Formal Methods in the Teaching Lab

EXAMPLES, CASES, ASSIGNMENTS AND PROJECTS ENHANCING FORMAL METHODS EDUCATION

A WORKSHOP AT THE FORMAL METHODS 2006 SYMPOSIUM

SATURDAY, AUGUST 26, 2006

MCMASTER UNIVERSITY, HAMILTON, ONTARIO, CANADA

Program

Session 1 (Chair: José Oliveira)

9h00 *Tool Support for Learning Buchi Automata and Linear Temporal Logic*, by Yih-Kuen Tsay, Yu-Fang Chen, and Kang-Nian Wu

9h30 *Supporting Formal Method Teaching with Real-Life Protocols*, by Hugo Brakman, Vincent Driessen, Joseph Kavuma, Laura Nij Bijvank and Sander Vermolen

10h00 *A Playful Approach to Formal Models*, by Katharina Spies, Bernhard Schaetz

10h30 *COFFEE BREAK*

Session 2 (Chair: Bernhard Aichernig)

11h00 *Two courses on VDM++ for Embedded Systems: Learning by Doing*, by Peter Gorm Larsen

11h15 *Comments on several years of teaching of modelling programming language concepts*, by J W Coleman, N P Jefferson, and C B Jones

11h30 *A Graduate Seminar in Tools and Techniques*, by Patrick J. Graydon, Elisabeth A. Strunk, M. Anthony Aiello, and John C. Knight

11h45 *Teaching the Mathematics of Software Design*, by Emil Sekerinski

12h00 *Basic Science for Software Developers*, by David Lorge Parnas and Michael Soltys

12h15 *Introducing Model Checking to Undergraduates*, by Abhik Roychoudhury

12h30 *LUNCH BREAK*

Session 3 (Chair: Eric Hehner)

14h00 *Evaluating a Formal Methods Technique via Student Assessed Exercises*, by Alastair F. Donaldson and Alice Miller

14h15 *Enhancing student understanding of formal method through prototyping*, by Andreea Barbu and Fabrice Mourlin

14h30 *From Run-time Analysis to Static Analysis of Java Programs: A Teaching Approach*, by Christelle Scharff and Sokharith Sok

14h45 *The Use of an Electronic Voting System in a FM Course*, by Alice Miller and Quintin Cutts

15h00 *Teaching with the Computerised Package Language, Proof, and Logic (LPL)*, by Roussanka Loukanova

15h15 *COFFEE BREAK*

Session 4 (Chair: Kees Pronk)

15h45 *DISCUSSION FORUM*

17h00 *END OF WORKSHOP*