

Smart Innovation, Systems and Technologies

Volume 88

Series editors

Robert James Howlett, Bournemouth University and KES International,
Shoreham-by-sea, UK

e-mail: rjhowlett@kesinternational.org

Lakhmi C. Jain, University of Canberra, Canberra, Australia;

Bournemouth University, UK;

KES International, UK

e-mails: jainlc2002@yahoo.co.uk; Lakhmi.Jain@canberra.edu.au

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Sajal K. Das · Nabendu Chaki
Editors

Algorithms and Applications

ALAP 2018

 Springer

Editors

Sajal K. Das
Department of Computer Science
Missouri University of Science
and Technology
Rolla, MO
USA

Nabendu Chaki
Department of Computer Science
and Engineering
University of Calcutta
Kolkata, West Bengal
India

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Preface

The first International Conference on Algorithms and Applications (ALAP 2018) was held on January 10–12, 2018, at B. P. Poddar Institute of Management and Technology (BPPIMT), Kolkata, India. The technical program was organized in three focus areas or tracks—VLSI and Embedded Systems, Distributed Systems and Security, and Big Data and Analytics. The tracks were chaired by Prof. Kolin Paul (IIT Delhi) and Prof. Kamalika Datta (NIT Meghalaya) for VLSI and Embedded Systems; Prof. Pradip K. Das (formerly Jadavpur University) for Distributed Systems and Security; and Dr. Arijit Mukherjee (TCS Research) for Big Data and Analytics.

Thanks to the sincere effort of the conference stakeholders, in the very first year of its existence, ALAP 2018 attracted a modest 36 submissions. A thorough peer-review process carried out by the program committee members and reviewers mainly looked at the novelty of the contributions, besides the technical content and clarity of the presentation. The Technical Program Committee eventually identified only 6 papers for publication out of 36 submissions, resulting in the competitive acceptance ratio of 16.6%. The technical program also included several keynote and invited talks by eminent speakers from industry and academia, and pre-conference tutorials by different research groups at TCS Innovation and CDAC–Kolkata.

The overall quality of ALAP 2018 marks the success of the conference in bringing excellent researchers working in the broad domain of Algorithms and Applications into a common forum for exchanging ideas toward achieving greater scientific goals.

The conference would not have been successful without tremendous help and support of many individuals. We extend our heartfelt gratitude to the Track Chairs for their leadership in making a successful technical program. We also thank the members of the Program Committee for their excellent and time-bound review work. We are grateful to the management of BPPIMT for their warm patronage and support to make the event a great success. Our special thanks to Prof. Sutapa Mukherjee (Principal, BPPIMT) for her inspiring presence throughout the event, and Prof. B. N. Chatterji (Dean, BPPIMT) and Prof. Indranil Sengupta (IIT Kharagpur) for their critical roles as not only General Chairs of ALAP 2018, but

also toward conceptualizing the conference and helping us since the first meeting held in early 2017. We appreciate the role of Prof. Ananya Kanjilal as Organizing Chair for ALAP 2018. She and her colleagues took care of every detail that ensured the success of the conference.

We appreciate the initiative and support of Mr. Aninda Bose and his colleagues at Springer Nature for their strong support toward publishing this volume. Finally, we thank all the authors and participants without whose presence and support the conference would not have reached the expected standards.

Rolla, USA
Kolkata, India
April 3, 2018

Sajal K. Das
Nabendu Chaki

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About the Editors

Sajal K. Das is a Professor of Computer Science and Daniel St. Clair Endowed Chair at Missouri University of Science and Technology, USA, where he was Computer Science Department Chair from 2013 to 2017. Prior to 2013, he was a University Distinguished Scholar Professor of Computer Science and Engineering at UT Arlington, USA. He also served as an NSF Program Director during 2008–2011. His research interests include IoT, big data analytics, security, cloud computing, wireless sensor networks, mobile and pervasive computing, cyber-physical systems and smart environments, biological and social networks, and applied graph theory. He has directed high-profile, funded projects and published over 700 papers in journals and conference proceedings. He holds 5 US patents and has co-authored 52 chapters and 4 books. A recipient of 10 best paper awards, he has also received numerous awards for teaching, mentoring, and research including IEEE Computer Society Technical Achievement Award for pioneering contributions to sensor networks and mobile computing. He is the founding editor-in-chief of the Pervasive and Mobile Computing Journal and associate editor of several other journals. He is an IEEE fellow.

Nabendu Chaki is a Professor at the Department of Computer Science and Engineering, University of Calcutta, Kolkata, India. He shares seven international patents including four US patents. In addition to nearly 30 edited volumes with Springer, he has authored 7 text and research books and more than 150 Scopus Indexed research papers in journals and at international conferences. He has been a visiting professor at various institutions, including Naval Postgraduate School, USA; Ca' Foscari University, Italy; and AGH University of Science and Technology, Poland. He is the Founder Chair of the ACM Professional Chapter in Kolkata and served in that capacity for 3 years from January 2014. During 2009–2015, he was active in developing several international standards in software engineering and service science as a global (GD) member of ISO-IEC.