articles were accepted as short papers. Out of 209 texts accepted for publication, 75 articles (36%) came from Poland, while the remaining 134 (64%) from abroad (representing almost 50 countries from all continents). The conference attracted more than 290 participants.

The following figure represents the growth of the FedCSIS conference, since 2005 when it started as a Scientific Session within the Autumn Meeting of the Polish Information Processing Society, through years 2006-10 when it was run under the name International Multiconference on Computer Science and Information Systems (IMCSIT), and 2011-12 when the current name and formula have been adopted.



Conference materials were published on USB Pen Drives (as pre-Proceedings). After the conference, papers from all FedCSIS events but CSERC, will be included in the IEEE Digital Library (ISBN 978-83-60810-48-4, IEEE Catalog Number CFP1285N-ART). The CSERC workshop is going to publish its own Proceedings in the ACM Digital Library. This way all FedCSIS contributions will be made available in two of three biggest repositories of academic publications in computer science – assuring a worldwide reach. Furthermore, Proceedings of FedCSIS in their final version (together with CSERC pre-

Proceedings) will be posted at the conference WWW site (joining Proceedings of past conferences). It should be stressed that only papers presented in the conference are going to be included in the IEEE / ACM Digital Libraries.

In a similar way as in the past, best papers accepted at FedCSIS (their modified and extended versions) will be published in Special Issues of international journals, such as: Applied Artificial Intelligence (ISI indexed), LNCS Transactions on Rough Sets (Springer), Volume in the Springer series Studies in Computational Intelligence, LNCS Transactions on Computational Collective Intelligence, Bulletin of Institute of Automation and Robotics (Biuletyn Instytutu Automatyki i Robotyki WAT), Informatica, IJCSA: International Journal of Computer Science & Applications, Studia Informatica Universalis and in the Journal of Information, Management and Control Systems, Knowledge and Information Systems (KAIS), Springer Series: Advances in Intelligent Systems and Computing / Studies in Computational Intelligence, Logistics and Transport, ComSIS journal (ISI indexed).

Each year the acceptance rate for texts published in post-conference Special Issues of international journals is below 30%.

Submitted by the FedCSIS Conference Series Chairs,

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