

Preface

Architectural representations of systems have shown to be effective in assisting the understanding of broader system concerns by abstracting away from details of the system. The dependability of systems is defined as the reliance that can justifiably be placed on the service the system delivers. Dependability has become an important aspect of computer systems since everyday life increasingly depends on software. Although there is a large body of research in dependability, architectural level reasoning about dependability is only just emerging as an important theme in software engineering. This is due to the fact that dependability concerns are usually left until too late in the process of development. In addition, the complexity of emerging applications and the trend of building trustworthy systems from existing, untrustworthy components are urging dependability concerns be considered at the architectural level. Hence the questions that the software architecture and dependability communities are currently facing: what are the architectural principles involved in building dependable systems? How should these architectures be evaluated?

By bringing together researchers from both the software architectures and the dependability communities, this workshop makes contributions from dependability more visible within the software engineering community and vice-versa, thus helping to build strong collaboration possibilities among the participants. The workshop provides software engineers with systematic and disciplined approaches for building dependable systems, as well as allows further dissemination of the state of the art methods and techniques.

The aim of this First Workshop on Architecting Dependable Systems is to bring together the communities of software architectures and dependability to discuss the state of research and practice when dealing with dependability issues at the architecture level, and to jointly formulate an agenda for future research in this emerging area.

We have received 18 submissions mainly from academic contributors. Each paper was reviewed by 3 members of the Program Committee, and a total of 12 papers have been accepted for presentation. We are thankful for the support and dedication of the Program Committee towards making this workshop a success. The Program Committee consisted of:

Andrea Bondavalli (Italy)
Jan Bosch (The Netherlands)
José Fiadeiro (Portugal)
David Garlan (USA)
Valérie Issarny (France)
Marc-Olivier Killijian (France)
John Knight (USA)
Nenad Medvidovic (USA)
Dewayne E. Perry (USA)
Cecília Rubira (Brazil)
Lui Sha (USA)
Francis Tam (Finland)
Richard Taylor (USA)
Frank van der Linden (The Netherlands).

We highly appreciate that Valérie Issarny (France) and William L Scherlis (USA) have accepted our invitation to give talks during the Workshop on their personal views on architecting dependable systems.

We look forward to an interesting and stimulating workshop.

Rogério de Lemos, Cristina Gacek, and Alexander Romanovsky