

*IET Cyber-Physical Systems:
Theory & Applications*
Call for Papers



SPECIAL ISSUE ON:

**Cyber-Physical Power Systems: Advanced
Intelligent Technologies and Applications**

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With the spread of information & communication technologies (ICTs) and cyber and internet technologies, power systems are progressively evolving into Cyber-Physical Power Systems (CPPS). CPPS are emerging technologies characterised by major industrial and societal impacts which, in turn, require significant research developments in areas related to the deep integration of smart grid and information systems. The straight use of standard ICTs may not work for CPPSs since here, we need to take into account the tight coupling between cyber and physical systems. Therefore, the interdependency of the power system and its associated cyber properties should be investigated. It appears that advanced intelligent technologies must be developed to deal with challenges arising from multiple time-scales, the presence of uncertainty and the existence of reliability concerns and security issues related to power systems. It is expected that these intelligent technologies can improve power system performance in terms of security, efficiency, reliability and, last but not least, make a strong economic impact.

This Special Issue aims to gathering research material so as to crystallise state-of-the-art research on CPPS technologies and their applications.

The areas of interest include, but are not limited to:

- Computational intelligence techniques for CPPS
- Intelligent substation technologies of CPPS
- Intelligent and optimal operation of CPPS
- Intelligent control of CPPS
- Interaction mechanism analysis of CPPS
- Fault detection and diagnosis of CPPS
- Renewable energy integration for CPPS
- Power market and energy management of CPPS
- Testing and measurement technologies of CPPS
- CPPS based smart grid infrastructures
- Big data application in CPPS
- New frameworks, algorithms, tools and devices for CPPS
- Co-simulation testbeds/platforms for CPPS

All papers must be submitted through the journal's Manuscript Central system:
<http://mc.manuscriptcentral.com/iet-cps>

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