

Within the Bavarian excellence program "Identification, Optimization and Control with Applications in Modern Technologies" some research scholarships with respect to robotics, space exploration and sensor networks are offered:

Within the international doctorate program on

Identification, Optimization and Control with Applications in Modern Technologies

12 positions, starting on 01/01/2006,

are offered. The program is a joint effort of the Universities of Bayreuth, Erlangen-Nürnberg and Würzburg, sponsored by the Network of Excellence Bavaria (ENB). It offers outstanding young academics the opportunity to pursue their PhD under the supervision of an advisor selected from the professors of the participating universities to best match the candidate's qualifications. Additionally, in parallel with the PhD education, the program entails summer schools, workshops, as well as a stay abroad. Detailed information may be found at

<http://www.am.uni-erlangen.de/elitenetzwerk-optimierung>

The PhD students are employed

initially for 2 years,
paid with salary according to BAT IIa (2/3).

The position requires an MS degree (or the German 'Diplom') in mathematics, technomathematics, economathematics, computational engineering or other engineering disciplines.

The positions are suited to persons with physical disabilities. Applicants with disabilities will be preferred if they have similar qualifications than other applicants. The participating universities support equal opportunities for women. Therefore, women are explicitly invited to apply.

Applications should include a resume, copies of certificates, a summary of the master's thesis and two confidential letters of recommendation, and should be sent in electronic form¹, not later than 1. September 2005 to

Prof. Dr. G. Leugering
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Friedrich-Alexander-University of Erlangen-Nürnberg
Martensstr. 3
91058 Erlangen
email: elitenetzwerk@am.uni-erlangen.de

¹copies of certificates and letters of recommendation may also be sent by post to the above address

Potential PhD-topics related to robotics (to be supervised by Prof. Schilling, University Würzburg) include :

- Optimisation of trajectories in cooperating robot systems
- Sensor data fusion for navigation of cooperating mobile robots
- Formations of Mobile Robots Formed in Analogy to Heat Dissipation Approaches

- Determination of optimal interplanetary trajectories for satellites including fly-bys and atmospheric arcs
- Formation control and stabilisation in networks of dynamical systems under limited communication
- Optimum combinations of static and mobile sensor networks
- Optimal adaptation of sensor networks to dynamic environments
- Optimal adaptation and self-organisation of groups of robots during obstacle avoidance

For further information on these robotics topics please contact :

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