New Developments in Operational Semantics

School of Computer Science, Reykjavik University

One PhD studentship and one postdoctoral position

Applications are invited for one PhD studentship and one postdoctoral position 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 direction of Luca Aceto and Anna Ingolfsdottir. The aim of the project, which has MohammadReza Mousavi (TU Eindhoven) as co-proposer, is to contribute further advances to the study of the meta-theory of structural operational semantics. In particular, the project aims to

1. Generalize some of the existing results from the meta-theory of SOS in order to improve their applicability;

2. Establish new meta-results regarding security-related notions;

3. Provide compositional reasoning methods for logics of security;

4. Apply the resulting theory to a number of case studies dealing with modern programming languages and formalisms; and

5. Develop prototype tool support for experimenting with SOS language specifications.

As witnessed by the above-mentioned aims, the proposed research programme within the project is wide ranging in scope, offering considerable flexibility to the successful candidates to pursue particular research interests.

The successful candidates will benefit from, and contribute to, the research environment at the Icelandic Centre of Excellence in Theoretical Computer Science (ICE-TCS). For information about ICE-TCS and its activities, see http://www.icetcs.ru.is/.

Qualification requirements

Applicants for the PhD studentship should have a good MSc degree in Computer Science, Mathematics or closely related fields, and have a strong background in discrete mathematics and formal systems. Some previous knowledge of topics from at least one of concurrency theory, process calculi and structural operational semantics is not a prerequisite, but would be desirable.

Applicants for the postdoctoral position should have a PhD degree in Computer Science, Mathematics or closely related fields. Previous knowledge of at least one of concurrency theory, mathematical logic and its applications in computer science, process calculi and structural operational semantics would be desirable.

Remuneration

PhD position: 250,000 ISK (roughly 2,200 euros) per month before taxes, for three years, starting in October 2008 or January 2009.

Postdoc position: 350,000 ISK (roughly 3,080 euros) per month before taxes, for one year, starting in October 2008 or January 2009. The position is renewable for up to two years pending availability of funding and mutual satisfaction.

Application details

Interested applicants should send their CV, including a list of publications where applicable, in PDF to the addresses below, together with a statement outlining their suitability for the project and the names of two referees.

Luca Aceto
email: luca@ru.is

Anna Ingolfsdottir
email: annai@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 Reykjavík University offers undergraduate programs in computer science, software engineering and mathematics. The School also offers M.S. degrees in computer science, language technology, and software engineering, as well as a PhD program. The School of Computer Science has a strong research focus in multiple areas and has good research ties with a number of universities and institutions around the world. Reykjavík University is entrepreneurial in nature and places particular emphasis on active cutting-edge research, excellence in teaching, and ties with industry and the international community.

Further information on the School of Computer Science is available at http://www.ru.is/cs.

In addition to offering a friendly, open-minded society and a high quality of life, Iceland is home to several successful industrial enterprises with substantial international operations, including many in the field of information technology. Reykjavik University has good relations with local industry and receives from it good support for both its educational programs and research. Furthermore, Reykjavík University, and in particular the School of Computer Science, has ties with several leading foreign universities, facilitating collaboration, as well as faculty and student exchanges.