CBSE’14
Proceedings of the 17th International ACM SIGSOFT Symposium on Component-Based Software Engineering
(part of CompArch 2014)

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Welcome to CompArch 2014, the Federated Events on Component-Based Software Engineering and Software Architecture, held in Lille, France, from 30 June to 3 July 2014.

The three main events composing CompArch are:

* CBSE 2014: the 17th ACM SIGSOFT Symposium on Component Based Software Engineering

* QoSA 2014: the 10th International ACM SIGSOFT Conference on Quality of Software Architectures

* WCOP 2014: the 19th International Doctoral Symposium on Components and Architecture

We would like to thank those who helped us organize CompArch this year. In particular, we thank Lisa Tolles, Cindy Edwards and her associates at Sheridan Communications who assembled the proceedings you are reading; Romain Rouvoy, who took care with maestro of the event publicity; Laurence Duchien and Martin Monperrus, who provided their assistance, support and enthusiasm for organizing the event; Sophie Lefebvre and Pauline Bachelard from Perspectives & Organisation, who mastered all the details of the organization.

At ACM and ACM SIGSOFT, we want to thank for her support Adrienne Griscti, and Will Tracz, chair of SIGSOFT, for his backing. A special thanks also to Clemens Szyperski, Ivica Crnkovic, Ralf Reussner, Raffaella Mirandola, and all the members of the CompArch steering committee for selecting Lille as the host of the 2014 edition and their continuous support.

At the University of Lille (Lille 1), I want to thank the research council, Sophie Tison, director of the Computer Science Laboratory, and Marc Douay, director of the Ambient Intelligence Campus program, for their support in organizing this event.

We hope that you’ll find the overall program interesting, inspiring and that you will return home with plenty of new insights and connections into our community, that will lead you to further successes.

Lionel Seinturier
CompArch 2014 General Chair
Université Lille 1
France
Welcome to CBSE’14

It is a great pleasure to welcome you to the 17th International ACM SIGSOFT Symposium on Component-Based Software Engineering – CBSE’14. Although component-based development is stabilizing as a more mature field, in academia as well as in industry, it is still an active and expanding research domain with plenty of challenges remaining, both in terms of fundamentals and concerning how to efficiently apply the concepts in practice. Recently, component-based approaches have also gained momentum in the domains of embedded and cyber-physical systems, where resource limitations and safety concerns give rise to new challenges. Reflecting this, the special theme for 2014 is “Dependable and Predictable Components”.

The call for papers attracted 62 submissions from Europe (France, Germany, Czech Republic, United Kingdom, Spain, Sweden, Austria, Belgium, Luxembourg, Switzerland and Cyprus); Asia (India, Pakistan, Lebanon and Korea); America (Brazil, United States, Canada and Colombia); Africa (Algeria and Tunisia); and Australia. Each paper was assigned three reviewers, and after extensive discussions the Program Committee decided to accept 21 papers (14 regular papers and 7 short papers). The topics of the accepted papers range from testing and monitoring, over connector classification, to formal reasoning and model checking. A clear trend among the accepted papers this year is that many of them address different aspects of reconfigurable and adaptive component-based systems.

CBSE 2014 is part of the federated event CompArch 2014 together with the 10th International ACM SIGSOFT Conference on the Quality of Software Architectures (QoSA) and the 19th International Doctoral Symposium on Components and Architecture (WCOP). We thank the CompArch general chair Lionel Seinturier and the CompArch organization team for coordinating and setting up the various events.

Special thanks go to all authors who submitted papers for their valuable contributions that allowed the CBSE 2014 program committee to put in place an exciting program. We are also very grateful to the program committee members who worked actively on paper reviewing and discussions, and provided the authors with detailed comments for improving the scientific content and quality of their papers. Finally, we also want to thank Cindy Edwards and Lisa Toles at Sheridan Communications, for coordinating the proceedings, and of course our sponsor, ACM SIGSOFT.

We hope that you will find the CBSE 2014 program interesting and relevant to your own research activities, and that your participation in the event will give you new contacts, and hopefully trigger new collaborations, with researchers and practitioners in the international CBSE community.

Eduardo Almeida
CBSE’14 Program Chair
Federal University of Bahia, Brazil

Jan Carlson
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