

Engineering & Science – Wind Power

Geotechnical Engineer (Numerical Modelling Specialist)

Country: UK, Denmark

Working hours: Full-time

Application deadline: 29.11.2019

Workplace: Gentofte, Skærbæk near Fredericia or London

Apply

Do you want to join the team responsible for pushing the boundaries of geotechnical design for offshore wind turbine foundations?

Join us and become a Geotechnical Engineer in the Geotechnical Engineering department where you'll take on a key role in the development and integration of numerical modelling in our design processes. You'll be part of a large and diverse team of more than 40 Geotechnical Engineers from 17 different countries.

Your key tasks will be to

- lead the development of the numerical modelling strategy and help develop competences within the Geotechnical Engineering department in relation to advanced geotechnical foundation design
- develop and maintain technical specifications and documentation of the geotechnical numerical tools in the department
- develop in-house design tools capable of solving complex geotechnical problems related to detailed foundation design of offshore structures (e.g. monopiles, jacket piles, suction buckets, and gravity-based structures)
- use purpose-built or commercially available numerical modelling software for analysis of complex soil-structure interaction problems
- prepare detailed geotechnical reports and memoranda with the aim of having geotechnical parameters and design methods approved by a Certification Body
- closely collaborate with people from different engineering disciplines within the Foundations group, e.g. structural, loads and installation departments, with the goal of executing state-of-the-art foundation design and collaboratively developing new foundation solutions.

As part of the role, you'll be the geotechnical numerical expert on an array of projects related to offshore geotechnical engineering, focusing on large offshore wind farm developments, R&D projects (in collaboration with both internal and external parties) and in-house software development. You'll take ownership of the geotechnical numerical development along with several complex tasks and will be expected to engage in technical discussions and challenge the status quo.

Your competences include that you

- have a thorough understanding of different numerical modelling methods with emphasis on the fundamentals of the Finite Element theory and its applicability in geotechnical engineering, including nonlinear FE analysis
- have in-depth knowledge of soil mechanics and appreciation of advanced constitutive models (i.e. advantages, limitations and interpretation of laboratory tests to derive relevant material model inputs) and their area of applicability
- have experience with programming software packages, e.g. MATLAB, PYTHON, etc.
- have substantial experience within the field of geotechnical engineering, preferably offshore
- hold an MSc or PhD degree in civil/geotechnical engineering, with proven background in soil/rock mechanics and/or foundation engineering
- possess good interpersonal and communication skills and speak and write English fluently.

Moreover, you have a positive, open-minded and result-oriented approach to your work and a personal drive to proactively suggest improvements within your area of responsibility. Additionally, you're able to work independently but also thrive on working closely together with your colleagues and business partners in a multicultural international environment. Previous experience with implementation and validation of constitutive models as well as with modelling dynamic or seismic loading is desirable.

Working at Ørsted

Our vision is to create a world that runs entirely on green energy. This ambitious goal relies on maximising the talents of a truly inclusive workforce that brings diversity of thought, perspective, knowledge and background to our business.

To be the frontrunner in the green energy transformation, we invest significantly in innovation and empower our employees to help shape the renewable energy technologies of the future. We cultivate a collaborative, dynamic and diverse work environment and encourage career-long learning and development so our people can realise their full potential.

Would you like to help shape the renewable technologies of the future?

Send your application to us as soon as possible and no later than 29 November 2019,

as we'll be conducting interviews on a continuous basis.

Please don't hesitate to contact Miguel Pacheco Andrade, Manager of Geotechnical Design & Installation by email at migpa@orsted.co.uk, if you'd like to know more about the position.

All UK-based positions will be subject to satisfactory pre-employment screening, further details will be given at offer stage.

If based in the UK, you should expect to travel overseas approximately once every month in relation to your work. However, we pride ourselves on having a strong family and life-friendly ethos and approach to our ways of working. As part of our commitment to a more diverse and inclusive workforce, we're flexible on making reasonable adjustments to working practices, within the constraints of the role's principal accountabilities.

We're committed to equal opportunities at every stage of the employee journey and this starts with recruitment. Should you need any reasonable adjustments to be made during the recruitment process, please let us know when you're invited for interview.

Criminal record certificate

Please note that for Danish applicants, we may request a criminal record certificate in connection with this job, and that employment will be subject to the information listed. The criminal record certificate will only be used in the assessment if the criminal activity is of relevance to the position.

About Ørsted

Headquartered in Denmark, Ørsted's 6,300 employees develop, construct and operate offshore and onshore wind farms, bioenergy plants and provide energy products to its customers. Ørsted Offshore's 2,300 employees have developed and constructed the largest portfolio of offshore wind farms in Northern Europe, and we're expanding with international activities in the US and Asia-Pacific. For more information on Ørsted, visit orsted.com.

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Our five guiding principles:

Meet our employees

We're committed to being a work place that supports a sustainable work life, while providing real purpose, job satisfaction and physical and mental well-being.

Meet our employees