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Faculty of Organization and Informatics

September 19th - 21st, 2018
Varaždin, Croatia

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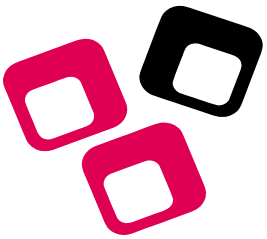

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Preface

The Central European Conference on Information and Intelligent Systems (CECIIS) has been annually held since 1989. International participants, program committee and reviewers have promoted CECIIS to the most important conference in the area of applied information science in Central Europe. These are also prerequisites for referring the CECIIS Book of Proceedings to prominent databases. The Conference and its accompanying events are certainly the most significant scientific event organized by the Faculty of Organization and Informatics of the University of Zagreb. From the early beginnings to the present, the main aim of CECIIS is to foster the cooperation among researchers involved in the development and application of methods and techniques in the field of information and intelligent systems. The special topic of this year's conference is digital transformation, a comprehensive business transformation that seeks out all the advantages and opportunities of contemporary digital technologies and their impact on society.

The Proceedings of CECIIS 2018 include 28 scientific papers, each peer-reviewed by two independent reviewers and approved by the international Program Committee within the following sections: Computer Games, Data and Knowledge Bases, Education and Learning Analytics, Emerging Trends in ICT, ICT Entrepreneurship and Innovation, Intelligent Information Systems, Quality of Software and Services, Software Engineering, Strategic Planning and Decision Making. After the conference, the selected papers are further reviewed by two independent international reviewers with the aim to include the best papers in the Journal of Organizational and Information Sciences (JIOS), the international scientific journal published by the Faculty of Organization and Informatics.

The poster and presentation section for students organized within CECIIS gathered students from Croatia (Varaždin), USA (Cincinnati and Pittsburgh) and Albania (Shkodër). The poster abstracts are published separately on-line. The special value of this year's conference were the outstanding invited lectures held by two esteemed researchers:

- Dimitris Karagiannis (University of Vienna, Faculty of Computer Science, Vienna, Austria) - The impact of digitization on industry: a research perspective
- Dieter Hertweck (Reutlingen University, Faculty of Computer Science, Herman Hollerith Research Centre, Reutlingen, Germany) - The Digital Transformation in the manufacturing sector - Challenges and Chances for SMEs

Furthermore, several parallel events were held:

- 2nd Workshop on Data Analysis
- professional tracks: Digital Transformation of Educational Institutions
  Computer Games - Professional Development
- e-Schools Day - presentations and workshops of the national project "e-Schools: Establishing a System for Developing Digitally Mature Schools (pilot project)"
- project presentations - e-Schools, HigherDecision, CRISS, DIGITRANS and ISSES
- CECIIS 2018 conference sponsors' events.

We would like to express our kind gratitude to the invited speakers, authors, reviewers, session chairs, attendees, organizers of parallel events, as well as Program and Organizing Committee members for their contributions. We acknowledge that the organizational and supporting assistance and hosting of the Faculty of Organization and Informatics was crucially important for the overall success of the Conference. Finally, we are most grateful to all our business partners and sponsors for their support.

We believe that the following pages will provide you with relevant and interesting papers in the field of information and intelligent systems and we look forward to your participation in one of many CECIIS conferences to come.

September, 2018

On the behalf of the
Program and Organizing Committees

Vjeran Strahonja and Valentina Kirinić

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