The Software Quality Institute,
Institute for Integrated and Intelligent Systems (IIIS)
and School of ICT

warmly welcomes

Professor Ina Schieferdecker
Professor on Design and Testing of Communication-Based Systems - Technical University Berlin
Head - Competence Center Modelling and Testing for Software-Intense Systems - Fraunhofer FOKUS, Berlin

to Griffith University Nathan Campus

Thursday, 11 June 2009
11.00 am

Seminar Presentation
Advances in Test Automation

Abstract
The quality of software-based systems becomes increasingly important as the influence of software in almost every area of economy and society is growing. Today, software is used in safety- and security-critical domains for systems where reliability, robustness, trustworthiness, etc. are essential. Due to the variety of system quality aspects (as for example defined by ISO 9126), there are numerous techniques such as constructive, analytical, or process-oriented techniques that are used to assess and assure system quality in the system development and maintenance process. However, analytical methods and in particular dynamic testing approaches remain a central and often also exclusive instrument to check the resulting quality of the overall system. For years, experts have been convinced that test design is the central element to successful and meaningful software testing. In the meantime, however, it has become apparent that testing requires all the typical elements of software engineering: tests are software-based systems themselves and need to be engineered, designed, verified, validated, and executed like any other software-based system. Specialities of test systems involve the ability to control, stimulate, observe, and evaluate the system under test. Although standard development and programming techniques are mostly applicable, specific solutions for the development of test systems respecting their peculiarities seem reasonable. This motivated the development and standardisation of specialised test specification and test implementation languages, which the talk will review, and put into the context of model-based and model-driven testing approaches.

Biography
Ina Schieferdecker is Professor on Design and Testing of Communication-Based Systems at Technical University Berlin and is heading the Competence Center Modelling and Testing for Software-Intense Systems at Fraunhofer FOKUS, Berlin.

She works in the area of design, analysis, testing and evaluation of communication-based systems using specification-based techniques like UML (Unified Modelling Language), MSC (Message Sequence Charts) and TTCN-3 Testing and Test Control Notation. Prof. Schieferdecker authored many scientific publications in the area of development and testing. She is an active member in the standardization of TTCN-3 by ETSI and of the UML Testing Profile by OMG. She is co-founder of the Testing Technologies IST GmbH, Berlin and member of the German Testing Board. In 2009, she was elected as a member of acatech, the Academy of Technical Sciences.

Date Thursday, 11 June 2009
Time 11.00 am - 12.00 noon
Venue Building N34; Room 0.04
Rsvp l.macfarlane@griffith.edu.au