

Jianchao Zeng · Pinle Qin ·  
Weipeng Jing · Xianhua Song ·  
Zeguang Lu (Eds.)

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# Data Science

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of Pioneering Computer Scientists,  
Engineers and Educators, ICPCSEE 2021  
Taiyuan, China, September 17–20, 2021  
Proceedings, Part II

Part 2

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7th International Conference  
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# Preface

As the program chairs of the 7th International Conference of Pioneer Computer Scientists, Engineers and Educators 2021 (ICPCSEE 2021, originally ICYCSEE), it is our great pleasure to welcome you to the conference proceedings. ICPCSEE 2021 was held in Taiyuan, China, during September 17–20, 2021, and hosted by the North University of China and the National Academy of Guo Ding Institute of Data Science, China. The goal of this conference series is to provide a forum for computer scientists, engineers, and educators.

This year's conference attracted 256 paper submissions. After the hard work of the Program Committee, 81 papers were accepted to appear in the conference proceedings, with an acceptance rate of 31%. The major topic of this conference series is data science. The accepted papers cover a wide range of areas related to basic theory and techniques for data science including mathematical issues in data science, computational theory for data science, big data management and applications, data quality and data preparation, evaluation and measurement in data science, data visualization, big data mining and knowledge management, infrastructure for data science, machine learning for data science, data security and privacy, applications of data science, case studies, multimedia data management and analysis, data-driven scientific research, data-driven bioinformatics, data-driven healthcare, data-driven management, data-driven eGovernment, data-driven smart city/planet, data marketing and economics, social media and recommendation systems, data-driven security, data-driven business model innovation, and social and/or organizational impacts of data science.

We would like to thank all the Program Committee members, a total of 215 people from 102 different institutes or companies, for their hard work in completing the review tasks. Their collective efforts made it possible to attain quality reviews for all the submissions within a few weeks. Their diverse expertise in each research area helped us to create an exciting program for the conference. Their comments and advice helped the authors to improve the quality of their papers and gain deeper insights.

We thank Lanlan Chang and Jane Li from Springer, whose professional assistance was invaluable in the production of the proceedings. A big thanks also to the authors and participants for their tremendous support in making the conference a success.

Besides the technical program, this year ICPCSEE offered different experiences to the participants. We hope you enjoyed the conference.

July 2021

Pinle Qin  
Weipeng Jing

# Organization

The 7th International Conference of Pioneering Computer Scientists, Engineers and Educators (<http://2021.icpcsee.org>) was held in Taiyuan, China, during September 17–20, 2021, and hosted by the North University of China and the National Academy of Guo Ding Institute of Data Science, China.

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