



AALBORG UNIVERSITY
DENMARK

PhD Position within Energy Management Systems (EMS) for Multiple MicroGrid Clusters

Within the programme Science without Borders, Aalborg University is offering a PhD position at the Department of Energy Technology, Pontoppidanstræde 101, DK-9220 Aalborg East.

The position is administrated by “Science without borders” and financed by stipends through CAPES. The overall theme is “Renewable Energy”. Acceptance of employment is on condition of the grant from CAPES.

Description: The Thesis will study the coordination between agents in order to negotiate the power flow between microgrids or between a microgrid cluster and the grid. The Thesis will include online optimization, related to the development of an Energy Management System (EMS) and offline multiobjective optimization techniques such as Mixed Integer Nonlinear Programming (MINLP). An OLE for process control (OPC) based server network will be investigated for multiple microgrid clusters.

Develop new EMS for MicroGrids, by using communication technologies and standards. Online and offline EMS systems will be developed through centralized/decentralized control strategies will be implemented together with advanced metering infrastructure (AMI) devices and smart-meters.

Requirements

Master on Computer Science, Communications, or Energy Engineering

Language English

Contact person: Professor Josep M. Guerrero, e-mail: joz@et.aau.dk

To apply please see the link below:

<http://www.en.tek-nat.aau.dk/vacant+positions/Science+without+Borders/>