30th Euromicro Conference on Real-Time Systems

ECRTS 2018, July 3rd–6th, 2018, Barcelona, Spain

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Preface

Message from the Chairs

Welcome to the **30th Euromicro Conference on Real-Time Systems (ECRTS 2018)** in Barcelona, Spain. ECRTS is the premier conference in Europe in the broad area of real-time and embedded systems. Along with RTSS and RTAS, ECRTS ranks as one of the three top international conferences on real-time systems. For ECRTS 2018, we have received 78 **submissions** with authors from 21 countries, 9 (43%) from outside Europe.

Each submission has been reviewed by at least three members of the technical programm committee – all active researchers and experts in their field – with the help of 62 external reviewers. The submissions have been evaluated and assessed according to their contribution and originality, the technical correctness and writing quality. The program committee has then selected – at the physical program committee meeting in Amsterdam – 26 of these submissions for publication in the proceedings and presentation at the conference.

From the 26 accepted papers, three have been recognized as **Outstanding Papers** by the program committee and will be presented in a dedicated session. One of these three papers will be selected as **Best Paper** by a best paper committee based on both the contribution of the paper and the presentation.

ECRTS takes a leading role in adopting novel concepts and thus shaping the way we do science. In 2016, ECRTS has been the first conference on embedded real-time systems to introduce the **Artifact Evaluation**, with the aim to promote reproducibility of our research. An Artifact Evaluation committee validates the artifacts submitted by the authors and includes a seal of approval for those who passed the replication test. This year, already eight papers (31%) have been submitted to and passed the artifact evaluation and are marked with this seal in the proceedings. In 2017, ECRTS has been again the first conference on embedded real-time systems to introduce an **Open Access publication model**, while retaining the quality-control measures. The open access model has been established with LIPIcs – Leibniz International Proceedings in Informatics established in cooperation with **Schloss Dagstuhl, Leibniz Center for Informatics**. The conference serves the research community and the public best when results are accessible to the largest audience, i.e., the research community and the public. This year again, the proceedings will be accessible free of charge for everyone.

ECRTS 2018 will start with a **keynote on Runtime-Aware Architecture (RAA)** by **Mateo Valero**, director of the **Barcelona Supercomputing Center**. Another keynote will follow on the second day of the conference.

ECRTS 2018 will feature in addition a **Work-In-Progress session** for short papers where novel ideas will be presented to the audience, and a **Journal2Conference** session where work so far only published in journals can be presented to the conference audience. Submissions to the Work-In-Progress and Journal2Conference sessions have been evaluated separately by dedicated committees, and are not part of these published proceedings. Furthermore, a full presentation is dedicated to an **Industrial Challenge** to foster the collaboration between the academic world and industry.

The day before the main conference is dedicated to five outstanding international workshops: the Real-Time Scheduling Open Problems Seminar (**RTSOPS**), the workshop on

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Worst-Case Execution Time Analysis (**WCET**), the workshop on Operating Systems Platforms for Embedded Real-Time Applications (**OSPERT**), the workshop on Analysis Tools and Methodologies for Embedded and Real-Time Systems (**WATERS**), and the workshop Real-Time Networks (**RTN**).

ECRTS 2018 is the result of the hard work of many people. We are especially grateful for the contributions of the following people: the **Barcelona Supercomputing Center** for its support with the local organization, the **Program Committee** and the **external reviewers**, who are listed in subsequent pages; **Martina Maggio** as Chair of the Work-In-Progress session and the Artifact Evaluation Committee; **Patrick Meumeu Yomsi** as Chair of the Journal2Conference session; **Sophie Quinton** for the organization and **Arne Hamann** for the presentation of the Industrial Challenge; **Heechul Yun** and **Adam Lackorzynski** as OSPERT Workshop Chairs; **Mathieu Jan** and **Ramon Serna Olivier** as RTN Workshop Chairs; **Thidapat (Tam) Chantem** and **Dorin Maxim** as RTSOPS Workshop Chairs; **Claire Pagetti** and **Arne Hamann** as WATERS Workshop Chairs; **Forian Brandner** as WCET Workshop Chair. A special thanks to **Marc Herbstritt** of Dagstuhl Publishing and **Björn Brandenburg** with their support in publishing the proceeding, and to **Gerhard Fohler** for his steady guidance and contributions as the Euromicro Real-Time Technical Committee Chair.

Congratulations to all of the authors for their exceptional work. ECRTS 2018 would not exist without the contributions of the authors that submitted their work for review and critique. We are very pleased with the quality, depth, and breadth of this year's technical program. We hope you enjoy yourself at ECRTS 2018!

Francisco J. Cazorla
General Chair, ECRTS 2018

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