Invitation to Course

From Domains to Requirements

Prof. Dr. Dr.h.c. Dines Bjørner

MAE, MRANS (AB), ACM Fellow, IEEE Fellow

Danmarks Tekniske Universitet, Lyngby, Danmark

12 - 30 April 2010

(daily, 9am-11am & 2pm-4pm)

Aims

- The aim of the course is to cover a number of "front-of-the-wave" software engineering topics: (1) The triptych of software engineering phases of domain engineering and requirements engineering. It is the aim to show how these phases relate. (2) To show the dual benefit of both precise national language narratives coupled with formal specification. (3) To show that the new element of software engineering, namely domain engineering, has a number of precise methodological stages of intrinsic, support technology, rules & regulations, script, management & organisation, and human behaviour facets.

- To show that the requirements engineering now has a rather different methodology, including: domain requirements, with its projection, instantiation, determination, extension, and fitting domain-to-requirements operations.

Objectives

- The objectives of the course and the course project is to (1) secure that course participants get a professional education and part-training as responsible software engineers, and are exposed to a number of exciting research topics. (2) The objectives are further that the course participants become acutely aware of and familiar with ability to express themselves, both in informal, yet precise natural language, and in some formal specification language. (3) Finally it is an objective of the course that the course participants discover the need for a serious attention, in software engineering, as well as in computing science research, to domain engineering.

- It is also an objective for the students to learn to write formal specification using RSL, the **R**AISE **S**pecification **L**anguage. RAISE stands for **R**igorous **A**pproach to **I**ndustrial **S**oftware **E**ngineering. Students may work out the formal aspects of their course report in Alloy, Event B, VDM-SL or Z, instead of RSL.

Course starts on 12 April 2010, 9-11am, SR Zemanek

For full information please visit:

http://www.complang.tuwien.ac.at/bjorner/

Biography: Dines Bjørner has been a professor at the Technical University of Denmark (DTU) in Lyngby, close to Copenhagen, Denmark from 1976 to 2007. He specializes in research into domain engineering, requirements engineering and formal methods. Prof. Bjørner is a knight of the Order of the Dannebrog and won the John von Neumann Medal in Budapest, Hungary in 1994. He received the Ths. Masaryk Gold Medal, Brno, Czech Republic in 1996 and a Dr.h.c. from the Masaryk University, Brno, Czech Republic in 2004. He is a Fellow of the IEEE (2004) and ACM (2005). (`http://www2.imm.dtu.dk/~db`)