Widespread development and reuse of software components to construct application systems has become a popular approach due to its strong potential in cost reduction and quality improvement. As the fast advance of web service research and technologies, service-oriented software development based on the existing web enable components is becoming a very hot research field due to its advantages in support dynamic customer services and marketing needs. Building large-scale modern software applications, such as web-based software, e-commerce applications, web service systems, require engineers to use the existing components, including COTS components. This brings many new issues in software evolution for component-based systems (such as web services) whenever some components are changed or upgraded. This international workshop is intended to provide an effective forum for researchers and industry practitioners to discuss these issues, challenges, needs, and innovative solutions in supporting the evolution of component-based systems and web applications. The workshop brings together software engineering researchers, web service and software component developers, and industry practitioners to exchange innovative ideas, state-of-the-art research results, and experience reports in the evolution components, component-based systems, and web applications. The topics for submissions include, but are not limited to, the following:

- Component construction and composition for system evolution
- Self-test and testable components, maintainable and measurable components
- Component verification and validation, testability, and tools
- Component integration challenges, needs, and techniques for building web services and applications
- Component integration connect-wares and frameworks for system evolution
- Component regression test criteria, methods, strategies, and tools
- System regression test criteria, techniques, tools for component upgrades, system evolution and web applications
- Dynamic re-testing issues, strategies, methods, and tools for components and web service systems
- Change identification, impact analysis, and test case reuse for system evolution and web service applications
- Performance measurement models, metrics, tools for component-based system evolutions and web service applications
- Maintenance of components, systems, and web applications and services
- Industrial experience & lessons reports and academic case studies

**Submissions:**

Original papers not being submitted to journals or other conferences will be considered. All submitted papers will be evaluated according to its originality, significance, correctness, presentation and relevance. Papers should be submitted electronically (www.ksi.edu/seke/seke06.html for details). Please follow the instructions given by the webpage. Manuscripts will be limited to 6 pages following IEEE conference proceedings style and guidelines.

Accepted papers will be published in the conference proceedings of the Eighteenth International Conference on Software Engineering and Knowledge Engineering (SEKE 2006). At least one of the authors of each accepted paper must register as a full participant of the SEKE conference to publish the paper in the proceedings. A special journal issue has been planned. The selected best papers will be recommended for publishing in a journal special issue.

**Important Dates:**

- March 1, 2006: Paper submission due date
- April 15, 2006: Notification of acceptance
- May 1, 2006: Camera-ready copy due date
- July 5 - 7, 2006: SEKE 2006 and EECC 2006

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