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Verification and Evaluation of Computer and Communication Systems


15th International Conference, VECoS 2021
Virtual Event, November 22–23, 2021
Revised Selected Papers

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Preface

This volume contains the papers presented at the 15th International Conference on Verification and Evaluation of Computer and Communication Systems (VECoS 2021), held as a virtual conference during November 22-23, 2021 due to the COVID-19 pandemic. The conference was planned to take place in Beijing, China.

This year's event continues the tradition of previous editions 2007 in Algiers Algeria, 2008 in Leeds UK, 2009 in Rabat Morocco, 2010 in Paris France, 2011 in Tunis Tunisia, 2012 in Paris France, 2013 in Florence Italy, 2014 in Béjaïa Algeria, 2015 in Bucharest Romania, 2016 in Tunis Tunisia, 2017 in Montreal Canada, 2018 in Grenoble France, 2019 in Porto Portugal, and 2020 in Xi'an China (virtual).

As in previous editions, VECoS 2021 provided a forum for researchers and practitioners in the areas of verification, control, performance, and dependability evaluation in order to discuss the state of the art and challenges in modern computer and communication systems in which functional and extra-functional properties are strongly interrelated. The main motivation is to encourage cross-fertilization between various formal verification and evaluation approaches, methods, and techniques, and especially those developed for concurrent and distributed hardware/software systems.

The following events were co-located with the VECoS 2021 conference

- 24th International Symposium on Formal Methods
- 7th Symposium on Dependable Software Engineering
- 19th ACM-IEEE International Conference on Formal Methods and Models for System Design

The Program Committee of VECoS 2021 was composed of 52 researchers from 18 countries. We received 12 full submissions from 11 countries. After a thorough and lively discussion phase, the committee decided to accept 5 papers including 4 regular and 1 position paper. Presented topics spanned over different subjects, namely approaches to enhance formal verification scalability and efficiency, contract-based techniques for safety-critical timed systems, and verification of multi-agent systems. The conference also included two invited talks on distributed systems monitoring and intelligent data-driven systems. An invited paper for the former is included in this volume.

We are grateful to the Program and Organizing Committee members, to the reviewers for their cooperation, and to Springer for their professional support during the production phase of the proceedings. We are also thankful to all authors of submitted papers, the invited speakers, and to all participants of the conference. Their interest in this conference and contributions are greatly appreciated.

November 2021

Ayoub Nouri
Weimin Wu

Organization

VECoS 2021 was planned to take place in Beijing, China, November 22-23, 2021. Due to the COVID-19 pandemic, VECoS 2021 was held as a virtual conference.

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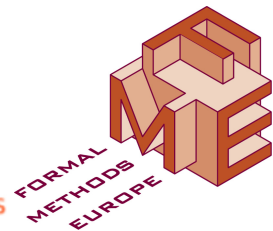
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