



28th International Conference on Software Engineering

20-28 May 2006

<http://www.icse-conferences.org/2006/>



Call for Participation

General Chair

Leon J. Osterweil, *U. of Massachusetts, USA*

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Far East Experience Track Chair

Kouichi Kishida, *Software Research Assoc., Japan*

Software Engineering: Achievements and Challenges Track Chair

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New Faculty Symposium Chair

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Most Influential Paper of ICSE 18 Award

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Computer-based systems continue increasingly to pervade every aspect of human activity. As this proceeds, the need to be sure that we can provide safe, efficient, high-quality software for these systems at acceptable costs in time and money, continue to assume increasing importance. The practice of software development is a worldwide enterprise, with nations and companies, both great and small, and both established and emerging, all vying for leading positions. Breakthroughs and improvements in the practice of software development, and the attendant competitive advantages they will convey, will depend pivotally on progress in fundamental software engineering research, and in effective education. Thus, ICSE 2006 is dedicated to fostering progress in practice, research, and education, and to creating a forum in which they can be interrelated and encouraged to enrich each other.

The ICSE series has for decades been the premier international forum for researchers, practitioners and educators to present and discuss the most recent ideas, innovations, trends, experiences, and concerns in the field of software engineering. As has traditionally been the case, ICSE 2006 invites high quality submissions in the form of papers describing original unpublished **research** results, meaningful **experiences**, and novel **educational** insights.

Additional highlights of ICSE 2006 will be a **Far East Experience** track dedicated to examining recent events and progress in software development specifically in the Far East environment, and an **Achievements and Challenges** track that will focus on critical issues in past software engineering research achievements and deep, enduring research challenges. As in the past, proposals for **Tutorials**, **Workshops**, and **Research Demonstrations** are being solicited. Submissions for short paper and poster presentations are invited for participation in the **Emerging Results** session. A **Doctoral Symposium** will also be featured, as well as the **New Software Engineering Faculty Symposium (NSEFS 06)**.

Topics of interest to the organizers of ICSE 2006 include, but are definitely not restricted to:

- Software requirements engineering
- Software architectures and design
- Software components and reuse
- Software testing and analysis
- Theory and formal methods
- Computer supported cooperative work
- Human-Computer Interaction
- Software processes and workflows
- Software security
- Software safety and reliability
- Reverse engineering and software maintenance
- Grid software
- Software economics
- Empirical software engineering and metrics
- Aspect-orientation and feature interaction
- Distribution and parallelism
- Software tools and development environments
- Software policy and ethics
- Programming languages
- Object-oriented techniques
- AI and Knowledge based software engineering
- Mobile and ubiquitous computing
- Embedded and real-time software
- Internet and information systems development

ICSE 2006 will be held in Shanghai, China, the epicenter of one of the fastest-growing software communities in the world. Shanghai is a fascinating and invigorating blend of both the dazzlingly ultramodern and the charmingly traditional. The conference venue is the Shanghai International Conference Center, located on the banks of the Huang Pu River which is continually traversed with bustling traffic. The Conference Center looks across the river to the historic Bund, a row of buildings built by the European powers at the turn of the 20th century, and to a modern city intermixed with the considerable charm of the ancient Chinese culture and traditions. *A visa is needed for travel—please visit the web site for more information and other conference details. Travel costs less than you think, so submit your papers!*

Join us for ICSE 2006 in Shanghai for an experience that will combine outstanding technical events with a visit to a city and country that will be truly unforgettable!

Major Submission Deadlines

Research Track	9 September 2005
Education Track	1 October 2005
Workshop and Tutorial Proposals	6 October 2005
Experience, Far East Experience, SE Achievements and Challenges, Research Demos, Emerging Results	30 October 2005
Doctoral Symposium	5 December 2005





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Call for Papers: Research Track

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Mary Lou Soffa, *University of Virginia, USA*

Program Committee

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Kenichi Matsumoto, *NAIST, Japan*
Audris Mockus, *Avaya Labs, USA*
Dirk Muthig, *Fraunhofer IESE, Germany*
Klaus Pohl, *Univ. Duisburg-Essen, Germany*
Lori Pollock, *University of Delaware, USA*
Gregg Rothemel, *U. Nebraska-Lincoln, USA*
Barbara Ryder, *Rutgers University, USA*
Wilhelm Schäfer, *Univ. Paderborn, Germany*
Douglas C. Schmidt, *Vanderbilt Univ., USA*
Walter Tichy, *University of Karlsruhe, Germany*
Frank Tip, *IBM T.J. Watson Res. Ctr., USA*
Jian Zhang, *Chinese Academy of Sci., China*

The ICSE 2006 Research Paper track's goal is to provide a forum for presenting the latest, best, and most important research results in the field of software engineering.

Scope. High quality research submissions are invited for technical papers describing original, unpublished results of theoretical, empirical, conceptual, or experimental research. Papers should describe a novel contribution to software engineering and should carefully support claims of novelty with citations to the relevant literature.

