IEEE Transactions on Sustainable Computing Special Issue on Sustainable Cyber-Physical Systems

Cyber-physical system (CPS) addresses the close interactions and feedback controls between cyber components and physical components, where cyber components refer to the sensing and communication systems, while the physical components comprise of a wide range of systems in practice. CPS is expected to play a major role in the development of next-generation smart energy systems and data centers. Innovative computational methodologies such as green and energy efficient cyber-physical system design have become critical to enable the sustainable development of such systems. These technologies can be used to tackle various sustainability challenges, such as the reduction of energy induced from the large scale data center computing infrastructures, the improvement of computational efficiency in smart energy systems and connected vehicle systems, and the exploration of the renewable energy resources to mitigate classical energy usages. This special issue will present the state-of-the-art research results on the topic of sustainable computing for CPS, and stimulate researchers to participate in the related interdisciplinary research. The topics of interests for this special issue include, but are not limited to:

- Algorithms and optimizations for sustainable CPSs
- Architectural frameworks for sustainable CPSs
- Resource managements in sustainable CPSs
- Computational methodologies for cyber-physical smart energy systems
- Sustainable CPSs with renewable energy integration
- Energy modeling and optimizations for sustainable energy systems and data centers
- Reliability in sustainable CPSs
- Security and privacy in sustainable CPSs
- Emerging computational technologies and platforms for sustainable CPSs

Submission Instructions

This special issue solicits original works not under consideration for publication in any other conference or journal. Authors need to prepare the manuscripts according to the guideline of *IEEE Transactions on Sustainable Computing* at https://www.computer.org/web/tsusc/author Authors should submit their papers through the online manuscript portal system http://mc.manuscriptcentral.com/tsusc-cs and select this special issue. For more information, please contact the Guest Editor Shiyan Hu at shiyan@mtu.edu

Important Dates

~~October 15~~ November 15, 2016: Deadline for paper submissions

January 15, 2017: First round review decisions

March 15, 2017: Deadline for revised manuscripts

April 15, 2017: Second round review decisions

May 15, 2017: Deadline for revised manuscripts

June 15, 2017: Notification of final decisions

July 15, 2017: Publication materials due

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