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## Preface

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**Biographical notes:** Dinesh Kumar, BTech from IIT Madras and PhD from IIT Delhi, is a Professor at RMIT University, Melbourne, Australia. He has published over 400 papers, authored five books and is on a range of Australian and international committees for biomedical engineering. His passion is for affordable diagnostics and making a difference for his students. His work has been cited over 5600 times and he has also had multiple successes with technology translation. He is a member of Therapeutics Goods Administration (TGA) Ministry of Health (Australia) for medical devices. He is also on the editorial boards for *IEEE Transactions of Neural Systems and Rehabilitation Engineering* and *Biomedical Signals and Controls*. He has been the chair of a large number of conferences and given over 50 keynote speeches.

Shruti Jain is an Associate Professor in the Department of Electronics and Communication Engineering at Jaypee University of Information Technology, Wahnaghat, HP, India and has received her DSc in electronics and communication engineering. She has teaching experience of around 15 years. She has filed three patents, of which one is granted and one is published. She has published more than nine book chapters, and 100 research papers in indexed journals and in international conferences. She has also published six books. Her research interests are image and signal processing, soft computing, bio-inspired computing and computer-aided design of FPGA and VLSI circuits. She is a senior member of IEEE, life member and Editor-in-Chief of the Biomedical Engineering Society of India, and a member of IAENG. She is a member of TPC of different conferences. She was awarded the Nation Builder Award in 2018–19.

Amit Kumar Manocha is presently working as an Associate Professor in Electrical Engineering Department and Director of Punjab Institute of Technology, Moga (a constituent college of Maharaja Ranjit Singh Punjab Technical University, Bathinda), Punjab, India. He is author of more than 50 research papers in refereed journals, international and national conferences. He has successfully organised five international conferences in the capacity of Conference Chair, Convener, and Editor of Conference Proceedings, and more than 25 workshops and seminars. He participated in many international conferences as Advisory Committee member, Session Chair, and member of Technical Committee. He is a member of editorial boards for many international journals. His area of research includes biomedical instrumentation, remote monitoring and control systems. He has guided more than 10 Master dissertations and five PhDs.

Ram Sewak Singh did his Bachelor's degree in Electronics and Communication Engineering from Roorkee Engineering College, India, in 2003, and MTech in Electronics & Communication Engineering from National Institute of Technology (NIT) Kurukshetra in 2009. He completed his PhD from National Institute of Technology (NIT) Jalandhar in 2019. He has worked as Assistant Professor in IMS Engineering College, UP, India. Currently, he is working as an Assistant Professor in Electronics & Communication Engineering Department, School of Electrical & Computing Engineering, Adama Science & Technology University, Adama, Ethiopia. He was awarded the Haryana Young Scientist award in 2008. He has published more than 25 research papers in international journals (SCI and Scopus) and nine in national and international conferences. He is a member of the ICEIT Society. He is an editorial board member of *International Journal of Engineering and Applied Sciences*. His current research interests include wireless sensors and bio-signal processing (prediction, detection of cardiovascular diseases using machine learning and spectral, nonlinear, and chaos features).

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Intelligent healthcare systems include patients, hospital management, doctors, monitoring, diagnosis, decision-making modules, and disease prevention to meet the challenges and problems in the healthcare industry. The advanced healthcare systems need to be upgraded with new capabilities to provide humans with more intelligent and professional healthcare services to further improve the quality of services and user experience. The objective of this special issue is to provide the researchers with a platform to present the state-of-the-art innovations, research design and methodological and algorithmic solutions related to intelligent healthcare services and applications. This special issue is intended to explore the recent advances, solutions and techniques related to the intelligent healthcare sector. The aim of publishing the issue is to serve for educators, researchers, and developers working in recent advances and upcoming technologies using computational sciences in signal and image processing, computing, biomedical instrumentation, artificial intelligence, internet of health things, data analytics, disease detection, tele-monitoring and e-health and their applications. As the issue includes recent trends in research issues and applications in healthcare, thus the contents will be beneficial to professors, researchers, practitioners, and engineers working in this field. This will

provide support and aid to researchers involved in the design and implementation of the latest algorithms in healthcare systems that will permit the societal acceptance of ambient intelligence.

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