2017 Federated Conference on Computer Science and Information Systems (FedCSIS)

CONFERENCE REPORT

The 2017 edition of the Federated Conference on Computer Science and Information Systems (FedCSIS; www.fedcsis.org) was held in Prague, Czech Republic on September 3-6, 2017. FedCSIS 2017 was hosted by the Faculty of Information Technology of the Czech Technical University in Prague (CTU). This year, FedCSIS was organized by the Polish Information Processing Society (Mazovia Chapter), IEEE Poland Section Computer Society Chapter (C-16), Systems Research Institute Polish Academy of Sciences, Warsaw University of Technology, Wrocław University of Economics and Czech Technical University in Prague. Intel, Profinit, and Abra have sponsored the conference.

FedCSIS consists of multiple events that are grouped into **thematic areas**, characterized by various degree of integration between constituting events. Areas that are listed below without the indication of the year ('17) signify "abstract areas" with no direct paper submissions (i.e. paper submissions have been made available only to individual events that belong to them).

- **AAIA'17 - 12th International Symposium Advances in Artificial Intelligence and Applications**
    - AIMA'17 - 7th International Workshop on Artificial Intelligence in Medical Applications
    - AIRIM'17 - 2nd International Workshop on AI aspects of Reasoning, Information, and Memory
    - ASIR'17 - 7th International Workshop on Advances in Semantic Information Retrieval
    - JAWS'17 - 11th Joint Agent-oriented Workshops in Synergy
    - LTA'17 - 2nd International Workshop on Language Technologies and Applications
    - WCO'17 - 10th International Workshop on Computational Optimization
- *CSS - Computer Science & Systems*
    - CANA'17 - 10th Workshop on Computer Aspects of Numerical Algorithms
    - C&SS'17 - 4th International Conference on Cryptography and Security Systems
    - CPORA'17 - 2nd Workshop on Constraint Programming and Operation Research Applications
    - MMAP'17 - 10th International Symposium on Multimedia Applications and Processing
    - WAPL'17 - 6th Workshop on Advances in Programming Languages
    - WSC'17 - 9th Workshop on Scalable Computing
- *iNetSApp - International Conference on Innovative Network Systems and Applications*
    - INSERT'17 - 1st International Conference on Security, Privacy, and Trust

- o IoT-ECAW'17 - 1st Workshop on Internet of Things - Enablers, Challenges and Applications
  - o WSN'17 - 6th International Conference on Wireless Sensor Networks
- **IT4MBS - Information Technology for Management, Business & Society**
  - o AITM'17 - 15th Conference on Advanced Information Technologies for Management
  - o ISM'17 - 12th Conference on Information Systems Management
  - o IT4L'17 - 5th Workshop on Information Technologies for Logistics
  - o KAM'17 - 23rd Conference on Knowledge Acquisition and Management
- **SSD&A - Software Systems Development & Applications**
  - o IWCPS'17 - 4th International Workshop on Cyber-Physical Systems
  - o LASD'17 - 1st International Conference on Lean and Agile Software Development
  - o MIDI'17- 4th Conference on Multimedia, Interaction, Design and Innovation
  - o SEW-37 - The 37th IEEE Software Engineering Workshop
- **DS-RAIT'17 - 4th Doctoral Symposium on Recent Advances in Information Technology**

During the FedCSIS 2017 conference, the following Keynote Lectures have been delivered:

- Giancarlo Guizzardi (Free University of Bolzano-Bozen, Italy), *Carving Reality at its Digital Joints: The Role of Ontology-Driven Conceptual Modeling in Next-Generation Information Systems Engineering*

- Marjan Mernik (University of Maribor, Slovenia), *Domain-Specific Languages: A Systematic Mapping Study*

- Zbigniew Michalewicz (Complexica, Australia), *When AI meets Big Data*

- Peter Palensky (Delft University of Technology, The Netherlands), *Modeling and Simulation of Intelligent Electrical Power Grids*

- Jan Vitek (Northeastern University, USA), *Data Analysis for the Masses*

FedCSIS 2017 was Chaired by prof. Pavel Tvrdik, while Prof. Jan Janousek acted as the Chair of the Organizing Committee.

Technical co-sponsors of the FedCSIS 2017 conference included: IEEE Computer Society, IEEE Region 8, IEEE Chechoslovakia Section, IEEE Poland Section, IEEE Computer Society Technical Committee on Intelligent Informatics, IEEE Czechoslovakia Section Computer Society Chapter, IEEE Poland Section (Gdansk) Computer Society Chapter, IEEE SMC Technical Committee on Computational Collective Intelligence, IEEE Poland Section Systems, Man, and Cybernetics Society Chapter, IEEE Poland Section Control System Society Chapter, Poland Section Computational Intelligence Society Chapter, ACM Special Interest Group on Applied Computing, Lodz (Poland) ACM Chapter, IFIP, Committee of Computer Science of Polish Academy of Sciences, Polish Operational and

Systems Research Society, Eastern Cluster ICT Poland, Polish Cluster of Research and Development of Internet of Things, Mazovia Cluster ICT.

