

Supervisors Imperial College London: Dr Livia Cupertino-Malheiros (Main Supervisor)
Dr Ken Vinck (Co-Supervisor)
Prof Richard Jardine (Co-Supervisor, Co-PI)
Prof Anna Korre (PI)

Applications are open for a PhD scholarship funded by Horizon MSCA and Iberdrola's *Energy for Future Research Programme*, within the project "Reducing Offshore Wind Energy Costs by Unravelling the Role of Corrosion in Enhancing Driven Pile Shaft Capacity". The PhD student will assist the development of the first lab ageing test cell for the acquisition and analysis of data key for generating fundamental knowledge of corrosion-mechanical interactions in steel/ground systems. The PhD student will apply these data to deliver model predictions for various soil types, identifying the regions where corrosion can result in shaft capacity gain, the underlying mechanisms, and the expected changes in soil mechanical properties.

The PhD student will conduct research in the Materials and Geotechnics Sections of the Department of Civil and Environmental Engineering of Imperial College London. This position offers a world-class range of training and development opportunities in a highly stimulating environment, as well as access to internationally leading academics and industrial partners, research facilities, and networks.

Requirements:

- A first-class degree (or international equivalent) in civil engineering, mechanical engineering, materials science, or closely related disciplines.
- A master's level degree qualification, preferably with a focus on geotechnics or corrosion.
- Excellent English writing and communication skills.

In addition, a competitive candidate should demonstrate the following desirable (non-essential) qualifications:

- Laboratory experience in corrosion or soil testing
- Related research experience that has led to high-quality outputs (e.g., publications)

How to apply:

Applicants wishing to be considered for this opportunity should send the following documents to Dr Livia Cupertino Malheiros (l.cupertino-malheiros@imperial.ac.uk) by **15 April 2024**.

- CV, including average grades and research experience (if any)
- Cover letter, explaining their motivation and suitability
- Contact details of two academic referees

Application via the Imperial College Registry is not necessary at this stage.

The expected start date of this PhD project is 1 October 2024.

About the Funding:

The studentship will provide funding for up to 3.5 years, including tuition fees (3 years) and a tax-free stipend at the standard UKRI London rate for 3.5 years. Full funding is available to Home and Overseas students.

For further details, informal discussions and information about the project please contact Dr Livia Cupertino Malheiros at l.cupertino-malheiros@imperial.ac.uk