
Editorial

Jing Na*

Faculty of Mechanical and Electrical Engineering,
Kunming University of Science and Technology,
No. 727 Jingming South Road, Kunming, 650500, China
Email: najing25@163.com

*Corresponding author

Youcef Soufi

Department of Electrical Engineering,
University Larbi Tebessa,
Route de Constantine, Tebessa, 12002, Algeria
Email: y_soufi@yahoo.fr

Yue Ma

Faculty of Mechanical I Engineering,
Beijing Institute of Technology (BIT),
Zhonguancun South Road, Beijing, 100081, China
Email: rmcynicism@bit.edu.cn

Chenguang Yang

College of Engineering,
Swansea University,
Fabian Way, Crymlyn Burrows,
Swansea, SA1 8EN, UK
Email: cyang@theiet.org

Biographical notes: Jing Na is a Professor at the Faculty of Mechanical and Electrical Engineering, Kunming University of Science and Technology, China. He received his BSc and PhD from Beijing Institute of Technology, China, in 2004 and 2010, respectively. From 2011 to 2013, he was a Postdoctoral Fellow with the ITER Organization, France. From 2015 to 2017, he was a Marie Curie Fellow with University of Bristol, UK. His research interests include intelligent control, adaptive parameter estimation, neural networks, nonlinear control and applications. He was a recipient of the Best Application Paper Award of 2013 IFAC ICONS, and the 2017 Hsue-shen Tsien Paper Award.

Youcef Soufi received his BEng in 1991 and Doctorate from the University of Annaba, Algeria in Electrical Engineering. Since 2000, he has been with the Department of Electrical Engineering, Laboratory of Electrical Engineering at the University Larbi Tebessi, Tebessa, Algeria, where he is currently an Associate Professor in Electrical Engineering. His main and current major research interests include renewable energy, electrical machine control, power electronics and drives. He has published and co-authored more than 80 technical papers in scientific journals and conference proceedings since 2000. He is a member of the editorial board of five journals, and a member of technical program committees, international advisory boards and international steering committees of many international conferences.

Yue Ma obtained his MSc in Vehicle Engineering from the BIT in 2002 and PhD from University of the West of England, UK, in 2010. He is the committee member of Youth Chapter, Organization of Aviation Utility Systems Engineering (AUS-CSAA), Chinese Society of Aeronautics and Astronautics, member of Institute of Electrical and Electronics Engineers (MIEEE) and editor board member of *International Journal of Modelling, Identification and Control*. His main research interest includes ground vehicle system modelling, dynamics and control of the complex mechanical and electrical systems, such as unmanned ground-aerial vehicles, electrical mechanical transmission and hybrid vehicles.

Chenguang Yang received his BEng in Measurement and Control from the Northwestern Polytechnical University, Xi'an, China, in 2005, and PhD in Control Engineering from the National University of Singapore, Singapore, in 2010. He received his postdoctoral training from

the Imperial College London, London, UK. His research interests lie in robotics and automation. He was the recipient of the Best Paper Award from the IEEE Transactions on Robotics and a number of international conferences.

With the rapid development of information science and intelligent manufacturing techniques, many industries have undergone great changes, where the production equipment and industrial processes are becoming more complex, such as sustainable energy, intelligent manufacturing, robotics, mining and metallurgy, etc. For these industry oriented applications, electrical-mechanical systems have been widely adopted. To make such systems with mechanical, hydraulic and piezoelectric actuators, power transmission and other electromechanical devices work properly, the modelling, identification and control (MIC) has always been essential. In fact, MIC has been proved as a multidisciplinary subjective and useful methodology to tackle the challenging problems encountered in the application of electrical-mechanical systems. During the past few decades, innumerable efforts have been made by the research community towards the modelling and control of electrical-mechanical systems, while there still are certain issues to be further investigated. Hence, this special issue presents advanced methodologies and techniques related to modelling, identification, signal processing and control, which bridge theoretical studies and applications in all engineering and science branches. It provides an international forum for professionals, academics, and researchers over the world to share latest developments from interdisciplinary theoretical studies, computational algorithm developments and applications.

After a thorough reviewing process, in this special issue of the *International Journal of Modelling, Identification and Control (IJMIC)*, we are delighted to accept nine research articles on modelling and control for electrical-mechanical systems. The papers cover various aspects of modelling and control methodologies and applications, with specific application to electrical-mechanical systems for aerial vehicles, spacecraft, robotics and wind turbines, etc. They mainly address challenging issues in modelling, parameter estimation, calibration and control designs of these realistic engineering plants, by further investigating both well-known and recently emerging techniques, e.g., Kalman filter, system identification, dynamic programming, neural network, disturbance observer, fault tolerance analysis and so on.

The guest editors would like to thank all the authors for submitting their manuscripts to this special issue. We would also like to acknowledge the reviewers for their contributions in reviewing the papers and providing constructive comments that help authors to improve the papers. Finally, the guest editors would like to thank Prof. Quan Min Zhu (the Editor-in-Chief of *IJMIC*) for his consistent support, which makes the publication of this special issue possible in such a short period.