

Preface

This volume contains the proceedings of the Fifth International Workshop on Formal Techniques for Safety-Critical Systems (FTSCS 2016), held in Tokyo on November 14, 2016, as a satellite event of the ICFEM conference.

The aim of this workshop is to bring together researchers and engineers who are interested in the application of formal and semi-formal methods to improve the quality of safety-critical computer systems. FTSCS strives to promote research and development of formal methods and tools for industrial applications, and is particularly interested in industrial applications of formal methods. Specific topics include, but are not limited to:

- case studies and experience reports on the use of formal methods for analyzing safety-critical systems, including avionics, automotive, railway, medical, and other kinds of safety-critical and QoS-critical systems;
- methods, techniques, and tools to support automated analysis, certification, debugging, etc., of complex safety/QoS-critical systems;
- analysis methods that address the limitations of formal methods in industry (usability, scalability, etc.);
- formal analysis support for modeling languages used in industry, such as AADL, Ptolemy, SysML, SCADE, Modelica, etc.; and
- code generation from validated models.

The workshop received 23 regular paper submissions. Each submission was reviewed by at least three referees. Based on the reviews and extensive discussions, the program committee selected nine papers for presentation at the workshop and inclusion in this volume. Another highlight of the workshop was an invited talk by Naoki Kobayashi.

Many colleagues and friends have contributed to FTSCS 2016. We thank Naoki Kobayashi for giving an excellent invited talk and the authors who submitted their work to FTSCS 2016 and who, through their contributions, made the workshop an interesting event. We are particularly grateful that so many well-known researchers agreed to serve on the program committee, and that they provided timely, insightful, and detailed reviews. We also thank the editors of *Communications in Computer and Information Science* for agreeing to publish the proceedings of FTSCS 2016 as a volume in their series, and Shaoying Liu and Shin Nakajima for their help with the local arrangements.

December 2016

Cyrille Artho
Peter Csaba Ölveczky

Formal Techniques for Safety-Critical Systems
5th International Workshop, FTSCS 2016, Tokyo, Japan,
November 14, 2016, Revised Selected Papers
Artho, C.; Ölveczky, P.C. (Eds.)
2017, XII, 161 p. 40 illus., Softcover
ISBN: 978-3-319-53945-4