Smart Innovation, Systems and Technologies

Volume 206

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Biplab Das · Ripon Patgiri ·
Sivaji Bandyopadhyay ·
Valentina Emilia Balas
Editors

Modeling, Simulation and Optimization

Proceedings of CoMSO 2020

Springer

Editors
Biplab Das
Department of Mechanical Engineering
National Institute of Technology
Silchar, Assam, India

Sivaji Bandyopadhyay
National Institute of Technology Silchar
Silchar, India

Ripon Patgiri
Department of Computer Science
and Engineering
National Institute of Technology Silchar
Silchar, Assam, India

Valentina Emilia Balas
Aurel Vlaicu University of Arad
Arad, Romania

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Preface

National Institute of Technology Silchar, India, has organized an International Conference on Modeling, Simulation and Optimization (CoMSO 2020) during August 3–5, 2020. CoMSO is a premier annual international forum for Modeling, Simulation and Optimization researchers, Scientist, practitioners, application developers, and users. CoMSO 2020 conference aims to bring together researchers around the world to exchange research results and address open issues in all aspects of Modeling, Simulation and Optimization. CoMSO 2020 is an outstanding platform to discuss the key findings, exchanging novel ideas, listening to world class leaders and sharing experiences with peer groups. The conference provides the opportunities of collaboration with national and international organizations of repute to the research community. CoMSO 2020 witnessed a large number of participants and submissions from worldwide.

CoMSO 2020 is organized virtually due to unavoidable situations all over the world. The conference aimed to consider unpublished original research works in the six different fields like: (i) Computational Simulation and Modeling; (ii) System Modeling and Simulation; (iii) Device/VLSI modeling and simulation (iv) Control Theory and Applications; (v) Optimization and its applications; and (vi) Modeling and simulation of the energy system. Apart from 61 accepted and presented papers, seven nos of internationally renowned speakers like Prof. Rajkurmar Buyya; Prof. Kalyanmoy Deb; Prof. Yanchook Choe, Prof. Uday S. Dixit; Prof. Tanmay Basak, Dr. Rituparna Dutta and Dr. Balaji Raghavan have shared their experience with the participants. This conference proceedings will be able to disseminate high quality research results in the relevant fields.

Silchar, India — Dr. Biplab Das
Silchar, India — Dr. Ripon Patgiri
Silchar, India — Prof. Sivaji Bandyopadhyay
Arad, Romania — Prof. Valentina Emilia Balas

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About the Editors

Dr. Biplab Das is presently working as an Assistant Professor in the Department of Mechanical Engineering, National Institute of Technology Silchar, India. Dr. Das completed his Ph.D. from NERIST, Itanagar, India, in the year of 2014. Later, he pursued his postdoctoral research from University of Idaho, USA. He is the recipient of the prestigious Bhaskara Advance Solar Energy (BASE) Fellowship from IUSSTF and DST, Government of India. He is also awarded with "DBT Associateship" by the Department of Biotechnology, Government of India. He has 12+ years of experience in teaching and research and published more than 60 nos. of refereed international/national journal/conference papers. Presently, Dr. Das is actively involved in 08 nos. of ongoing sponsored projects to develop a solar thermal system for North East India, worth 0.268 billion INR, sponsored by SERB, DST, Ministry of Power, and the Ministry of Climate Change, Government of India. He is guiding 06 nos. of Ph.D. scholars. He has ongoing research activities in collaboration with Jadavpur University, India, IIT Guwahati, India, University of Idaho, USA, and Ulster University, UK.

Dr. Ripon Patgiri is an Assistant Professor at the Department of Computer Science & Engineering, National Institute of Technology Silchar. He has received his Ph.D. degree from National Institute of Technology Silchar. He has seven years of teaching and research experiences. Moreover, he has rich experiences in organizing conferences. He has published several journal articles, conference papers and book chapters. Also, he is editing several books. He is a senior member of IEEE.

Prof. Sivaji Bandyopadhyay is Director of National Institute of Technology Silchar since December 2017. He is a Professor of the Department of Computer Science & Engineering, Jadavpur University, India, where he has been serving since 1989. He is attached as Professor, Computer Science and Engineering Department, National Institute of Technology Silchar. He has more than 300 publications in reputed journals and conferences. He has edited two books so far. His research interests are in the area of natural language processing, machine translation, sentiment analysis and medical imaging among others. He has

organized several conferences and has been the Program Committee member and Area Chair in several reputed conferences. He has completed international funded projects with France, Japan and Mexico. At the national level, he has been the Principal Investigator of several consortium mode projects in the areas of machine translation, cross-lingual information access and treebank development. At present, he is the Principal Investigator of an Indo-German SPARC project with University of Saarlandes, Germany, on Multimodal Machine Translation and the Co-PI of several other international projects.

Prof. Valentina Emilia Balas is currently Full Professor in the Department of Automatics and Applied Software at the Faculty of Engineering, "Aurel Vlaicu" University of Arad, Romania. She holds a Ph.D. in Applied Electronics and Telecommunications from Polytechnic University of Timisoara. Dr. Balas is author of more than 300 research papers in refereed journals and international conferences. Her research interests are in intelligent systems, fuzzy control, soft computing, smart sensors, information fusion, modeling and simulation. She is the Editor-in-Chief to the International Journal of Advanced Intelligence Paradigms (IJAIP) and to International Journal of Computational Systems Engineering (IJCSysE), Editorial Board member of several national and international journals and is evaluator expert for national and international projects and Ph.D. Thesis. Dr. Balas is the Director of Intelligent Systems Research Centre in Aurel Vlaicu University of Arad and Director of the Department of International Relations, Programs and Projects in the same university. She served as General Chair of the International Workshop Soft Computing and Applications (SOFA) in eight editions 2005–2020 held in Romania and Hungary. Dr. Balas participated in many international conferences as Organizer, Honorary Chair, Session Chair and member in Steering, Advisory or International Program Committees. She is a member of EUSFLAT, SIAM, a senior member of IEEE, member in TC – Fuzzy Systems (IEEE CIS), Chair of the TF 14 in TC – Emergent Technologies (IEEE CIS), and member in TC – Soft Computing (IEEE SMCS). Dr. Balas was past Vice-President (Awards) of IFSA International Fuzzy Systems Association Council (2013–2015) and is a Joint Secretary of the Governing Council of Forum for Interdisciplinary Mathematics (FIM), A Multidisciplinary Academic Body, India.