Message from the General Chair

The success of key human activities ranging from research and business to everyday services relies on the use of ever more sophisticated, feature-rich and complex software systems in interactions. These complex software systems are regularly required to accomplish more, faster and on a broader scale, to adapt dynamically to changing workloads, scenarios and objectives, and to achieve guaranteed levels of performance and dependability.

Satisfying such demanding requirements in the presence of the variability, heterogeneity and non-linear behavior that characterize complex software systems poses numerous challenges to both their developers and their users. There is therefore an urgent need to investigate the theories, methods, and tools that tackle the complexity of those systems. The IEEE International Conference on Engineering of Complex Computer Systems (ICECCS) is a well-established forum that provides opportunities for researchers of different backgrounds to exchange the state-of-the-art results and experiences in the field of complex software systems. The 17th IEEE International Conference on Engineering of Complex Computer Systems (ICECCS 2012) aims to continue the tradition of ICECCS in this direction.

This volume contains the proceedings of the 17th IEEE International Conference on Engineering of Complex Computer Systems held 18-20 July 2012 in Ecole Normale Supérieure, Paris (France). A total of 128 regular papers were submitted to the conference and each paper was reviewed by three program committee members with the help of the external reviewers. The program committee selected 37 papers for presentation in the conference and inclusion in this volume, providing a comprehensive coverage of the current state-of-the-art research in the area of complex computer systems.

I would like to thank first very sincerely the program committee for their excellent work in the paper selection process and all external reviewers for their contributions. The ICECCS 2012 conference is also honored by the presence of Albert Benveniste, Christophe Aussagues and Jim Woodcock, who accepted to deliver keynote speeches at the conference.

Many people have helped in maintaining the quality of this conference. Without their support and enthusiasm, ICECCS 2012 would not have been possible. In this matter, my special thanks go first to the Program Co-Chairs Karin Breitman, Isabelle Perseil and Marc Pouzet, for their initiative, their efforts and their time. Many thanks to Alice Parisot, head of the communication department of the C.E.S.A.M.E.S. (Center of Excellence on Systems Architecture, Management, Economy & Strategy) non-profit organization, for publicizing the event. I also express my gratitude to Mike Hinchey for his advices, to C.E.S.A.M.E.S. that managed the local arrangements and to all the attendees of ICECCS 2012 for their participation to the conference.

My final thanks are of course going to Ecole Normale Supérieure for hosting the conference and to IEEE, C.E.S.A.M.E.S. and the chair “Engineering of Complex Systems” for sponsoring the conference.

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ICECCS 2012 General Chair