Software Engineering is an exciting and challenging profession, both for researchers and practitioners. Yet many focus on its failures and shortcomings. This new track hopes to begin to rectify this: by illustrating and documenting some of the major achievements and by conveying some of the exciting challenges which remain.

**Achievements:**

There have been major software engineering contributions in many application domains, from airtraffic control systems to genomic research, from automobile systems to healthcare. These achievements required that various deep software engineering issues were addressed and implemented. The aim is to identify and describe precisely the critical issues that had to be addressed in order to permit the major software achievements. This aspect of the Track was inspired by the work of the Impact project, an ongoing initiative under the auspices of ACM SIGSOFT whose goal is to determine the impact of software engineering research upon software engineering practice.

**Challenges:**

Similarly, there are exciting major systems currently being implemented or planned where the software engineering aspects pose huge challenges and/or raise new fundamental research issues. The aim is to identify the deep and enduring technical challenges which remain, both in theory and practice, and to describe possible solutions and the research work that needs to be done. The hope is that these will provide elements of a research agenda in software engineering.

**Content:**

The four papers selected cover a wide range of research areas, from software architectures for scientific applications to user-interface construction, from distributed software development to exception in medical workflow systems. In addition, we are delighted to include invited contributions from Prof. Jean-Raymond Abrial on the utility of formal methods in industry, Prof. Ken Sakamura on the challenges posed in the age of ubiquitous computing, and a joint session with the main technical program on the software engineering challenges in the automotive industry by Prof. Manfred Broy.

**Organization:**

The programme committee for the track comprised 10 members drawn from a wide cross section of the software engineering community. It was a pleasure and privilege to work with them and I would like to express my thanks for their contribution.

- Judith Bishop, Univ. of Pretoria - South Africa
- Carlo Ghezzi, Politecnico di Milano - Italy
- Michael Jackson, London - United Kingdom
- Stefan Jaehnichen, Fraunhofer FIRST - Germany
- Kevin Ryan, University of Limerick - Ireland
- Heinz Schmidt, Monash University - Australia
- Tetsuo Tamai, University of Tokyo - Japan
- Richard Taylor, Univ. of California, Irvine - USA
- Sebastian Uchitel, Imperial College - UK
- Axel van Lamsweerde, Université Catholique de Louvain - Belgium

I hope that this track helps to raise awareness of software engineering as a discipline which has made major contributions to complex applications and which raises interesting and fundamental research questions.

**Jeff Kramer**

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