

Postdoc/Research Assistant in intelligent distribution grids, Chalmers University of Technology, Sweden.

At the department of Electrical Engineering research and education are performed in the areas of Communication and Antenna systems, Systems and Control, Computer vision, Signal processing and Biomedical engineering, and Electric Power Engineering. Our knowledge is of use everywhere where there is advanced technology with integrated electronics. We work with challenges for a sustainable future in society of today, for example in the growing demands concerning efficient systems for communications and electrifying.

We offer a dynamic and international work environment with about 200 employees from more than 20 countries, and with extensive national and international research collaborations with academia, industry and society.

The department provides about 100 courses, of which most are included in the Master's Programs "Biomedical Engineering", "Electric Power Engineering", "Systems, Control and Mechatronics" and "Communication Engineering".

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Information about the research

The Division of Electric Power Engineering conducts research within a broad range of topics in electric power technology. Our purpose is to develop interdisciplinary research areas within the university as well as with external partners. Research activities at the division can be organised in four main areas: electric power systems, power electronics, electric machines and high voltage engineering. The strength of our research is based on a solid theoretical basis and extensive experimental verification in our laboratories as well as in the field. Our goals are to enhance the knowledge base regarding electrical systems for renewables, vehicles, buildings and industrial applications. The division has recently been involved in a number of research projects in the area of smart energy buildings and microgrids, transmission system monitoring and protection, etc., funded by EU, state funding as well as by Swedish power industry.

Major responsibilities

This position will support research activities in on-going projects in the area of intelligent distribution grids and interactions of microgrids in distribution grids. The projects aim to secure and optimise the operation of the future intelligent distribution networks with high penetration of renewable generation, energy storage, and demand-response resources. One of the main responsibilities of the position is to support with the hardware-software integration tasks for the demonstrations of projects' solutions at the demo-sites at Chalmers campus and at nearby facilities. The position will also support with development of advanced solutions to maximize the hosting capacity of distribution systems for distributed energy resources by optimizing grid utilization, controls and protections.

The position will work in close collaboration with international project partners within the consortium of the projects. The position also includes departmental work (e.g., teaching) up to 20%, apart from the research tasks.

Position summary

The position is full-time one year with possibility to extend to another year subject to available funding.

Qualifications

The applicant must have a MSc degree (for the Research Assistant position) with three to five years of work experience in R&D projects (preferably in industrial environment), or a PhD degree (for the Postdoc position) in electrical engineering, computer science or related fields. The successful applicant is expected to have i) knowledge and experience in distribution system analysis, control and optimization; AND ii) hands-on experience on hardware-software interface/integration development using standardised communication protocols in real platforms and environments. Applicants are also expected to have an excellent skill in both written and spoken English. The knowledge of Swedish is an advantage..

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Application procedure

The application should be marked with Ref 20180467 and written in English. The application should be sent electronically and be attached as pdf-files, as below:

CV: (Please name the document as: CV, Surname, Ref. number) including:

- CV, include complete list of publications.
- Previous experiences in research projects and in hardware-software interface/integration development.
- Two references that we can contact.

Personal letter: (Please name the document as: Personal letter, Family name, Ref. number) including:

- 1-3 pages where you introduce yourself and present your qualifications.
- Previous research fields and main research results, and/or relevant work experience.

- Future goals and research focus. Are there any specific projects and research issues you are primarily interested in?

Other documents:

- Attested copies of completed education, grades and other certificates.

Please use the button at the foot of the page to reach the application form. The files may be compressed (zipped).

Application deadline: 30 September, 2018

For questions, please contact:

Dr. Tuan Le, Senior Lecturer, project leader and supervisor

E-mail: tuan.le@chalmers.se; Phone: +46 31 772 3832

Dr. David Steen, Senior Reseacher, project supervisor

E-mail: david.steen@chalmers.se; Phone: +46 31 7721663