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Bibudhendu Pati · Chhabi Rani Panigrahi
Sudip Misra · Arun K. Pujari
Sambit Bakshi
Editors

Progress in Advanced Computing and Intelligent Engineering

Proceedings of ICACIE 2017, Volume 1

Springer

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Preface

This volume contains the papers presented at 2nd International Conference on Advanced Computing and Intelligent Engineering (ICACIE) 2017: The 2nd International Conference on Advanced Computing and Intelligent Engineering (www.icacie.com) held during 23–25 November 2017 at the Central University of Rajasthan, India. There were 618 submissions and each qualified submission was reviewed by a minimum of two Technical Program Committee members using the criteria of relevance, originality, technical quality, and presentation. The committee accepted 109 full papers for oral presentation at the conference and the overall acceptance rate is 18%.

ICACIE 2017 was an initiative taken by the organizers which focuses on research and applications on topics of advanced computing and intelligent engineering. The focus was also to present state-of-the-art scientific results, to disseminate modern technologies, and to promote collaborative research in the field of advanced computing and intelligent engineering.

Researchers presented their work in the conference and had an excellent opportunity to interact with eminent professors, scientists and scholars in their area of research. All participants were benefitted from discussions that facilitated the emergence of innovative ideas and approaches. Many distinguished professors, well-known scholars, industry leaders, and young researchers were participated in making ICACIE 2017 an immense success.

We had also industry and academia panel discussion and we invited people from software industries like TCS, Infosys, and DRDO.

We thank all the Technical Program Committee members and all reviewers/sub-reviewers for their timely and thorough participation during the review process.

We express our sincere gratitude to Honourable Vice Chancellor and General Chair, Prof. Arun K. Pujari, Central University of Rajasthan to allow us to organize ICACIE 2017 on the campus and for his valuable moral and timely support. We also thank Prof. A. K. Gupta, Dean Research for his valuable guidance. We appreciate the time and efforts put in by the members of the local organizing team at Central University of Rajasthan, especially the faulty members of different departments, student volunteers, administrative, account section, guest house

management and hostel management staff, who dedicated their time and efforts to make ICACIE 2017 successful. We thank Mr. Subhashis Das Mohapatra, System Analyst, C.V. Raman College of Engineering, Bhubaneswar for designing and maintaining ICACIE 2017 Website.

We are very grateful to all our sponsors, especially DRDO for its generous support towards ICACIE 2017.

Bhubaneswar, India	Bibudhendu Pati
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Rourkela, India	Sambit Bakshi

About This Book

The book focuses on theory, practice and applications in the broad areas of advanced computing techniques and intelligent engineering. This two volumes book includes 109 scholarly articles, which have been accepted for presentation from over 618 submissions in the 2nd International Conference on Advanced Computing and Intelligent Engineering held at Central University of Rajasthan, India during 23–25 November, 2017. The first volume of this book consists of 55 numbers of papers and volume 2 contains 54 papers with a total of 109 papers. This book brings together academic scientists, professors, research scholars and students to share and disseminate their knowledge and scientific research works related to advanced computing and intelligent engineering. It helps to provide a platform to the young researchers to find the practical challenges encountered in these areas of research and the solutions adopted. The book helps to disseminate the knowledge about some innovative and active research directions in the field of advanced computing techniques and intelligent engineering, along with some current issues and applications of related topics.

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About the Editors

Dr. Bibudhendu Pati is Associate Professor Department of Computer Science at Rama Devi Women's University, Bhubaneswar, India. He has around 21 years of experience in teaching and research. His areas of research interests include Wireless Sensor Networks, Cloud Computing, Big Data, Internet of Things, and Advanced Network Technologies. He completed his Ph.D. from IIT Kharagpur. He is a Life Member of Indian Society for Technical Education, Computer Society of India and Senior Member of IEEE. He has got several papers published in reputed journals, conference proceedings, and books of international repute. He also served as Guest Editor of IJCNDS and IJCSE journals. He was the General Chair of ICACIE 2016, ICACIE 2018 and IEEE ANTS 2017 international conference.

Dr. Chhabi Rani Panigrahi is Assistant Professor in the Department of Computer Science at Rama Devi Women's University, Bhubaneswar, India. She completed her Ph.D. in the Department of Computer Science and Engineering, Indian Institute of Technology Kharagpur, India. Her areas of research interests include Software Testing and Mobile Cloud Computing. She holds 17 years of teaching and research experience. She has published several international journals and conference papers. She is a Life Member of Indian Society for Technical Education (ISTE) and Member of IEEE and Computer Society of India (CSI). She also served as Guest Editor of IJCNDS and IJCSE journals. She was the Organizing Chair of ICACIE 2016, ICACIE 2017, ICACIE 2018, and WiE Co-chair of IEEE ANTS 2017 and IEEE ANTS 2018.

Dr. Sudip Misra is Professor in the Department of Computer Science and Engineering at the Indian Institute of Technology Kharagpur. Prior to this he was associated with Cornell University (USA), Yale University (USA), Nortel Networks (Canada) and the Government of Ontario (Canada). He received his Ph. D. degree in Computer Science from Carleton University, in Ottawa, Canada. He has several years of experience working in the academia, government, and the private sectors. His current research interests include Wireless Sensor Networks, Internet of Things (IoT), Software Defined Networks, Cloud Computing, Big Data

Networking, Computer Networks. Dr. Misra is the author of over 260 scholarly research papers, including 150+ reputed journal papers. Dr. Misra has published 9 books in the areas of Advanced Computer Networks.

Prof. Arun K. Pujari faculty and Dean of the School of Computer and Information Sciences at the University of Hyderabad (UoH) and has been appointed as the Vice-Chancellor of the Central University of Rajasthan. Professor Pujari has earlier served as the Vice-Chancellor of Sambalpur University, Odisha in 2008. Professor Pujari got his Ph.D. from IIT-Kanpur in 1980. He has more than 15 years' experience as Dean and Head of Department. He has served as a member of high-level bodies such as UGC, DST, DRDO, ISRO and AICTE. Professor Pujari has over 100 publications to his credit and has wide exposure in national and international arena. His two books published are *Data Mining Techniques* and *Database Management System*.

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