# 11th International Workshop on Service-Oriented Cyber-Physical Systems in Converging Networked Environments (SOCNE)

to be held in conjunction with

## IECON 2017

## Beijing, China, October 29 - November 1, 2017

## Submissions

Submissions are possible as full paper (see here ).

## Aim and topics

Smart and reliable service interoperability and composition across heterogeneous platforms and networking environments build the foundation for added-value services. Their key requirement is seamless, well-defined, and potentially cross-sectorial interoperability among stakeholders on application-, service-, and device level. Interoperability has become a competitive factor for many industrial branches such as automotive, aerospace, energy, healthcare, or factory and building automation. At the same time, it serves as an enabler for cross-domain business, e.g. electro mobility, smart grid, or even cooperative engineering.

This workshop encourages communication and exchange of ideas between industrial and academic researchers and developers in the field of preferably embedded middleware,

service-oriented architectures, and heterogeneous networked environments. It follows the whole path from engineering over implementation to testing and leverages the discussion about industrial practices and future trends.

From this perspective, the workshop is focused on (but not restricted to) the following subjects:

**Architectures and Design Principals**

- Platforms, frameworks and tool support
- Configuration & management
- Creation, deployment, life cycle management
- Semantic web services & ontology
- Decentralized/peer-to-peer architectures for device/application networking
- Micro-Services

**Service platforms for CPS**

- Service platforms for cyber-physical systems
- Service platforms for smart-* (e.g. smart grid, smart home, smart building, smart cities, smart mobility,…)
- Service platforms for ambient assisted living, medical, clinics and healthcare
- Service platforms for process, factory, and industrial applications, Industry 4.0
- Enterprise architecture integration and product lifecycle management

**Performance evaluation**

- Towards Real-time SOAs and Real-time networked applications
- Latency optimization and scalability
- IoT stack and cross layer optimization

**Networked embedded systems, CPS, IoT & SOA**

- Fog computing
- SOA in CPS, IoT, and Industrial IoT
- Technologies for interworking smart objects
- Embedded web services
- Software defined networks (SDN) and time-sensitive networks
- SOA for/on/in devices and embedded systems
- Device centric SOAs and RESTful environments
- Web services and middleware for networked embedded systems
- Resource constrained and low power lossy networks
- Ecosystems for sensors, sensor networks, and clouds

**Security & Safety**

- System security design and validation
- Security testing
- Functional safety, dependability and reliability aspects
- Lightweight security suites for the IoT
- Maintenance and update
- Compositional certification

For further information please mailto socnepc (at) gmail.com .