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Big Data Innovations and Applications

5th International Conference, Innovate-Data 2019 Istanbul, Turkey, August 26–28, 2019 Proceedings



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Preface

Welcome to the proceedings of the 5th International Conference on Big Data Innovations and Applications (Innovate-Data 2019), which was held during August 26–28, 2019, in Istanbul, Turkey. The Innovate-Data 2019 conference was co-located with the International Conference on Future Internet of Things and Cloud (FiCloud-2019), the International Conference on Mobile Web and Intelligent Information Systems (MobiWis-2019), the International Conference on Deep Learning and Machine Learning in Emerging Applications (DEEP-ML 2019), and different workshops and symposia.

Big data has become a new trend in modern information technology and has been transforming various domains and disciplines including business, finance, science, education, the public sector, health care, life style and society as a whole. For instance, businesses can exploit big data in order to improve customer relationships and to serve customers in an efficient and effective way. Big data tools can also help in cost and time savings as they can analyze data efficiently and make quick decisions.

The concept of big data revolves not only around the size but how the data can be efficiently collected, processed, and analyzed in order to achieve the desired goals. The aim of the Innovate-Data conference is to solicit research and development work in order to further improve the underlying models, methods, and tools of big data and to find new ways of using big data in current and future applications. The Innovate-Data 2019 conference included interesting and timely topics such as: big data storage, representation, and processing; data engineering and design; big data security, privacy, and trust; big data models, infrastructure, and platforms; visualization of big data; big data analytics and metrics; and the overall applications and innovations of big data and related technologies.

In response to the call for papers, Innovate-Data 2019 received submissions from different countries across the world. Each paper was reviewed by multiple reviewers. Based on the reviews, 16 papers were accepted for the technical program, that is, an acceptance rate of 33%. The accepted papers address interesting research and practical issues related to big data processing and applications, big data analytics, big data security, privacy and trust, machine/deep learning and big data, and the use of big data in innovative applications.

We express our thanks to the members of the Organizing and Program Committees for helping in the organization and the review process of the research papers. Their timely and useful feedback to authors of the submitted papers is highly appreciated. We would also like to thank all authors for their contributions to Innovate-Data 2019. Putting together such an interesting technical program would not have been possible without the support from the technical committees and the authors.

We sincerely thank Prof. William Knottenbelt (General Chair) for his help and support. We would like to thank Dr. Filipe Portela (Workshop Coordinator), Dr. Fang-Fang Chua (Publicity Chair), Dr. Lin Guan (Journal Special Issue Coordinator), and Prof. Irfan Awan (Publication Chair). We sincerely appreciate the contributions of the local organizing chairs, Dr. Perin Ünal, Teknopar, Dr. Tacha Serif, and Dr. Sezer Gören Uğurdağ, for their help and support in the organization of the conference.

Innovate-Data 2019 and the co-located conferences had joint keynote and invited sessions in which interesting talks were delivered. We sincerely thank the speakers Prof. Pierangela Samarati (Università degli Studi di Milano, Italy), Mr. Gökhan Büyükdığan (Arçelik A.S., Turkey), and Dr. Soumya Kanti Datta (EURECOM, France).

Our sincere thanks also go to the Springer CCIS team for their valuable support in the production of the conference proceedings.

August 2019

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