Applications are invited for two PhD student positions at the School of Computer Science, Reykjavik University. The positions are part of a three-year research project funded by Rannis (the Icelandic Fund for Research), under the supervision of Dr. Marjan Sirjani.

Aim of the project

The aim of the project is to develop a methodology for building distributed real-time applications with formal verification support. This methodology includes the modeling language, property specification language, the analysis techniques and tools, and deployment.

There are various modeling languages and logics and a number of model checking tools for real-time systems. On the other hand, actor-based languages are used to design real-time embedded systems, wireless sensor networks, and web services. But there is no work presenting a real-time actor model in distributed systems with formal verification support. Therefore, this project will contribute the much needed extensions of actor-based modeling languages and associated verification techniques to the real-time setting.

Research environment

The research within the project will be carried out in close collaboration with our international long-term collaborators Carolyn Talcott (SRI International), Frank de Boer (CWI), and Ramtin Khosravi (University of Tehran); and our expert colleagues at Reykjavik University Luca Aceto and Anna Ingolfsdottir.

The successful candidates will benefit from, and contribute to, the research environment at the School of Computer Science, Icelandic Center for Research on Software Engineering (ICE-ROSE) http://en.ru.is/icerose/, Icelandic Centre of Excellence in Theoretical Computer Science (ICE-TCS) http://www.icetcs.ru.is/, and Center for Analysis and Design of Intelligent Agents (CADIA) http://cadia.ru.is/ at Reykjavik University.
Qualification requirements

Applicants for the PhD studentships should have a good MSc degree in Computer Science, or closely related fields. Some previous knowledge of modeling, verification, and in general formal methods in software engineering is desirable but not a necessary.

Remuneration

PhD position: 250,000 ISK per month before taxes, for three years, starting as early as possible and no later than October 2011.
(The current exchange rate of Icelandic Krona is approximately 150 ISK for 1 Euro)

Application details

By Friday, 8 April 2011, interested applicants should send their CV, including a list of publications where applicable, in PDF to the address below, together with a transcript of their academic record, a statement outlining their suitability for the project and the names of two referees.

Dr. Marjan Sirjani
email: marjan@ru.is

We will start reviewing applications as soon as they arrive, and will continue to accept applications until the positions are filled. However, we strongly encourage interested applicants to send in their applications as soon as possible.

About the School of Computer Science at Reykjavik University

The School of Computer Science at RU (http://www.reykjavikuniversity.is/computer-science/) has approximately 500 students at the undergraduate, masters and doctorate levels. The School is home to several strong research groups and the main research areas are algorithmics, artificial intelligence, concurrency theory, databases, human-computer interaction, natural language processing, software engineering, theoretical computer science and virtual environments.

The School of Computer Science at Reykjavik University has ties with several leading foreign universities, facilitating collaboration, as well as faculty and student exchanges. In particular, the School has a joint M.Sc. degree in Computer Science with the University of Camerino, Italy, and a joint Ph.D. degree program with KTH, Stockholm, Sweden.

Information about Ph.D. studies at the School of Computer Science is available at http://www.reykjavikuniversity.is/departments/school-of-computer-science/ph.d-studies/