



SEHC'10

2nd International Workshop on Software Engineering in Health Care

www.simbioses.ca/SEHC10

An ICSE 2010 Workshop
Cape Town, South Africa
May 3-4

Important Dates

Papers and position statements due: January 20

Notice of acceptance: February 20

Camera ready papers due: March 3

The world faces increasing reliance on software-intensive systems to manage quality health care services, from scheduling, billing, and health care records to the control of life-critical devices and process-guided procedures. There are important concerns about software quality, security, and privacy, user interfaces, system interoperability, process automation and improvement, and many other issues quite familiar to software engineering practitioners and researchers.

This workshop will build upon the success of the ICSE 2008 Software Engineering in Healthcare track, the ICSE 2009 First Software Engineering in Health Care Workshop, plus several related workshops. The goal of this second workshop is to continue the development of an interdisciplinary community **to identify and address the software engineering issues arising in the healthcare domain**. In addition, this workshop will initiate an effort to gather a small and compelling set of benchmark case studies to form a basis for comparative evaluation and understandings.

Structure: The ICSE 2010 Workshop on Software Engineering in Healthcare invites broad participation from people who are actively engaged in identifying key research and technological issues, including those who are doing so through the actual practice of healthcare and those who are developing prototypes and solutions aimed at dealing with these issues. The 2-day workshop will consist of paper presentations, panel-led discussions, working group sessions, and presentations by invited speakers.

Submissions: Submissions are solicited that address both research and practice. Submissions can describe evaluated techniques as well as emerging approaches, problems, or opportunities. Submissions can be Research Papers, Experience Reports, or Position statements:

- **Research Papers** describe how software engineering techniques, understandings, systems, or tools have, or might, make a substantial improvement in health care practices. Papers on the applicability of software engineering understandings on such issues as quality, interoperability, user interfaces, and process improvement in health care are also solicited. While reports on successes are most welcome, well-reasoned papers describing the potential of software engineering approaches for addressing important health care problems are also encouraged.
- **Experience Papers** discuss lessons learned, key unaddressed problems, and experiences of practitioners, with a special focus on issues that seem particularly ripe as topics of software engineering research. Experience reports may involve case studies, experimental evaluation, or insightful observations from past or on-going projects. Experience reports may focus on principles, techniques, processes, or tools and their impact, strengths, and weaknesses.
- **Position Statements** advance more formative ideas and will be used to identify potential panels and working group discussions to complement the paper presentations of more mature work. We invite the submission of position statements from people wishing to participate in these discussions.

Papers and position statements will be reviewed by the Program Committee and all accepted submissions will be published in the workshop proceedings. In all cases, the submission's format must conform to the published ICSE 2010 format and submission guidelines ([ICSE 2010 submission guidelines](#)). Position statements must be between two and four pages long, and research papers and experience reports must not exceed eleven pages (including all text, figures, references and appendices). The results described in these submissions must be original and not under review elsewhere at the time of review by the Workshop Program Committee.

All accepted submissions will be published in the ACM and IEEE Digital Libraries and will appear in the companion volume of the ICSE 2010 Proceedings. At least one author of an accepted paper is required to register for the workshop and present the paper at the workshop in order for the paper to be included in the proceedings and ACM and IEEE Digital Libraries. After the workshop, the authors of selected best papers will be invited to submit a significantly revised and extended version of their papers for consideration of publication in a special issue in a journal; such papers will be subject to another round of refereeing.

Example Topics include, but are not limited to:

- Software quality issues in health care systems and processes
- Integration of software-enabled medical devices within health care systems and processes
- Safety and security of medical devices, health care systems and processes
- Requirements engineering for health care systems and processes

(involving the various stakeholders)

- Healthcare process definition, analysis, automation, and improvement
- Architectures, integration, interoperability, and evolution for healthcare systems
- User interface issues in health care systems
- Software design considerations for assistive living and eldercare environments
- Other software engineering topics relevant to health care systems and processes

Program Committee:

- Lori Clarke, University of Massachusetts, clarke@cs.umass.edu (co-chair)
- Jens Weber, University of Victoria, Canada, jens@uvic.ca (co-chair)
- Elske Ammenwerth, University for Health Sciences, Medical Informatics and Technology, Austria, elske.ammenwerth@umit.at
- Ruth Breu, University Innsbruck, Austria, ruth.breu@uibk.ac.at
- Jeremy Gibbons, Oxford University, UK, jeremy.gibbons@comlab.ox.ac.uk
- Mats Heimdahl, University of Minnesota, USA, heimdahl@cs.umn.edu
- Martin Höst, Lund University, Sweden, martin.host@cs.lth.se
- John Hatcliff, Kansas State University, USA, hatcliff@cis.ksu.edu
- Joseph Jasinski, IBM Research, USA, jmjasin@us.ibm.com
- Craig Kuziemsky, University of Ottawa, Canada, kuziemsky@telfer.uottawa.ca
- John C. Mitchell, Stanford University, USA, mitchell@cs.stanford.edu
- Øystein Nytrø, Norwegian University of Science and Technology, Norway, nytroe@idi.ntnu.no
- Lee Osterweil, University of Massachusetts, USA, ljo@cs.umass.edu
- Barbara Paech, University of Heidelberg, Germany, paech@informatik.uni-heidelberg.de
- Mor Peleg, University of Haifa, Israel, morpeleg@mis.hevra.haifa.ac.il
- Liam Peyton, University of Ottawa, Canada, lpeyton@site.uottawa.ca
- Andy Podgurski, Case University, USA, andy@eecs.case.edu
- Morgan Price, University of British Columbia, Canada, morgan@virtuallypriceless.org,
- Pradeep Ray, University of New South Wales, Australia, pray@unsw.edu.au
- Joachim Reiss, Siemens, Germany, joachim.reiss@siemens.com
- Kamram Sartipi, McMaster University, Canada, sartipi@mcmaster.ca
- Chris Seebregts, South African Medical Research Council and University of KwaZulu-Natal, South Africa, chris.seebregts@mrc.ac.za
- Janos Sztipanovits, Vanderbilt University, USA, janos.sztipanovits@vanderbilt.edu
- Eleni Stroulia, University of Alberta, Canada, stroulia@cs.ualberta.ca
- Kristin Tolle, Microsoft Research, USA, ktolle@microsoft.com
- Laurie Williams, University of North Carolina State, USA, williams@csc.ncsu.edu
- Alfred Winter, University of Leipzig, Germany, alfred.winter@imise.uni-leipzig.de