



AALBORG UNIVERSITY
DENMARK

Communication networks for MicroGrids

Within the programme Science without Borders, Aalborg University is offering a Postdoc position/guest researcher at the Department of Energy Technology, Micro Grid Lab.

The approach will investigate the application of IEC 62850 for the coordinated control of the microgrid between the individual units and the SCADA system. The research will be focused on Home Area Networks (HAN) power line communications and Zigbee, and Local Area Networks (LAN) following ANSI C12.22. New GPS-based synchronization systems (NTP and PTP, Standard IEEE 1588) will be studied for large-medium area Microgrids.

Project

Analysis and specification of the communication requirements for control, management, and advanced metering infrastructure (AMI) in terms of: topology, acceptable delay statistics, link availability, and data rates. Investigation of communication architecture that fits the requirements. Mapping of the architecture/requirements to the existing wireless systems, with suitable redesign of the communication protocols. Performance evaluation.

Requirements

- Master degree
- PhD degree on Electrical/Electronic Engineering or similar with Communications knowledge
- English language

Duration

12 months - with the possibility for prolongation up to 24 months.

Contact person

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[To apply](#)