



2 PHD POSITIONS AND 1 POSTDOC POSITION AVAILABLE IN INFORMATION AND COMMUNICATION TECHNOLOGY FOR ELECTRICAL MOBILITY

Applications are invited for two PhD positions (initially two years) and one Postdoc position (initially one year) at the Institute for Informatics at Technische Universität München in Garching, Germany. The positions are immediately available within the electrical mobility project "E-Tour Allgäu" and will be co-supervised by Martin Leucker and Martin Sachenbacher.

Background on "E-Tour Allgäu"

Electrical vehicles will play a tremendously important role in the road traffic of the future. They offer the potential to reduce the dependency on dwindling fossil fuel reserves, while at the same time they help curb emissions of climate-relevant gases and other harmful pollutants. Against that background, the German government has launched an initiative to bring one million electrical vehicles to the street by the year 2020.

As part of this effort, Technische Universität München participates in the "E-Tour Allgäu" project, which runs from 2009 to 2011. The goal of "ETour Allgäu" is to show how sustainable electrical transportation, using local and renewable energy sources, can be realized in a rural hilly region southwest of Munich, called the Allgäu. In this region, a diverse fleet of electric cars will be operated and monitored under typical modes of usage, such as commuting to nearby Munich.

Within this project, the TU Munich is responsible for foundational questions regarding information and communication technology for electrical mobility. We are therefore looking for PhD candidates and Postdoctoral researchers.

Your responsibilities

Within the project, you will work on one of the following topics:

- Cruising range prediction and energetic route optimization for electric cars, using topological information and traffic data
- Modeling and simulation of optimal energy buffering strategies for electric cars, based on battery models and stochastic user models

Your background

You completed a degree in computer science, applied mathematics, or physics with outstanding performance. Also required are personal initiative, creativity and ability to effectively work in a team, including sufficient level of written and spoken English. Preferably, you also have experience in one or more of the following topics:

- Formal methods, logics, model checking
- Stochastic modeling techniques
- Numerical methods for linear and non-linear systems

What we offer

We offer fixed term contracts of initially two resp. one year, with the option for renewals. Salaries will be according to the TV-L E13 scale and are based on qualification and personal status. Full-time positions are, in principle, divisible (§7 Abs. 1 TzBfG).

Technische Universität München is an equal opportunity employer. In accordance with its policy of increasing the proportion of women in this type of employment, the university actively encourages applications from women. For persons with equal qualification, preference will be given to people with physical disabilities.

Your application

PhD candidates are invited to submit by **September 15, 2009**

- Curriculum vitae
- List of completed courses in computer science and mathematics
- List of exams passed and grades obtained

Postdoc applicants are invited to submit by **September 15, 2009**

- Curriculum vitae including list of publications
- Contact information for at least two references

Please send your application (PDF) to etour@in.tum.de

If you have further questions, feel free to contact Martin Leucker or Martin Sachenbacher:

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