Please note that there are separate Education, Experience, Far East Experience, and Software Engineering: Achievements and Challenges tracks at ICSE 2006. We refer you to these tracks if your work is more suitable for one of these categories.

Topics of interest for the Research track include, but are not limited to:

- Software requirements engineering
- Software architectures and design
- Software components and reuse
- Software testing and analysis
- Theory and formal methods
- Computer supported cooperative work
- Human-Computer Interaction
- Software processes and workflows
- Software security
- Software safety and reliability
- Reverse engineering and software maintenance
- Grid software
- Software economics
- Empirical software engineering and metrics
- Aspect-orientation and feature interaction
- Distribution and parallelism
- Software tools and development environments
- Software policy and ethics
- Programming languages
- Object-oriented techniques
- AI and Knowledge based software engineering
- Mobile and ubiquitous computing
- Embedded and real-time software
- Internet and information systems development

Review and Evaluation Criteria. The ICSE Program Committee will evaluate the technical contribution of each submission as well as its general accessibility to the ICSE audience. Papers will be judged on significance, originality, relevance, correctness, and clarity. Papers must be organized so that they are easily understood by a software engineering audience with varied levels and areas of expertise. The paper should clearly identify what has been accomplished, why it is significant, and how it compares with previous work.

IMPORTANT: Papers that are already currently under review for presentation at another conference, symposium, or workshop at the time of their submission to ICSE 2006 are ineligible for review by ICSE 2006. Similarly, if a paper that is closely related to an ICSE 2006 submission is under review for journal publication at the time of submission to ICSE 2006, then the authors must notify the ICSE Program Committee Co-Chairs before submission. Authors can expect that the ICSE Program Committee Co-Chairs will take vigorous action to sanction authors who ignore these multiple submission rules.

Submission Structure. Your paper must conform to the ICSE 2006 Format and Submission Guidelines and should not exceed ten pages, including all text, references, appendices, and figures. Submissions that exceed the length restriction will be summarily rejected by the ICSE Program Committee Co-Chairs.

Important Dates

Submission Deadline	9 September 2005 at 11:59 EDT
Notification of Acceptance	16 December 2005
Camera-ready Copy Due	24 February 2006

The submission deadline is firm and no extensions will be given.

Acceptance. All accepted contributions will be published in the conference proceedings. CDs of the proceedings will be distributed at the conference.

Contact

- Dieter Rombach, Technische Universität Kaiserslautern, rombach@informatik.uni-kl.de
- Mary Lou Soffa, University of Virginia, soffa@virginia.edu





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Call for Papers: Other Tracks and Events

In addition to the central research track, ICSE 2006 offers many exciting opportunities for practitioners, educators, and researchers to participate in the conference. Highlights are previewed below—for complete information please visit the ICSE 2006 website.

Experience Track

The objective of the Experience Track is to establish a meaningful dialog between software practitioners and software engineering researchers on the results (both good and bad), obstacles, and lessons learned associated with applying software development practices in various environments. The Experience Track will provide accounts of the application of software engineering practices (which may be principles, techniques, tools, methods, processes, etc.) to a specific domain or to the development of a significant software system. Submissions may be case studies that provide a detailed description of how the practice was applied and why (what problems it was intended to address), along with the results achieved, or experience reports that provide a critical review of experiences during one or more phases of a software development project, and draw lessons learned from that experience.

Submissions due: 30 October 2005 **Contact:** Forrest Shull, fshull@fc-md.umd.edu

Far East Experience Track



Shanghai Science and Technology Museum

The objective of the Far East Experience Track is to demonstrate the state-of-the-practice of software engineering in Far East Asia by reporting on various experiences and establishing a dialogue between practitioners and researchers on the benefits, obstacles, and weaknesses of applying software engineering principles, techniques, methods, processes, and tools in an industrial or organizational setting for a variety of applications. Submissions may be case studies that describe the application of a software engineering technique, tool, or process in an industrial or organizational setting; experience reports that describe the history of a software project accompanied by a critical review of experience with the software during one or more development phases; and experimental reports that describe experiments which systematically control the influencing factors and result in quantitative data about some aspect of software development.

Submissions due: 30 October 2005 **Contact:** Kouichi Kishida, k2@sra.co.jp

Education Track

The Software Engineering Education and Training Track of ICSE 2006 will provide a forum for sharing recent advances, trends and concerns with software engineering education. Use of sound research design and empirical analysis supporting findings is strongly encouraged. Experience reports are welcome, though an emphasis should be placed on justifying and explaining conclusions using careful analysis and on providing a thoughtful retrospective. Topics of interest include, but are not limited to, educational modules in emerging areas; integration of research results into courses; use of innovative pedagogical techniques; use of open source tools in courses; integration of agile practices into courses; educating undergraduate and graduate students in research methods; forming learning communities among students; accrediting undergraduate software engineering degree programs; and use of the Software Engineering Body of Knowledge (SWEBOK) and the Software Engineering Volume (SE2004) of the Computing Curriculum in course/curriculum design.

