Message from the Chairs

It is our great pleasure and honor to welcome everyone to the 31st IEEE/ACM International Conference on Automated Software Engineering (ASE 2016). The ASE conference series is the premier research forum for automated software engineering. Each year it brings together researchers and practitioners from academia and industry to discuss foundations, techniques, and tools for automated analysis, design, implementation, testing, and maintenance of software systems. This publication contains the proceedings of the conference, which was held between September 3–7, 2016 in Singapore. The first two days of the conference were allocated to workshops, tutorials, and a doctoral symposium, while the last three days were for the presentations of keynotes, technical papers, and tool demo papers.

Entering its fourth decade after its inception, the ASE conference is getting even more relevant today. More and more individuals, businesses, and governments are relying on software systems, ranging from small apps that run on handheld devices to large mission critical systems that run on the cloud. ASE tools and techniques help in the construction and evolution of such systems to improve system reliability and developer productivity.

ASE 2016 was held in the beautiful downtown campus of Singapore Management University. We are excited to bring ASE for the first time to Singapore and the second time to Asia. Singapore is a green island/city-state in Southeast Asia with a population of over 5 million people. It is a global transportation hub and leading IT, commerce, and financial center. Thousands of information and communication (infocomm) companies are located in Singapore, with tens of thousands of people working in this sector.

As a major highlight, ASE 2016 was able to attract 3 internationally renowned keynote speakers:
- Markus Püschel (ETH Zurich): “Program Generation for Performance”
- Wolfram Schulte (Microsoft): “Changing Microsoft’s Build: Revolution or Evolution”

For the technical research track, we received 353 paper submissions – a record for the ASE conference series! 20 submissions were desk rejected without review, because they failed to follow the instructions given in the call for papers or were clearly out of scope. The remaining 333 submissions – 284 technical papers, 14 experience papers, and 35 new idea papers – were reviewed by the members of the Program Committee and the Expert Review Panel, with each paper receiving, at least, 3 reviews. For the first time, ASE pursued a lightweight double-blind review process. While our initial impression is positive, we are still in the process of analyzing the data we collected. A report on double-blind reviewing is in the process of making. We would like to thank our review process chairs, Yuriy Brun and Claire Le Goues, for their help with the double-blind reviewing process. We had a very active online discussion phase, with many long and detailed discussions among the members of the Program Committee (PC) and the Expert Review Panel. During a two-day physical PC meeting held at the University of Passau on July 12, 2016, the members of the Program Committee compiled the final selection of papers to be presented at ASE 2016. This careful and thorough review process resulted in the selection of 53 technical research papers, 4 experience papers, and 14 new ideas papers (some of these were re-categorized). Our sincere thanks go to members of the Program Committee and the Expert Review Panel, and the authors for their hard work and contributions!

Beside presentations of technical papers, the program of ASE 2016 also includes the presentations and demonstrations of 20 tool papers. These papers were selected from 44 submissions. We thank our tool
demonstration chairs Yuanfang Cai and Yang Liu along with tool paper authors to make this track possible!

Furthermore, prior to the conference, 4 workshops were held on Sept 34, 2016 thanks to the hard work of the workshop chairs Leonardo Mariani and Zhenchang Xing as well as the workshop organizers and authors:

- Fifth International Workshop on Software Mining. Organizers: Ming Li, Xiaoyin Wang, and Lucia.

ASE 2016 also offered a wide range of tutorials to conference attendees. The tutorials covered a broad range of topics, such as model checking, product lines, program analysis, testing, search-based software engineering, human computer interaction, and software mining. We thank our tutorial chairs Tien N. Nguyen and Rui Abreu as well as the tutorial lecturers to make ASE 2016 attendees be spoilt for choice.

Furthermore, we would like to thank our doctoral symposium chairs Massimiliano Di Penta and Tien N. Nguyen for organizing the annual ASE doctoral symposium on Sept 4. Many doctoral students benefitted from advice given by a panel of experts and the keynote speaker Andrian Marcus.

Numerous organizing committee members have helped in various ways to make the event a success. We would like to thank Lingxiao Jiang for serving as local arrangement/finance chair; Siau-Cheng Khoo for serving as sponsorship chair; Jun Sun for serving as proceedings chair; Christian Kästner, Shahar Maoz, and Xin Xia for serving as publicity co-chairs; Lingming Zhang and Lucia for serving as social media co-chairs; Jin Song Dong and Steven Miller for serving as members of the local advisory committee; Pavneet Singh Kochhar and Ferdian Thung for serving as webmasters. Additionally, we would also like to thank various members of the administrative team of the School of Information Systems (SIS) and Living Analytics Research Center (LARC), and members of the Software Analytics Research (SOAR) group, who have contributed much in managing the finance and local arrangements.

Last but not least, we would like to thank our sponsors – please refer to the conference website (http://ase2016.org/sponsors.html) for a full list – for providing various kinds of support.

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