Within the framework of the AAIA'17 Symposium, the AAIA'17 Data Mining Challenge "Helping AI to Play Hearthstone" was organized. This year, 188 teams (from 296 registered), from 28 countries, actively took part in the competition, delivering 114 solution reports. The winner of the competition was Łukasz Grad from Warsaw University (Department of Mathematics, Informatics and Mechanics), Poland, second place went to Quang Hieu Vu (Data Science Group, Zalora, Sinagapore), Ling Cen (EBTIC, Khalifa University) and Dymitr Ruta (Data Science Group, Zalora, Sinagapore), while the third place was awarded to Evgeny Patekha (Russia). Awards for the winners were sponsored by: Silver Bullet Solutions and the Mazovia Chapter of the Polish Information Processing Society.
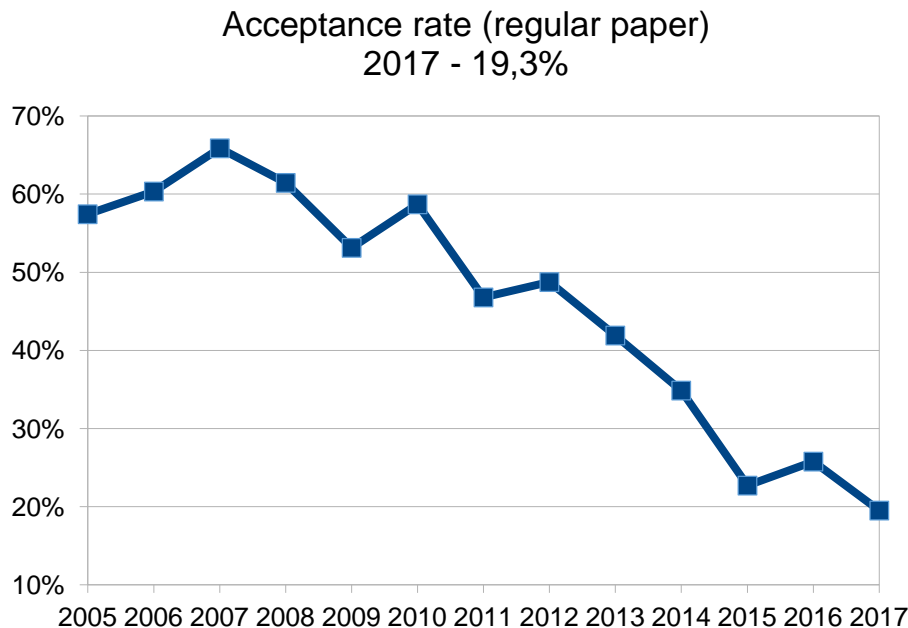
During the AAIA 2017, the Professor Zdzisław Pawlak Prize for the best paper was awarded for the 12th time. This year the winners were: Jens Dörpinghaus, Sebastian Schaaf, Juliane Fluck, Marc Jacobs (Best Paper) for the paper entitled: "Document Clustering using a Graph Covering with Pseudostable Sets". By the decision of the Award Committee two Student Paper Distinctions were awarded. They went to Maciej Laszczyk who co-authored the paper entitled "Co-Evolutionary Algorithm solving Multi-Skill Resource-Constrained Project Scheduling Problem" and Krzysztof Wołk and Agnieszka Wolk who co-authored the paper "Big Data Language Model of Contemporary Polish". Awards for the winners were co-sponsored by the Mazovia Chapter of the Polish Information Processing Society.

English was the exclusive conference language. In 2017, the FedCSIS conference attracted 497 submissions. Out of submitted contributions, after obtaining at least two reviews for each paper, 96 articles were accepted as regular full papers (acceptance rate of 19,31%), 96 articles were accepted as regular short papers, 26 as regular communication papers, and 46 as position papers. Out of these papers, approximately 27% came from Poland and 73% from other (45) countries.

Conference materials were initially published on USB pen drives (as Preprints) and distributed to conference participants. After the conference, full and short papers were submitted to the IEEE Digital Library (ISBN Web 978-83-946253-7-5, ISBN USB 978-83-946253-8-2, ISBN Art 978-83-946253-9-9, IEEE Catalog Number CFP1785N-ART (ART), CFP1785N-USB (USB), ISSN 2300-5963); furthermore, they will be sent to the Clairvate Web of Science for indexing. Position Papers and Communication Papers were published as separate volumes (ISSN 2300-5963, Position Papers ISBN Web 978-83-922646-0-6, ISBN USB 978-83-922646-1-3, Communication Papers ISBN Web 978-83-922646-2-0,

ISBN USB 978-83-922646-3-7). Moreover, Proceedings, Position Papers and Communication Papers of the FedCSIS 2017 Conference (in their final version) were posted at the conference WWW site – available through the Archive section of the www.fedcsis.org web-site (alongside the Proceedings from **all** past conferences). It should be stressed that **only** papers presented in the conference were published in either form (the FedCSIS conference series strictly adheres to the "IEEE No-show Policy").

The figure below represents the acceptance rate for regular full papers. It contains data starting from 2005, when the conference series started as a Scientific Session organized 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 2011-17 when the current name and formula have been adopted.

Acceptance rate (regular paper)
2017 - 19,3%

Respectfully submitted by the FedCSIS Conference Series Chairs,

Maria Ganzha,

Leszek Maciaszek,

Marcin Paprzycki