Concurrency Engineering of Multi-Core Applications

Dr. Raimund Kirner (r.kirner [@] herts.ac.uk)

We welcome applications of PhD studentships in the domain of concurrency engineering of multi-core applications. The Compiler Technology and Computer Architecture group has a strong reputation for its work on compiler technologies for distributed and parallel computing platforms, and dependable computing. It collaborates with leading hardware institutions in academia and industry. Our involvement in research grants also offers students the experience to work with industry. Graduates from our group are looked after by industry, working at renowned companies such as Intel. The University of Hertfordshire is situated in Hatfield, just north of London.

We can offer several topics in the domain of Concurrency Engineering of Multi-Core Applications, which are, for example, related to the following topics:

- Design and implementation of concurrent programming models
- Program optimisations to improve performance (latency, throughput) of parallel programs
- Efficient scheduling on parallel platforms, including heterogeneous hardware
- Resilience and fault tolerance of parallel programs
- Performance analysis of concurrent programs

For more details of our research activities and publications in that area please read further at: [http://go.herts.ac.uk/Raimund_Kirner](http://go.herts.ac.uk/Raimund_Kirner)

Applicants should have good analytical skills and being fluent in at least one 3rd generation programming language, such as C++, Java, ML, C, etc. Knowledge of compiler implementation or parallel computing is a plus.

Successful candidates are eligible for a PhD studentship awarded by the University of Hertfordshire, with a bursary of about £ 14,553 per annum. A home student’s fee will also be covered. Information about the current tuition fees can be found at [https://www.herts.ac.uk/study/fees-and-funding](https://www.herts.ac.uk/study/fees-and-funding)

**Application procedure:**
To apply one needs to fill out an application form which has to be requested from and returned to Mrs Emma Thorogood, Tel: +44-1707-28-6417, Research Degrees Administrator, Doctoral College, University of Hertfordshire, College Lane, Hatfield, Herts, AL10 9AB, email: e.thorogood [AT] herts.ac.uk. The topic “Programming Languages and Compilation Technology” has to be given on the application form to reply to this post.

Please contact directly Dr. Raimund Kirner (r.kirner [@] herts.ac.uk) if you have any specific questions with respect to this research area.