



## Student Positions available for Automotive, Industrial Automation and Multi-core

We are now accepting applications for student positions in the area of automotive, embedded system design and communication systems at the non-profit research institute fortiss GmbH.

fortiss offers the unique opportunity to be directly involved in interesting research projects. In cooperation with the researchers at fortiss, you will develop new concepts and implement interesting demonstrators.

Applicants should be enrolled in a Computer Science or Electrical Engineering program (or equivalent). The candidates should have experience in one or more of the following areas: (i) software engineering, (ii) embedded system design, (iii) communication protocols, (iv) micro-controller programming, and (v) modelling tools. Possible programming languages are C, C++ or Java.

fortiss GmbH is a recently founded non-profit research organization funded by the Bavarian Ministry for Economics. fortiss has tight links to Technische Universität München and the Department of Informatics. The group Cyber-Physical Systems focuses on model-driven development in the domains automation and automotive.

fortiss is situated directly at the subway station Nordfriedhof (line U6) 10 minutes from Marienplatz and 20 minutes to the TUM in Garching. We offer a nice surrounding, free drinks, and a very good infrastructure.

Interested applicants should submit a short curriculum vitae and academic transcripts.



For any enquiries or further information, send an E-mail to: Dr. Christian Buckl ([buckl@fortiss.org](mailto:buckl@fortiss.org)) or visit our web site at <http://www.fortiss.org>.

## Open Positions

### 1. Area: Multi-core

#### *Model-based development of multi-core systems*

The group parallel architecture designs model-driven development tools for multi-core systems with a focus both on functional and extra-functional (e.g. timing, energy efficiency, communication) requirements. In the context of this research students can get involved in different ways: support of new multi-core architectures, development of new modeling paradigms, evaluation on hardware description techniques, and implementation of demonstrator setups.

*Duration:* min. 6 months

*Useful skills:* C/C++ Programming, Hardware Architectures, Model-based development, domain-specific development tools, Eclipse

*Contact:* Andreas Raabe (raabe@fortiss.org)

### 2. Area: Sensor Networks

#### *Porting of eSOA project to Contiki*

Within the project eSOA, the group has developed a run-time system for sensor networks based on TinyOS. Due to different restriction (e.g. no dynamic memory allocation) it is the goal of the project to port the run-time system to the operating system Contiki.

*Duration:* min. 6 months

*Useful skills:* C/C++ Programming, Operating Systems, Sensor Networks

*Contact:* Stephan Sommer (sommer@in.tum.de), Christian Buckl (buckl@fortiss.org)