Overview and Scope

There is an increasing demand in industry to use formal methods for verification and validation of safety-critical systems, in avionics, automotive, medical, and other cyber-physical systems. Newer standards, such as DO-178C (avionics) and ISO 26262 (automotive), emphasize the need for formal methods and model-based development, speeding up their adaptation in industry.

The aim of this workshop is to bring together researchers and engineers who are interested in the application of formal and semi-formal methods. Specific topics include, but are not limited to:

- formal methods in safety-critical systems, including avionics, automotive, medical, and other safety-/QoS-critical systems
- case studies and experience reports
- methods, techniques and tools
- limitations of formal methods in industry (usability, scalability)
- formal analysis support for modeling languages used in industry, such as AADL, Ptolemy, SysML, SCADE, Modelica
- code generation from validated models.

Publication

Accepted papers in categories A – D will appear in the proceedings of the workshop, published as a volume in Springer's Communications in Computer and Information Science (CCIS) series.

Authors of selected accepted papers will be invited to submit extended versions to appear in a special issue of the Science of Computer Programming journal.

Submission

We solicit submissions reporting on:

A — original research contributions (15 pages max)
B — applications and experiences (15 pages max)
C — surveys, comparisons, state-of-the-art reports (15 p. max)
D — tool papers (5 pages max)
E — position papers and work in progress (5 pages max)

Important Dates

Submission deadline: September 6, 2014
Notification: October 3, 2014
Workshop: November 6 and/or 7, 2014

Program Committee

Erika Ábrahám
Musab AlTurki
Toshiaki Aoki
Farhad Arbab
Cyrille Artho
Kyungmin Bae
Saddek Bensalem
Armin Biere
Ansgar Fehnker
Mamoun Filali
Bernd Fischer
Klaus Havelund
Marieke Huisman
Ralf Huuck
Fuyuki Ishikawa
Takashi Kitamura
Alexander Knapp
Yang Liu
Robi Malik
Frédéric Mallet
César Muñoz
Thomas Noll
Peter Őlvéczy
Charles Pecheur
Paul Pettersson
Camilo Rocha
Ralf Sasse
Oleg Sokolsky
Sofiène Tahar
Carolyn Talcott
Tatsuhiro Tsuchiya
Chen-Wei Wang
Michael Whalen
Huibiao Zhu

RWTH Aachen University, Germany
King Fahd University, Saudi Arabia
JAIST, Japan
Leiden University and CWI, The Netherlands
AIST, Japan (chair)
Univ. of Illinois at Urbana-Champaign, USA
Verimag, France
Johannes Kepler University, Austria
University of the South Pacific, Fiji
IRIT, France
Stellenbosch University, South Africa
NASA JPL, USA
University of Twente, The Netherlands
NICTA, Australia
National Institute of Informatics, Japan
AIST, Japan
Augsburg University, Germany
Nanyang Technological University, Singapore
University of Waikato, New Zealand
Université Nice Sophia Antipolis, France
NASA Langley, USA
University of Oslo, Norway (chair)
Université catholique de Louvain, Belgium
Mälardalen University, Sweden
Escuela Colombiana de Ingeniería, Colombia
ETH Zürich, Switzerland
University of Pennsylvania, USA
Concordia University, Canada
SRI International, USA
Osaka University, Japan
McMaster University, Canada
University of Minnesota, USA
East China Normal University, China