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Dimitar Trajanov · Verica Bakeva (Eds.)

ICT Innovations 2017

Data-Driven Innovation

9th International Conference, ICT Innovations 2017
Skopje, Macedonia, September 18–23, 2017
Proceedings

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Preface

The ICT Innovations 2017 conference created and managed a vibrant environment, where participants shared the latest discoveries and best practices, and learned about data-driven innovation. The conference promoted the development of models, methods, and instruments of data science and provided a unique environment for the presentation and discussion of new approaches and prototypes in the field.

ICT Innovations conferences are organized by the Association for Information and Communication Technologies (ICT-ACT), whose mission is the advancement of ICT technologies. The main co-organizer and supporter of the 9th International ICT Innovations conference was the Faculty of Computer Science and Engineering and Ss. Cyril and Methodius University in Skopje, Macedonia.

The special conference topic was “data-driven innovation”. Data-driven innovation forms a key pillar in the 21st-century sources of growth. The confluence of several trends, including the increasing migration of socio-economic activities to the Internet and the decline in the cost of data collection, storage, and processing, are leading to the generation and use of huge volumes of data. These large datasets are becoming a core asset in research and economics, fostering new discoveries, new industries, new processes, and new products. Data innovation is happening everywhere. It is transforming how and what people purchase, and how they communicate and collaborate. In response, data and analytics are being used to motivate radical new business models and disrupt traditional industry structures. Outperforming organizations will be those that make data and analytics central to their innovation processes, as well as to the innovation itself. Data promises to provide the input for creative endeavors and new ideas. But the importance of data and analytics will transcend ideation and inspiration. The conference also focused on a variety of ICT fields like: big data analytics, cloud computing, data mining, digital signal processing, e-health, embedded systems, emerging mobile technologies, multimedia, Internet of Things, machine learning, software engineering, security and cryptography, coding theory, wearable technologies, wireless communication, sensor networks, and other related topics.

The ICT Innovations 2017 received 90 submissions from 232 authors coming from 22 different countries. All these submissions were peer reviewed by the ICT Innovations 2017 Program Committee consisting of 260 high-quality researchers coming from 56 different countries. In order to assure a high-quality and thoughtful review process, we assigned each paper to more than five reviewers, resulting in 5.1 average assigned reviewers per paper, and at the end of the review process, there were 4.26 reviews per paper. Based on the results from the peer reviews, 26 full papers were accepted, resulting in a 28.8% acceptance rate, which was within our goal of less than 30%.

ICT Innovations 2017 was held in Skopje at two locations, the Hotel Aleksandar Palace and the Faculty of Computer Science and Engineering, during September 18–23, 2017.

We would like to express sincere gratitude to the invited speakers for their inspirational talks, to the authors for submitting their work to this conference, and the reviewers for sharing their experience during the selection process. Special thanks to Aleksandra Popovska Mitrovik, Vladimir Zdraveski, and Milos Jovanovik for their technical support during the conference and their help during the preparation of the conference proceedings.

September 2017

Dimitar Trajanov
Verica Bakeva

Organization

ICT Innovations 2017 was organized by the Association for Information and Communication Technologies (ICT-ACT).

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