der Bundeswehr
Universität **München**

Formal methods in control (Munich, Germany)

We invite applications for a doctoral researcher position in the field of formal methods in control. The successful candidate is expected to advance theory of as well as computational methods for abstraction-based controller synthesis, to a degree that facilitates routine, fully automated, practical application of the approach to nonlinear continuous-state plants and complex specifications. The focus is on synthesis algorithms that are both efficient and formally correct.

The project involves theoretical work, algorithm and software development, and, on a small scale, experimental work. There is no teaching requirement and no coursework to be completed. Competitive salary is offered according to the tariff "TVOeD Bund, E 13".

Required qualifications:

- MSc degree (or equivalent, giving access to doctoral studies) in Electrical Engineering, Mathematics, Computer Science, or a related field. Students about to complete their MSc will also be considered.

- Excellent academic record, showing a strong theoretical/mathematical background and a strong interest in dynamical systems.

- Proficiency in programming (C or Ada/SPARK).

- Excellent communication skills in English (CEFR level C1).

In addition, experience in one of the following fields would be a plus: Set-valued or validated numerics; dynamic programming; formal methods in control; reactive synthesis; professional-grade software development.

Your complete application consists of the following documents, which should be sent as a single PDF file to the email address given below (deadline: Feb 15, 2016): CV with photo; one-page cover letter (clearly indicating available start date as well as relevant qualifications, experience and motivation); university certificates and transcripts (both BSc and MSc degrees); contact details of up to three referees; possibly an English language certificate and a list of publications. All documents should be in English, with the exception of university certificates and transcripts, which may also be in German. The position is open to applicants worldwide; no special security clearance necessary.

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