

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

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SPECIAL ISSUE ON:
Verification and Validation of Cyber-Physical Systems

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Applications of Cyber-Physical Systems (CPS) are rising in our day-to-day lives, as well as in both critical and non-critical industries. Irrespective of their application domains and associated criticality levels, it is crucial to make sure that CPS are behaving safely and reliably in every conceivable situation. Verification and Validation (V&V) activities offer the necessary means to establish the confidence that CPS will operate in a predictable, safe and reliable manner. Special characteristics of CPS such as complexity, heterogeneity, close interaction with their physical environment, use of information networks for communication, and high demands on extra-functional properties present new challenges for V&V of CPS. This special issue solicits latest research results on the V&V of Cyber-Physical Systems.

Topics of interest:

- V&V of requirements, architectures, and designs
- Model checking of CPS
- Formal verification of CPS
- Semi-automated testing of CPS
- Testing under uncertainty
- Extra-functional testing including, but not limited to performance, security or safety testing
- Model-based testing
- Search-based testing
- Test optimization including single and multi-objective test optimization
- Assurance and certification of CPS
- Empirical evaluations
- Industrial applications
- V&V of CPS in diverse domains including, but not limited to automotive, smart grids, smart factories, healthcare, oil and gas, robotics, and the maritime sector

Submit your paper to manuscript submission and peer review site via the following link:
www.ietdl.org/IET-CPS

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