Third International Symposium on Foundations of Health Information Engineering and Systems

United Nations University, Macau

21st – 23rd August, 2013

UNITED NATIONS UNIVERSITY

UNU-IIST
International Institute for Software Technology

Lecture Notes in Computer Science
LNCS   LNAI   LNBI

`http://www.cs.ox.ac.uk/FHIES2013/`

Background

ICT plays an increasingly enabling role in addressing the global challenges of healthcare, in both the developed and the developing world. The use of software in medical devices has caused growing concerns in relation to safety and efficacy. The increasing adoption of health information systems provides great potential benefits but also poses severe risks, both with respect to security and privacy and in regard to patient safety. Hospital and other information systems raise important issues of workflow support and interoperability. Regulators, manufacturers and clinical users have pointed out the need to research sound and science-based engineering methods that facilitate the development and certification of quality ICT systems in health care. Such methods may draw from or combine techniques from various disciplines, including but not limited to software engineering, electronic engineering, computing science, information science, mathematics, and industrial engineering.

Aims

The purpose of the symposium series on *Foundations of Health Information Engineering and Systems* is to promote a nascent research area that aims to develop and apply theories and methods from a variety of disciplines for the purpose of modeling, building and certifying software-intensive ICT systems in healthcare. A particular objective of FHIES is to explicitly include a focus on healthcare ICT applications in the developing world (in addition to systems used in the developed countries), since unique engineering challenges arise in that special setting. Because humans often play a pivotal role in the process of using such systems, theories from the human factors engineering community may need to be integrated with methods from the technology-oriented domains in order to create effective engineering methodologies for socio-technical systems in the healthcare domain. Previous FHIES symposia were held in 2011, in Mabalingwe, South Africa (with post-conference proceedings in Springer LNCS 7151, and in 2012, in Paris, France (with post-conference proceedings to appear in Springer LNCS).

Scope

FHIES seeks contributions from both the solution domain (engineering methods) and the problem domain (healthcare and health informatics). Solution-domain papers should present their methods in the context of a concrete application in healthcare, while problem-domain papers should be devised to educate the methods community about unique challenges and characteristics of the healthcare domain. Topics of interest include but are not limited to:

- modelling, analysis, simulation and verification in health informatics;
- design and verification techniques for software-based ICT and software-intensive medical devices;
- application and integration of foundational methods from different disciplines in engineering and science to health informatics;
- specific engineering challenges of ICT-based health service delivery in different settings, especially in the developing world.

For a more detailed list of topics, see the symposium website.

Categories

We solicit high quality full submissions in the following categories:

- original research contributions (16 pages max)
- application experience, case studies and software prototypes (16 pages max.)
- surveys, comparisons, and state-of-the-art reports (16 pages max.)
- position papers identifying challenges and milestones of a research project (8 pages max.)

We also invite short submissions for special sessions:

- student papers on work in progress on an MSc or PhD project (4 pages max.)
- tool demonstrations (2 pages max.)
- proposals to organize birds-of-a-feather sessions or panels (2 pages max.)
- extended abstracts (2 pages max.)

Submissions

Submissions should be in English, prepared in the LNCS format (`http://www.springer.de/comp/lncs/authors.html`), and all page limits are measured in this format. For evaluation criteria, see the website. Papers should be submitted via `http://www.easychair.org/conferences/?conf=fhies2013`. Submission constitutes a commitment for at least one author to attend the symposium and present the paper, if it is accepted.

Publication

All accepted submissions will be distributed in a technical report at the Symposium. After the event, postproceedings will be published in Springer LNCS. Authors of all accepted full submissions will be invited to revise their papers, in order to resolve any larger issues raised during reviewing. Authors of accepted short submissions will be invited to submit full papers for review and LNCS publication too.

Important dates

- » Submission deadline: **extended to May 20th, 2013**
- » Notification of acceptance: **June 12th, 2013**
- » Delivery of preproceedings version: **July 17th, 2013**
- » FHIES 2013 Symposium: **August 21st–23rd, 2013**
- » Submission for postproceedings review: **October 4th, 2013**
- » Notification of acceptance: **October 11th, 2013**
- » Camera ready version: **October 18th, 2013**

Organizers

General chairs:

- Zhiming Liu, United Nations University, MO
- Jens Weber, University of Victoria, CA

Programme chairs:

- Jeremy Gibbons, University of Oxford, UK
- Wendy MacCaull, St. Francis Xavier University, CA

For the Programme Committee, see the website.