Special Section on:

**Modeling, Analysis and Advanced Control on Motion Control Systems**

**Precision, Agility, Robustness, Efficiency and Intelligence** are now becoming the design indexes for modern industrial control systems. Because high control performances, intelligent functions, or efficiency improvements advance the level of control systems and bring a lot of benefits for companies. As for quite a lot of motion control systems, nonlinearities, frictions, complex internal dynamics, time-varying parameters, external disturbances and complex work tasks make control design a very challenging work for research academics and practicing engineers. To employ advanced control algorithms and schemes, time/frequency domain modeling, system identification, observation for unmeasured states, estimation for pivotal parameter and the corresponding analyses are often necessary. To provide the possibility of advanced control applications, it is also often necessary that the control designers build test hardware platforms and implement the proposed sophisticated algorithms in the test hardware platforms.

This special section is aimed to research academics and practicing engineers of the industrial electronics community to present their most recent findings related to digital control systems in motion control systems. Topics of interest of this Special Section must represent original material that has been neither submitted to, nor published in, any other journal and include various advanced modeling, analysis and control techniques for motion control systems with experimental verifications, but are not limited to:

- Time/frequency domain modeling, structure/parameter identification for motion control systems
- Model information based optimization for motion control systems
- Foreign-object detection for dynamic wireless EV charging
- Adaptive/intelligent control design for motion control systems
- Self-adjustment of control parameter for motion control systems, etc.

**Manuscript Preparation and Submission**


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**Corresponding Guest Editor**
Prof. Shihua Li
School of Automation
Southeast University
Si Pai Lou 2, 210096 Nanjing, China
EMAIL: lsh@seu.edu.cn

**Guest Editor**
Dr. Lennart Harnefors
ABB, Corporate Research
Forskargränd 7, Västeras, Sweden
EMAIL: lennart.harnefors@se.abb.com

**Guest Editor**
Prof. Makoto Iwasaki
Dept. of Computer Sci. & Engineering
Nagoya Institute of Technology
Nagoya 4688555, Japan
EMAIL: iwasaki@nitech.ac.jp

Special Section email: SSmaacmcs@ieee-ies.org
Submission management email: tie-submissions@ieee-ies.org

**Timetable**

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Editor in Chief: Prof. Carlo Cecati, University of L’Aquila, 67100 L’Aquila, I, EMAIL: tie@ieee-ies.org URL: [http://tie.ieee-ies.org](http://tie.ieee-ies.org)