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Janusz Kacprzyk, Polish Academy of Sciences, Warsaw, Poland
e-mail: kacprzyk@ibspan.waw.pl

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Preface

Machine learning and signal processing are widely used approaches for solving real-world problems. Machine learning is a revolutionizing domain of public research which involves optimization and signal processing techniques. It is an interdisciplinary paradigm which covers a lot of areas of science and engineering. In order to provide better solutions, advanced signal processing techniques with optimal machine learning solutions are required. In the recent years, the techniques related to signal processing and machine learning have been frequently used for biomedical applications.

This book presents some important applications and improvements in the areas of machine learning and signal processing. The whole book is organized into 64 chapters. The focuses of these chapters are feature extraction, time–frequency analysis, classification, and the diagnosis of various diseases. This book also includes some review on biomedical application related to various kinds of diseases such as neurological disorders and different types of cancers. The introductory material presented in these chapters gives future direction to interested researchers involved in these interdisciplinary domains. In brief, this book motivates the young researchers to involve and pursue research in these interdisciplinary areas of machine intelligence and signal processing.

We hope that the papers contained in this proceedings will prove helpful toward improving the understanding of machine learning and signal processing at the teaching and research levels and will inspire researchers to work in these interdisciplinary domains.

Indore, India
April 2018

M. Tanveer
Ram Bilas Pachori

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Milind Padikar, Vehant Technologies, Noida, India

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About the Editors

Dr. M. Tanveer is Assistant Professor and Ramanujan Fellow at the Discipline of Mathematics, Indian Institute of Technology Indore, India. Prior to that, he worked as Postdoctoral Research Fellow at Rolls-Royce@NTU Corporate Lab, Nanyang Technological University (NTU), Singapore. He served as Assistant Professor at the Department of Computer Science and Engineering, LNM Institute of Information Technology (LNMIIT), Jaipur, India. He received his Ph.D. degree in Computer Science from the Jawaharlal Nehru University, New Delhi, India, and his M.Phil. degree in Mathematics from Aligarh Muslim University, Aligarh, India. His research interests include support vector machines, optimization, applications to Alzheimer's disease and dementias, biomedical signal processing, and fixed-point theory and applications. He has been awarded competitive research funding by various prestigious agencies such as Department of Science and Technology (DST), Council of Scientific and Industrial Research (CSIR), and Science and Engineering Research Board (SERB). He is the recipient of 2017 SERB Early Career Research Award in Engineering Sciences and the only recipient of 2016 prestigious DST-SERB Ramanujan Fellowship in Mathematical Sciences. He is a member of the editorial review board of Applied Intelligence, Springer (International Journal of Artificial Intelligence, Neural Networks, and Complex Problem-Solving Technologies). He has published over 24 papers in reputed international journals.

Dr. Ram Bilas Pachori received his B.E. degree with honors in Electronics and Communication Engineering from Rajiv Gandhi Proudyogiki Vishwavidyalaya, Bhopal, India, in 2001; M.Tech. and Ph.D. degrees in Electrical Engineering from the Indian Institute of Technology (IIT) Kanpur, India, in 2003 and 2008, respectively. He worked as Postdoctoral Fellow at Charles Delaunay Institute, University of Technology of Troyes, France, during 2007–2008. He served as Assistant Professor at Communication Research Center, International Institute of Information Technology, Hyderabad, India, during 2008–2009. He served as Assistant Professor at Discipline of Electrical Engineering, IIT Indore, India, during 2009–2013. He worked as Associate Professor at Discipline of Electrical Engineering, IIT Indore, Indore, India, during 2013–2017 where presently he has

been working as Professor since 2017. He worked as Visiting Scholar at Intelligent Systems Research Center, Ulster University, Northern Ireland, UK, during December 2014. His research interests are in the areas of biomedical signal processing, non-stationary signal processing, speech signal processing, signal processing for communications, computer-aided medical diagnosis, and signal processing for mechanical systems. He has more than 125 publications which include journal papers, conference papers, book, and chapters.