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Postdoctoral Research Fellowship

Network planning and operation within the context of increased uptake of distributed energy resources

Scope of Research: The research relates to ongoing work within the Power System Studies research group in the Electrical & Electronic Engineering department at Stellenbosch University, in close collaboration with the Centre for Renewable and Sustainable Energy Studies and the EPPEI Specialisation Centre for Renewable Energy.

The research group's focus areas include understanding sources of variability in the power system, characterisation of variability and understanding its impacts, and applications to support power system planning and operations.

The postdoctoral candidate will specifically focus on research related to network planning and operation within the context of increased uptake of distributed energy resources using stochastic-probabilistic load-flow approaches. The candidate will be expected to publish the results of the research at local and international conferences, and in high-impact factor journals. Limited mentoring and supervision of post-graduate students within the Power System Studies research group will also be required.

The fellowship is available for one year, renewable for a second year subject to satisfactory performance and availability of funding.

Host: Dr Bernard Bekker, Eskom Chair in Power System Simulation, Centre for Renewable and Sustainable Energy Studies, Engineering Faculty, Stellenbosch University

Requirements:

- PhD (must have graduated within the last five years)
- Excellent communication skills in English (both written and verbal)
- Experience in the application of the Herman-Beta extended approach, as well as a general understanding of stochastic-probabilistic planning frameworks
- Familiarity with DigSilent Powerfactory, Plexos or other network / power system simulation packages
- MATLAB programming experience
- Understanding of South African grid codes, regulations and policies will be beneficial

Please note that postdoctoral fellows are not appointed as employees and their fellowships are awarded tax free. They are therefore not eligible for employee benefits.

Commencement of duties: 1 March 2020

Closing date: 23 February 2020

Application process: Send a letter of application, accompanied by a comprehensive curriculum vitae, including list of publications, link to the candidate's PhD thesis, and the names and contact details of two referees, to Dr Bernard Bekker, bbekker@sun.ac.za