



CALL FOR PAPERS SESOS 2014

2nd International Workshop on Software Engineering for Systems-of-Systems
<http://sesos2014.icmc.usp.br/> at ECSA 2014 <http://ecsa2014.cs.univie.ac.at/>
Vienna, Austria

IMPORTANT DATES

Submission deadline: Jun. 11, 2014
Notification: Jun. 25, 2014
Camera-ready copy: Jul. 02, 2014
Workshop date: Aug. 26, 2014

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SCOPE

Systems-of-Systems (SoS) have become increasingly complex and are frequently used in highly distributed, dynamic, and open environments. SoS have emerged as a new class of evolving software systems, where constituent systems (themselves systems in their own right) work cooperatively in order to fulfill specific missions. SoS are characterized by managerial independence, geographic distribution, evolutionary development, and creation of emergent behavior. These characteristics have therefore raised substantial challenges to software engineering researchers and practitioners. SoS is becoming a hotspot, from both the research and the industrial viewpoints, in particular, related to crucial classes of applications such as safety-critical or mission-critical SoS. Furthermore, SoS are increasingly involved in applications that address societal needs such as environmental monitoring, distributed energy grids management, emergency coordination and crisis management, global traffic control, and smart cities. In this context, the research topic of software architecture for SoS needs to receive more attention and research efforts, considering that software architecture is also the fundamental element to adequately design, implement, operate, and even evolve such dynamic, complex SoS. However, there is a lack of forums that discuss SoS from the Software Engineering perspective, including Software Architecture. Indeed, this workshop series is the first that addresses specifically this new perspective. The main goal of SESoS is to provide a forum for software architecture researchers and practitioners to exchange ideas and experiences, analyze research and development issues, discuss promising solutions, and propose inspiring visions for the future.

TOPICS

The workshop will focus on discussing and establishing the foundations for the SoS Software Architecture domain, to pave the way for a more structured community effort. For this, the workshop will focus on the following (and similar) themes:

- SoS Software Architecture Building Processes
 - Architectural requirements engineering
 - Architectural description
 - Architectural evaluation
 - Architectural evolution

- SoS Software Architecture Construction
 - Techniques and technologies
 - Service-orientation
 - Component frameworks
 - Evolutionary development
- SoS Software Architecture Experience
 - Industrial perspectives
 - Successful case studies
- SoS Software Architecture General Issues
 - Characteristics in SoS software architecture
 - Quality in SoS software architecture
 - Acquisition in the development of SoS
 - Verification and validation of SoS
- Future perspective, challenges, and directions of SoS Software Architecture research and/or development

SUBMISSION

- Two types of submissions are invited:
- Regular paper (up to eight pages): sound technical contributions from both academia and industry; and
 - Position paper (up to four pages): new ideas, positions, or perspectives of research that are not fully validated. All papers submitted to the workshop must be unpublished original work and must not be simultaneously under review or submitted elsewhere. All papers will be judged on the basis of their clarity, relevance, originality, and contribution.

All submissions must be in English, formatted according to the ACM SIG Proceedings Style (2-column) and submitted in either PDF or Postscript format through online upload to the workshop submission website at: <http://sesos2014.icmc.usp.br/>

PUBLICATION OF PAPERS

The accepted papers will be published in the electronic ECSA Proceedings in the **ACM Digital Library**. SESoS is technically co-sponsored by **ACM SIGSOFT** and **ACM SIGPLAN (*)**.



(*) SESoS 2013 was technically co-sponsored by **ACM SIGSOFT** and **ACM SIGPLAN**. Technically co-sponsored will be requested for 2014.