Submissions due: 1 October 2005 **Contact:** Laurie Williams, williams@csc.ncsu.edu

Software Engineering: Achievements and Challenges Track

The technical program of ICSE 2006 will include a new track focusing on major achievements and core challenges in Software Engineering. The objective is to identify and describe precisely both the critical issues that had to be addressed in order to permit the major software achievements, and the deep and enduring technical challenges which remain in theory and practice. Submissions will either identify research achievements—the core and enduring technical problems overcome, and illustrations of their utility; or research challenges—new or enduring technical problems yet to be solved, and illustrations of their utility.

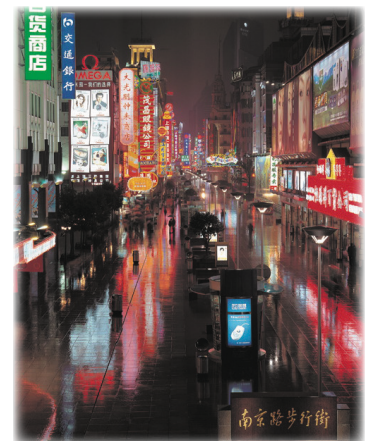
Submissions due: 30 October 2005 **Contact:** Jeff Kramer, j.kramer@imperial.ac.uk

Research Demonstrations

Research demonstrations enable conference participants to view research systems in action, and to discuss the systems with the people who created them. These demonstrations are intended to show early implementations of novel software engineering concepts and are suitable for mature presentations that can be communicated effectively to a large audience using projection technology.

Submissions due: 30 October 2005

Contact: Matthew Dwyer, dwyer@cse.unl.edu and Kokichi Futatsugi, kokichi@jaist.ac.jp



Shopping in Shanghai



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Call for Papers: Other Tracks and Events

Emerging Results



Huangpu River

The Emerging Results session is an informal and highly interactive environment that gives ICSE attendees the opportunity to engage with one another in discussions about ongoing work and critical issues in key areas. Researchers and practitioners can describe their work-in-progress. All ICSE participants can obtain rapid, low overhead introductions to interesting work and technologies in software engineering. The participants can also provide input and feedback directly to the authors. This feedback can be used by authors to help them shape future full ICSE papers. Submissions are in the form of short papers, and accepted submissions will present posters during the session, along with having the short paper published. Topics cover the same interest areas as the Research and Experience Tracks, and Workshops. Submissions should cover work that has a solid technical basis, but perhaps has not been fully validated.

Submissions due: 30 October 2005

Contact: Betty H.C. Cheng, chengb@cse.msu.edu and Beijun Shen, bjshen@vip.sina.com

Workshops

ICSE Workshops provide a forum for groups of participants to exchange opinions, advance ideas, and discuss preliminary results on focused research topics. Workshops may be either one, one and a half, or two days long, and may be held before or after the main conference. Prospective workshop organizers must clearly specify the desired length of their workshop. In addition, they may indicate in their workshop proposals any scheduling preferences they have, but the acceptance of a workshop proposal does not guarantee that the requested dates/times will be accommodated. We assume that submission of a workshop proposal indicates that the prospective workshop organizers are available to run the workshop on any of the days that ICSE 2006 has scheduled for workshops. Scheduling and other constraints might in some cases also require that the intended workshop duration be shortened.

Proposals due: 6 October 2005 **Contact:** Frances Paulisch, Frances.Paulisch@siemens.com

Tutorials

The ICSE tutorial program provides conference participants with the opportunity to gain new insights, knowledge, and skills in a broad range of areas of software engineering. Tutorial participants include software practitioners, managers, teachers, researchers, and students seeking to gain a better understanding of software engineering. Tutorials may be full-day (6 hours) or half-day (3 hours), and the contents can be selected from a wide range of topics, from practical techniques, guidelines, standards, and surveys, to theoretical issues. We encourage tutorials that reflect the conference themes and provide clear utility to conference participants. The topics are not limited to past ICSE tutorial offerings.

Proposals due: 6 October 2005 **Contact:** S.C. Cheung, sccheung@cs.ust.hk

Doctoral Symposium

The Doctoral Symposium's goal is to provide a supportive yet questioning setting in which students can present their work; to provide an opportunity for students to attend ICSE; and, to support the ICSE mission as a world-leading venue for software engineering research. Students will be able to discuss their goals, methods, and results at an early stage in their research. The Symposium aims to provide useful guidance for completion of the dissertation research and initiation of a research career.

Submissions due: 5 December 2005 **Contact:** Anthony Finkelstein, a.finkelstein@cs.ucl.ac.uk



The Bund

New Software Engineering Faculty Symposium

The New Software Engineering Faculty Symposium (NSEFS 06) is intended to help prepare young software engineering academics for successful careers as professors. The event is open to all, but is specifically intended for people who are within two years (either before or after) the awarding of their Ph.D. The Symposium will consist of short presentations by leading software engineering academics, who will provide insights and advice about the various facets of a career as a Software Engineering faculty member. Lively discussion and interaction is expected and encouraged to supplement the presentations.

Contact: Lori A. Clarke, clarke@cs.umass.edu

See you in Shanghai!



People's Square