
Editorial

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Hung Nguyen received the BE degree (with First Class Honours and University Medal) and the PhD degree from the University of Newcastle, Newcastle, Australia, in 1976 and 1980, respectively. He is Dean of the Faculty of Engineering and Information Technology at the University of Technology, Sydney (UTS), Professor of Electrical Engineering and Director of the Centre for Health Technologies at UTS. He has been involved with research in the areas of Biomedical Engineering, Advanced Control and Artificial Intelligence for more than 20 years. He has developed several biomedical devices and systems for diabetes, disability, cardiovascular diseases and breast cancer. He was Engineering Manager of Power Electronics from 1988–1998, Founding and Executive Director of AIMedics Pty Ltd from 2001–2006 and Associate Dean (Research and Development) in the Faculty from 2003–2009. He is a Fellow of the Institution of Engineers, Australia and The British Computer Society.

H.K. Lam received the BEng., (Hons.) and PhD degrees from the Department of Electronic and Information Engineering, The Hong Kong Polytechnic University, Hong Kong, in 1995 and 2000, respectively. From 2000–2005, he was a Postdoctoral Fellow and a Research Fellow with the Department of Electronic and Information Engineering, The Hong Kong Polytechnic University, respectively. In 2005, he joined King's College London, London, UK as a Lecturer and currently is a senior lecturer. He is the co-editor of two edited volumes: *Control of Chaotic Nonlinear Circuits* (World Scientific, 2009) and *Computational Intelligence and Its Applications* (World Scientific, 2012). He is the co-author of the research monograph *Stability Analysis of Fuzzy-Model-Based Control Systems* (Springer, 2011). His current research interests include fuzzy-model-based control and computational intelligence. He is an Associate Editor for *IEEE Transaction on Fuzzy Systems*, *International Journal of Fuzzy Systems*, *Journal of Intelligent Learning Systems and Applications*; area editor for *International Journal of Intelligent Systems Science and Technology*; editor board member for *IET Control Theory and Applications*, *Journal of Applied Mathematics, Modelling and Simulation in Engineering*, *Annual Review of Chaos Theory, Bifurcations and Dynamical Systems* and *The Open Cybernetics and Systemics Journal*. He has served as a guest editor, advisory board member, program committee member for various International Conferences and a reviewer for a number of Books, International Journals and International Conferences. He is an IEEE senior member.

Health Technologies research brings together complementary interdisciplinary research skills, in the development of innovative medical devices and biotechnology processes for health technology applications. The focus of this issue is on the study of health and disease processes, and the development of new medical devices and advanced biotechnology applications for early detection, diagnosis, treatment and rehabilitation of lifestyle diseases such as cardiovascular disease, diabetes mellitus, neurological disorder, cancer, etc. The scope of this session includes neural computation, fuzzy systems, support vector machines, evolutionary computation, swarm intelligence, and other computational intelligence methods or hybridisation computational intelligence approaches. Applications of these computational intelligence methods to health technologies are the main focus of this special issue.

The field of interest of this special issue is the application of the concepts and methods of the computational intelligence in health technologies. This covers very broad biomedical applications, and we are soliciting contributions on the following: estimation of sleepiness; analysis of heart rate dynamics; model of cardiovascular system; cancer diagnosis; nasal and mouth breathing discrimination; and medical image processing.