Thematic Series on Verification and Composition for the Internet of Services and Things

The Internet of Services and Things promotes a distributed computing environment that will be inhabited by a virtually infinite number of software services and things. Within this context, software systems will increasingly be built by reusing and composing together software services and things distributed over the Internet.

The Internet of Services and Things is thus radically changing the way software will be produced, verified and used, and calls for new software composition paradigms and patterns, flexible infrastructures and integration architectures, as well as novel modeling and verification methods. Despite the great interest in software composition and verification methods, when developing service- and thing-based software systems, strong challenges remain in place.

This JISA Thematic Series aims at new verification and composition techniques able to meet the requirements of modern applications, counteracting the specialization of traditional approaches in order to deal with heterogeneity, dynamicity, adaptation, large scale, mobility, security, etc. We seek contributions at various levels: from foundational aspects to concrete application experiments; from modeling to verification and analysis; from componentization to composition; and from deployment to execution. Topics include, but are not limited to the following:

Verification and Composition for the Internet of Services and Things
- Engineering Principles
- Requirement Engineering
- Development Processes
- Design and Programming
- Model Checking
- Verification and Validation
- Model-Driven Development Methods and Tools

Run-Time Support for Verifying and Composing Services and Things
- Middleware (description, publication, discovery, access, etc.)
- Convergence and Integration
- Monitoring and Coordination
- Scalability, Mobility, Heterogeneity

QoS Verification of Service- and Thing-based Systems
- Performance, Reliability and Availability Modeling and Evaluation
- Security (vulnerabilities, malwares, countermeasures, etc.)
- Trust, Privacy, and Sustainability
Crosscutting Concerns
- Pervasiveness
- Context- and Resource-awareness
- Semantic-awareness
- Seamlessness
- Adaptation
- Decentralized vs. Centralized Service Composition Approaches

Tools, Case studies, Use cases
- Smart grid, Smart house, Smart cities, Sustainable and Green Systems
- Killer applications

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Submission instructions
Prior to submission, authors should carefully read over the Instructions for Authors, which are located at jisajournal.com. Manuscripts are typically 14 two-column pages in length, and should not exceed 16 pages. Prospective authors should submit an electronic copy of their complete manuscript through the SpringerOpen submission system at jisajournal.com/manuscript according to the submission schedule. They should choose the correct Thematic Series in the "sections" box upon submitting. In addition, they should specify the manuscript as a submission to the “Thematic Series on Service Composition for the Future Internet” in the cover letter. If you have any difficulty in paying the author processing charges (APC), please request a waiver from the editors.

Important dates
- Paper submissions: September 18th, 2016
- First response to authors: November 18th, 2016

Guest editors
- Marco Autili, University of L’Aquila, Italy
- Massimo Tivoli, University of L’Aquila, Italy
- Dimitra Giannakopoulou, NASA Ames Research Center, USA

Please address queries related to this call to:
marco.autili@univaq.it - massimo.tivoli@univaq.it - dimitra.giannakopoulou@nasa.gov

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