IMPORTANT DATES
Paper submissions: Feb 5, 2016 (extended deadline)
Notification of authors: Feb 19, 2016
Camera-ready copies: Feb 26, 2016
Workshop date: May 16, 2016

SEsCPS PROGRAM CO-CHAIRS
Tomas Bures
(Charles University, Czech Republic)
Danny Weyns
(Katholieke Universiteit Leuven, Belgium)
Bradley Schmerl
(Carnegie Mellon University, USA)
Eduardo Tovar
(CISTER-ISEP, Portugal)

PROGRAM COMMITTEE
Paris Avgeriou
(University of Groningen, Netherlands)
Steffen Becker (TU Chemnitz, Germany)
Nelly Bencomo (Aston University, UK)
Johann Bourcier
(University of Rennes 1, France)
Radu Calinescu
(York University, UK)
Jan Carlson
(Malardalen University, Sweden)
Sagar Chaki (SEI, USA)
Ivica Crnkovic (Chalmers University, Sweden)
Nicolas D’Ippolito
(Univ. of Buenos Aires, Argentina)
Rogerio De Lemos (University of Kent, UK)
Dionisio de Niz (SEI, USA)
Ilios Gerostathopoulos
(Charles University, Czech Republic)
Antonio Fillieri (Imperial College London, UK)
Carlos Ghezzi
(Polytechnic University of Milan, Italy)
Holger Giese
(Hasso-Plattner-Institut, Germany)
Rodolfo E. Haber (UPM-CSIC, Spain)
Gabor Karsai (Vanderbilt University, USA)
Mark Klein (SEI, USA)
Filip Krikava (University of Lille 1, France)
Martina Maggio (Lund University, Sweden)
Henry Muccini (University of L’Aquila)
Maurizio Murroni
(University of Cagliari, Italy)
Geoffrey Nelissen (CISTER and ISEP, Portugal)
Gurulingesh Ravari (Xerox Research, India)
Wolfgang Renz (HAW Hamburg, Germany)
Bernhard Schätz (fortiss, Germany)
Ina Schieferdecker
(Fraunhofer FOKUS, Germany)
Lionel Seinturier (University of Lille 1, France)
Vitor E. Silva Souza
(Univ. of Espirito Santo, Brazil)
Bedir Tekinerdogan
(Wageningen Univ., Netherlands)
Petr Tuma (Charles University, Czech Republic)
Steffen Zschaler (Kings College London, UK)

INTRODUCTION
Cyber-Physical Systems (CPS) are “engineered systems that are built from, and depend upon, the seamless integration of computational and physical components”. With the proliferation of smart embedded and mobile devices, CPS are becoming large-scale pervasive systems, which combine various data sources to control real-world ecosystems (e.g., intelligent traffic control). Modern CPS have to deal effectively with environmental dynamism, control their emergent behavior, be scalable and tolerant to threats, hence CPS have to be smart (sCPS). sCPS feature a number of specifics that render traditional software engineering approaches not directly applicable. This calls for innovative approaches that jointly reflect and address the specifics of such systems.

GOALS
SEsCPS aims to bring together academics and practitioners from several disciplines with the overall objectives: (i) to increase the understanding of problems of Software Engineering (SE) for sCPS, (ii) to study the underlying foundational principles for engineering sCPS, and (iii) to identify and define promising SE solutions for sCPS.

The special themes of SEsCPS’16 are: (1) alignment of disciplines for engineering sCPS, (2) uncertainty and human factors, and (3) reference problems. Around these themes, the workshop strives to build understanding of sCPS and provide a basis for holistically addressing the SE challenges brought by sCPS.

WORKSHOP STRUCTURE AND PLANNED OUTCOMES
The workshop will be set up in a highly interactive way, involving participants with and without accepted paper. The workshop will center presentations and group discussions around the following three general research questions: (1) What are the promising synergies of SE with other disciplines in the domain of sCPS? (2) What are the ways to handle uncertainty in the development and operation of sCPS? (3) What are suitable model problems that can be used in the evaluation of different sCPS solutions?

After the workshop, we will consolidate the results from the workshop in terms of the research agenda and prepare a joint report to be submitted to Software Engineering Notes. A formal follow-up publication will be considered in which interested attendees can be involved.

TOPICS
In addition to its special themes, SEsCPS’16 will focus on (but not limit itself to) the following topics:

- Human in the loop in sCPS
- Big data processing in sCPS
- Simulation of sCPS
- Development lifecycle management
- Assurances for sCPS
- Scalability and evolvability of sCPS
- Convergence of sCPS and IoT
- sCPS and cloud convergence
- Eco-systems and systems of systems of sCPS
- Case studies and experience reports in building large-scale sCPS
- Empirical studies for sCPS
- Security and verification of sCPS
- Reference problems for sCPS

PAPER SUBMISSION
We solicit three types of submissions:

1. Full papers, reporting innovative and original research and experience reports, presenting industrial case studies, experiments, and experiences with particular synergies in SE practices, methods or techniques for building sCPS. Full papers are limited to 8 pages.
2. Position and future-trends papers, describing ongoing research, new results, and future emerging trends. Position papers are limited to 4 pages.
3. Reference problem papers, describing and exemplifying problems coming from real-life settings (industrial cases, etc.) that pose fundamental or characteristic challenges that sCPS should address. Reference problem papers are limited to 4 pages.

Every submission will be peer-reviewed by at least three reviewers. Emphasis will be given on originality, usefulness, practicality, and overall quality. Papers must not have been previously published or be currently submitted elsewhere. If accepted, the paper must be personally presented at the workshop by one of the authors. Workshop papers must follow the ICSE 2016 Format and Submission Guidelines. Accepted papers will be published as an ICSE 2016 Workshop Proceedings in the ACM and IEEE Digital Libraries. The official publication date of the workshop proceedings is the date the proceedings are made available in the ACM Digital Library. This date may be up to two weeks prior to the first day of ICSE 2016. The official publication date affects the deadline for any patent filings related to published work.

Submission link: https://easychair.org/conferences/?conf=sescps2016