Conception of floaters and mooring lines system for offshore power hubs
Universidade de São Paulo

Job Title	Conception of floaters and mooring lines system for offshore power hubs
Department	Departamento de Engenharia Naval https://ppgen.poli.usp.br/
Institution	Universidade de São Paulo São Paulo, , Brazil
Date Posted	Apr. 11, 2025
Application Deadline	May 30, 2025
Position Start Date	Available immediately
Job Categories	Post-Doc
Academic Field(s)	Naval Architecture & Marine Engineering
Job Website	https://www.linkedin.com/company/otic-offshore-technology-innovation-center/
Apply By Email	otic.jobs@usp.br

Job Description

This research aims to develop a floating unit capable of supporting a hybrid power hub for deployment in deep-water fields. The study combines low-order models with time-domain simulations to define the main dimensions of the hull and the layout of the mooring system, with the goal of reducing CAPEX while ensuring compliance with applicable safety regulations.

Sizing the hull and mooring system of an offshore structure depends on several parameters, including the equipment to be installed onboard, the environmental conditions, and the safety criteria that must be met. Moreover, these objectives must be achieved while minimizing total CAPEX to ensure the project's economic feasibility. A common approach involves the use of reduced-order models and frequency-domain analysis to develop a preliminary platform concept, followed by time-domain

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simulations to verify system responses and assess compliance with applicable design criteria.

PhD in Engineering or Physics. Applicants should preferably have experience in hydrodynamic modeling of floating offshore units under the action of wind, waves, and currents. Experience with statistical analysis and mooring system design will be considered an advantage.

Contact Information

Please reference Academickeys in your cover letter when applying for or inquiring about this job announcement.

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