Message from the Track Chairs

Component-Based Software Engineering

This CBSE track is sixth in a row at EUROMICRO Conference on Software engineering and advanced applications, reaching a stable level of number a slight increase of quality of submission. The track gradually introduces certain new topics that address software complexity by increasing abstraction level, for example service orientation, variability and product line architectures, while keeping considering topics characteristics for CBSE. Component-based development has been used successfully in applications in many engineering and business domains such as desktop environments, graphing packages and mathematical applications and it is increasingly present in new domains, such as such as in real-time, safety-critical, mission critical, or, more generally, dependable systems. The communities from these domains show increasing interest in addressing their research and practical problems by applying component-based approach. We also see a trend combination of different approaches, such as component-based software engineering and aspect-oriented programming, component-based development and service-oriented development.

CBSE is now widely recognized as an important sub-discipline of software engineering and in recent years CBSE topics have been addressed in many conferences. There exist three to four workshops or symposia dedicated to CBSE. EUROMICRO SEAA CBSE track belong to them. The aim of the track is to continue the successful work begun at EUROMICRO 2001 – to bring together practitioners and researchers from academia and industry to discuss and improve the theories, technologies, and processes of component-based software engineering development, and to disseminate results to other research communities and industry.

In the Call for Papers the suggested areas of interest were grouped in the following categories:

- Component models and technologies
- Components and Quality Attributes
- Component compositions – static and dynamic compositions, taxonomies
- Components and Service Oriented Architecture
- Middleware solutions for CBSE
- Component-based software architecture
- Components assessments
- COTS components
- Components and Open Source
- Component markets and businesses
- Component design, implementation, testing
- Development environment and tools
- Component development processes
- Case studies and experience reports
- Dependability of component-based systems
- Components and Model-driven Development
- Components for real-time and embedded systems
- CBSE and product-line development, CBSR and variability
- Empirical validation of CBSE
- CBSE and emerging disciplines (aspect-oriented programming, etc.)
This year 34 papers have been submitted. Each paper was evaluated by three or four reviewers and the acceptance decision was based on their evaluations. A total of 16 papers were accepted keeping the acceptance rate between 40 and 50%.

The papers will be presented at the following sessions:
- Session 1: Service Orientation
- Session 2: Variability in components and compositions
- Session 3: Quality Assurance – Verification & Validation
- Session 4: Product Line Engineering & Reuse
- Session 5: Dependable and Embedded System

From the nature of the papers selected, we can conclude that the topics are broader than previous years in a sense of focus on “pure” CBSE topics: Three topics (service orientation, product line engineering & reuse, and partially variability in components and compositions) touch areas that are not strictly related to CBSE. This shows a trend of penetration of CBD in other software engineering domains.

We would like to thank the Program Committee members and the co-reviewers for their help in reviewing the papers. The review process has been of high quality and went smoothly thanks to excellent cooperation of the PC.

We hope you will find the CBSE track interesting and simulating and will continue to contribute to its success in the coming years.

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