

Call for Papers: FITEE Special Section on “Model-Driven Software Development for Cyber-Physical Systems”

Extended Submission Deadline: April 30, 2020 (hard deadline now)

Cyber-Physical Systems (CPS) emerged from embedded systems and distributed networks of control systems. They are now combined with Internet of Things (IoT), Cloud Computing, and Artificial Intelligence (AI), and form an integration of computing, communication, intelligent control, data analysis, and smart services. Development of CPS is regarded as a key enabling technology of Industry 4.0, with applications in the (inter-related) domains of transportation, energy, water, agriculture, medical and assistive technology, sensor and social networks, robotics, smart cities, ecology, and supply-chains. The design, implementation, and evolution of CPS encounter many challenges, including, but not limited to, the following:

- uncertainties due to ever changing requirements and execution environments;
- complex and open system architecture for horizontally composing with (sub-)CPS of different domains and for vertically for monitoring, coordinating, and orchestrating lower layers of data and services;
- management and control of heterogeneous resources of software, hardware, network, continuous physical processes, and even humans for their optimal uses in the execution of application tasks;
- interoperable integration of software systems developed in different paradigms and architecture styles;
- refinement, verification, simulation, and composition of models of hybrid components and mobile components;
- continuous evolution, ubiquitous connectivity, requirements of safety, security, and privacy.

It is believed that model-driven development is an effective and systematic method that allows CPS to be designed, implemented, validated, verified, and integrated based on building models. The purpose of this special session is to promote research and practice of theoretical foundations and engineering methods in the design and analysis of CPS and their software. We solicit submission worldwide for research papers, surveys of the state-of-the-art and case studies on **theories, techniques, tools, and experiments** of model-driven development of embedded systems and CPS.

All submitted manuscripts must be written in English and must not be under consideration elsewhere for publication. Guidelines for authors are available at <http://www.jzus.zju.edu.cn/manuscript.php>. Either Word or **LaTeX format (the latter is highly recommended)** is acceptable. When Word is used, the layout of the text should be in single column, 1.5 lines spacing, 10.5 pt font size, and Times New Roman font. A template is available at http://www.jzus.zju.edu.cn/download/FITEE_LaTex_template.zip. Submissions are made via <http://www.editorialmanager.com/zusc/> **under the type “S.S.-MDCPS”**.

FITEE is an international peer-reviewed journal launched by the Chinese Academy of Engineering (CAE) and Zhejiang University, and co-published by Springer & Zhejiang University Press. FITEE aims to publish the latest implementation of applications, principles, and algorithms in the broad area of Electrical and Electronic Engineering. All articles will undergo international peer review and crosscheck processes before they are accepted to ensure high quality.

Important Dates

- Manuscript submission: **April 30, 2020**
- Acceptance notification: **July 15, 2020**
- Publication date: **August 31, 2020**

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