

10th International Workshop on Service-Oriented Cyber-Physical Systems in Converging Networked Environments (SOCNE)

Workshop day: 6th September 2016

Organizers

Frank Golatowski, *University of Rostock, Germany*

Lucia Lo Bello, *University of Catania, Italy*

Michael Ditze, *TWT Science & Innovation, Stuttgart, Germany*

Christoph Niedermeier, *Siemens AG, Corporate Technology, Munich, Germany*

Session 1 (9:00 – 10:30)

1. Instant Service Choreographies for Reconfigurable Manufacturing Systems - a Demonstrator
Thomas Kothmayr, Alfons Kemper, Andreas Scholz, and Joerg Heuer
2. A Small-Scale Model House Evaluation platform for Building Automation Systems
Malte Burkert, Joern Esdohr and Heiko Krumm
3. Design and implementation of a web-centric remote data acquisition system
Tullio Facchinetti, Guido Benetti, Moses A. Koledoye and Gianluca Roveda

Session 2 (11:00 – 13:00)

4. TRM-SIoT: A Scalable Hybrid Trust & Reputation Model for the Social Internet of Things
Eleftherios Kokoris-Kogias, Orfefs Voutyras and Theodora Varvarigou
5. QoS-as-a-Service in the Local Cloud
Luis Ferreira, Michele Albano and Jerker Delsing
6. Microservices Approach for the Internet of Things
Björn Butzin, Frank Golatowski and Dirk Timmermann
7. **Invited talk:** Semantic-driven development and engineering of CoAP-based services for automation systems, Phillipp von Rotenhan, Siemens

Abstract. Tomorrow's automation solutions for smart buildings or industrial applications increasingly require integration of systems across multiple domains and vendors as well as fast and flexible engineering and extension of deployed systems. Use of semantic metadata describing devices as well as the data and services they provide can significantly reduce the engineering effort. This talk introduces an approach developed by the BaaS research project that realizes these goals by combining model-based design and development with semantic characterization of data, functionality and context based on suitable ontologies.

Session 3 Hands-On

CoAP – A Lightweight IoT protocol for future industrial systems

Hands-on CoAP, University of Rostock

- Introduction to CoAP and MQTT (30 min)
- CoAP-Stack and CoAP Proxy (60 min)
- Semantic-driven framework with generation of CoAP services, Phillipp von Rotenhan, Siemens (30 min)