
The Energy Information Networks & Systems group at the Department of Electrical Engineering and Information Technology seeks to fill the position of a

Research Assistant (Doctoral Student) on Resilient Decentral Control

The position is fully funded, initially has a fixed-term contract for 3 years, and is to be filled as soon as possible.

The Energy Information Networks & Systems group explores the future of energy management. This includes methods for the analysis and optimization of the structure of future energy systems, intelligent methods for their operation, and innovative IT solutions for future energy automation systems.

Energy systems are critical infrastructure and their automation and control system are more and more targeted by cyber-attacks. One answer is to try to prevent those attacks from being successful via cyber security measures. Another is to assume that from time to time a certain number of devices will be infected and to minimize the possible effects this could have. This approach of improving the resilience of power control systems is the topic of the open position. The position will work on developing algorithms and analyzing them in conjunction with the underlying physics in various projects and in cooperation with the German national cyber security center Athene in Darmstadt.

Publications in international top venues are desired. Support of teaching and other lab duties is expected.

Requirements:

- Very good Master's degree in an engineering, mathematics, computer, or natural sciences field
- Excellent analytical and mathematical skills
- Good knowledge of control theory strongly preferred
- Advanced programming experience
- Interest in the topic of resilience
- Experience and interest in the development of embedded systems demonstrators is desired
- Very good English is a must, German a benefit
- Independent work attitude, initiative and being a team player

Opportunity for further qualification (doctoral dissertation) is given. The fulfillment of the duties likewise enables the scientific qualifications of the candidate.

The Technische Universität Darmstadt intends to increase the number of female employees and encourages female candidates to apply. In case of equal qualifications applicants with a degree of disability of at least 50 or equal will be given preference. Wages and salaries are according to the collective agreements on salary scales, which apply to the Technische Universität Darmstadt (TV-TU Darmstadt). Part-time employment is generally possible.

Please send your application including a motivation letter, CV, copies of academic transcripts, and the names and contact information of one to three references via e-mail with reference to the code number to: office@eins.tu-darmstadt.de

Code No. 396

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