

**CALL FOR PAPERS
NEXT-GENERATION SOFTWARE ENGINEERING
MINITRACK**

Part of the Software Technology Track

**Fortieth Annual
HAWAII INTERNATIONAL CONFERENCE ON SYSTEM SCIENCES**

**January 3 - 6, 2007
Hilton Waikoloa Village Resort
on the Big Island of Hawaii**

Additional detail may be found on HICSS primary web site: <http://www.hicss.hawaii.edu>
Mirror sites: <http://hicss.sepa.tudelft.nl/> and <http://www.is.cityu.edu.hk/hicss/>

MINITRACK DESCRIPTION

Human understanding and control of complex systems development often seem unattainable goals. The problem is substantial for future construction of network-centric, large-scale software systems. Evidence suggests that software engineering is reaching complexity and scalability limits of technologies evolved in the first fifty years of computing. A need exists to create a Next-Generation Software Engineering for the next fifty years that will reduce cost and complexity for fast and correct development of the information systems of the future. NGSE is envisioned as a computational engineering discipline, with theory-based, semantics-directed automation permitting intellectual control at a scope and scale unattainable with present methods.

The following topics are appropriate for research papers:

- Computation of software functional behavior
- Computation of software quality attributes
- Computation of large-scale compositions of components
- Computational analysis of specifications, architectures, and designs
- New approaches to precise high-level abstraction
- Analytical methods including model checking, proof carrying code, and proof checking
- New approaches to controlling complexity for human intellectual control
- Reduced abstraction set computing and languages
- Semantic models for computational software engineering
- Mathematical foundations for computational software engineering
- Case studies in computational software engineering
- Experimental studies of computational software engineering
- Research and practice implications of NGSE
- Requirements for NGSE from software acquisition and user communities
- Policy (organizational, governmental, societal) issues of NGSE
- Technology transfer issues in moving to NGSE

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IMPORTANT DEADLINES

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| Abstracts are recommended | Authors may contact Minitrack Chairs for guidance and indication of appropriate content at anytime. |
| June 15, 2006 | Authors submit full manuscripts to the Peer Review System. |
| August 15, 2006 | Authors receive decisions regarding paper acceptances. (Note: Acceptance may be conditional; revisions may be requested before final acceptance of paper.) |
| September 15, 2006 | All Authors submit the final version of their accepted papers for publication. At least one author of each paper must register to attend the conference by this date. Early Registration fee applies. |
| September 16, 2006 | General Registration fee applies until December 15. |
| October 15, 2006 | Cancellation penalties apply after this date. After cancellation of registration, papers will not be included in the Proceedings. |
| December 1, 2006 | Hotel rates are not guaranteed after this date. |
| December 15, 2006 | On site registration fee applies after this date. No refunds after this date. |

INSTRUCTIONS FOR PAPER SUBMISSION

- HICSS papers must contain original material not previously published, or currently submitted elsewhere.
- Consult the conference website for the listing and description of Minitracks for HICSS-40.
- (optional) Contact the Minitrack Chair(s) by email for guidance and verification of appropriate content.
- Do not submit the manuscript to more than one Minitrack Chair. If unsure of which Minitrack is appropriate, submit abstract to the Track Chair for guidance.
- Submit your full paper according to the detailed formatting and submission instructions found on the HICSS website. Note: All papers will be submitted in double column publication format

and limited to 10 pages including diagrams and references.

HICSS conferences are devoted to advances in the information, computer, and system sciences, and encompass developments in both theory and practice. Invited papers may be theoretical, conceptual, tutorial or descriptive in nature. Submissions undergo a peer referee process and those selected for presentation will be published in the Conference Proceedings. Submissions must not have been previously published.

For the latest information; visit the HICSS web site at: <http://www.hicss.hawaii.edu>
or the mirror sites : <http://hicss.sepa.tudelft.nl/> and <http://www.is.cityu.edu.hk/hicss/>

CONFERENCE ADMINISTRATION

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2007 CONFERENCE VENUE

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