

1yr Postdoctoral Opportunity "Wind Resource variability in West Africa"

IGE is seeking applications for a postdoctoral position focused on statistical analysis of observed and simulated data for the characterization of Wind Resource variability in West Africa.

Universal access to electricity by 2030 is one of the key goals of the UN Sustainable Energy for All (SE4All) initiative. To meet this major challenge while fulfilling the objectives of the Paris Agreement on Climate Protection, Variable Renewable Energies (wind, solar, hydro) will have an increasingly important role for a number of countries worldwide. Their high space/time variability make however the electricity power system rather vulnerable to the hydroclimatic variability and hydrometeorological extreme events.

The main component of the intended research will be to characterize the multiscale variability and reliability of wind power resources in West African countries, where a massive development of renewable is expected for the next years. We will consider different spatial scales from local, relevant for off-grid power systems, to regional, relevant for regional power systems based on transnational transportation grids. The variability of the resource will be also analyzed in regards to the weather driven variability of the electricity demand. Data to be used are wind pseudo-observations from global reanalyses (MERRA hourly data) and Regional Climate Models (forced by ERA-INT reanalyses) used within the CORDEX-Africa project.

Applicants with experience in multidisciplinary research settings and a PhD degree obtained during the 2013–2017 period in climate or atmospheric sciences, applied statistics, hydrometeorology, environmental science, or an engineering field, with significant interests in statistical analysis and climate modelling, will make an ideal fit for this position. The applicant should be fluent in French or English. The work will imply interactions with African partners from the "Climate Modelling Center" of University Houphouet Boigny in Abidjan (Ivory Coast).

Considerable experience and in-depth knowledge of MatLab, R, Geo-Spatial analysis tools, and programming languages such as Fortran, Python, and/or C and familiarity with UNIX environment and scripting will definitely be invaluable assets. The successful candidate is expected to publish research findings in high impact journals.

The appointment will be for a period of one year from the date of appointment, with a possibility of extension for two additional years depending on performance and availability of funds. The net salary will be around 2000 euros/month (according experience) before income tax. Expected starting date is Sept.2017.

Please email your CV, a letter of introduction explaining your motivation and suitability for the position, and names and contact information of at least three professional references to benoit.hingray@univ-grenoble-alpes.fr and arona.diedhiou@ird.fr. Examples of papers as first author either in press or published can also be submitted. Applications will be reviewed as soon as received and the position will remain open until filled.