

Kanubhai K. Patel
Gayatri Doctor
Atul Patel
Pawan Lingras (Eds.)

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Soft Computing and its Engineering Applications

Third International Conference, icSoftComp 2021
Changa, Anand, India, December 10–11, 2021
Revised Selected Papers

 Springer

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Preface

It is a matter of great privilege to have been tasked with the writing of this preface for the proceedings of the 3rd International Conference on Soft Computing and its Engineering Applications (icSoftComp 2021). The conference aimed to provide an excellent international forum to the researchers, academicians, students, and professionals in the areas of computer science and engineering to present their research, knowledge, new ideas, and innovations. The theme of the conference was “Soft Computing Techniques for Sustainable Development”. The conference was held during December 10–11, 2021, at Charotar University of Science and Technology (CHARUSAT), Changa, India, and organized by the Faculty of Computer Science and Applications, CHARUSAT.

There are three pillars of soft computing, viz., i) fuzzy computing, ii) neuro computing, and iii) evolutionary computing. Research submissions in these three areas were received. The Program Committee of icSoftComp 2021 is extremely grateful to the authors from 17 different countries, including the USA, Poland, Russia, Turkey, United Arab Emirates, Denmark, Mauritius, Saudi Arabia, South Africa, Nigeria, Ecuador, Libya, Taiwan, Bangladesh, Ukraine, and UK, who showed an overwhelming response to the call for papers, submitting over 247 papers. The entire review team (the Technical Program Committee members along with three additional reviewers) expended tremendous effort to ensure fairness and consistency during the selection process resulting in the best quality papers being selected for presentation and publication. It was ensured that every paper received at least three, and in most cases four, reviews. Similarity checks were also performed based on the international norms and standards.

After a rigorous peer review process, 33 papers were accepted giving an acceptance rate of 13.36%. The papers are organized according to the following topics: Theory and Methods and Systems and Applications. The proceedings of the conference are published as one volume in the Communications in Computer and Information Science (CCIS) series by Springer, and are also indexed by WoS, dblp, Ulrich’s, Ei Compendex, Scopus, zbMATH, Metapress, and SpringerLink. We, in our capacity as volume editors, convey our sincere gratitude to Springer for providing the opportunity to publish the proceedings of icSoftComp 2021 in their CCIS series.

icSoftComp 2021 provided an excellent international virtual forum to the conference delegates to present their research, knowledge, new ideas, and innovations. The conference exhibited an exciting technical program. It also featured high-quality workshops, a keynote, and six expert talks from prominent research and industry leaders. The keynote speech was given by V. Susheela Devi (Principal Research Scientist, Indian Institute of Science Bangalore, India). Experts talks were given by Ashish Ghosh (Indian Statistical Institute Kolkata, India), Shailesh Kumar (Chief Data Scientist, Center of Excellence in AI/ML, Reliance Jio, Hyderabad, India), Massimiliano Cannata (University of Applied Sciences and Arts of Southern Switzerland, Switzerland), Vishnu Pendyala (San José State University, USA), Kiran Trivedi (Vishwakarma Government Engineering College, India), and Pritpal Singh (Jagiellonian University, Poland). We are grateful to them for sharing their insights on their latest research with us.

The Organizing Committee of icSoftComp 2021 is indebted to R V Upadhyay, Provost of Charotar University of Science and Technology and Patron, for the confidence that he invested in us in organizing this international conference. We would also like to take this opportunity to extend our heartfelt thanks to the honorary chairs of this conference, Kalyanmoy Deb (Michigan State University, USA), Janusz Kacprzyk (Polish Academy of Sciences, Poland), and Leszek Rutkowski (Czestochowa University of Technology, Poland) for their active involvement from the very beginning until the end of the conference. The quality of a refereed volume primarily depends on the expertise and dedication of the reviewers who volunteer with a smiling face. The editors are further indebted to the Technical Program Committee members and external reviewers who not only produced excellent reviews but also did so in a short time frame, in spite of their very busy schedules. Because of their quality work it was possible to maintain the high academic standard of the proceedings. Without their support, this conference could never have assumed such a successful shape. Special words of appreciation are due to note the enthusiasm of all the staff and students of the Faculty of Computer Science and Applications of CHARUSAT, who organized the conference in a professional manner.

It is needless to say that the conference would not have been possible without the contributors. The editors would like to take this opportunity to thank the authors of all submitted papers for not only their hard work but also for considering the conference a viable platform to showcase some of their latest findings, not to mention their adherence to the deadlines and patience with the tedious review process. Special thanks to the team of OCS, whose paper submission platform was used to organize reviews and collate the files for these proceedings. We also wish to express our thanks to Amin Mobasher (Springer Heidelberg) for his help and cooperation. We gratefully acknowledge the financial (partial) support received from the Department of Science and Technology, Government of India, and the Gujarat Council on Science and Technology (GUJCOST), Government of Gujarat, Gandhinagar, India, for organizing the conference. Last but not least, the editors profusely thank all who directly or indirectly helped us in making icSoftComp 2021 a grand success and allowed for the conference to achieve its goal, academic or otherwise.

December 2021

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