

PhD position in computational mechanics, FSI, and marine energy structures at Stony Brook University

A fully supported PhD position in computational mechanics and fluid-structure interaction (FSI) is available in the Department of Civil Engineering at Stony Brook University. The position is part of a collaborative project led by Drs. Rigoberto Burgueño, Paolo Celli, and George Moutsanidis. The successful applicant will work within an interdisciplinary research team focusing on the design of innovative structures for marine hydrokinetic energy devices, and will concentrate on the development and application of advanced numerical techniques to support these efforts. The desired start date is Fall 2024.

Minimum Qualifications:

- MS degree in Engineering, Applied Mathematics, or related field
- Solid academic background in the theory and application of the finite element method (FEM), scientific computing and numerical analysis
- Excellent coding skills
- Exceptional analytical and problem-solving skills
- Strong communication and teamwork capabilities

Preferred Qualifications:

- Experience with open-source packages such as FeniCS or deal.II
- Experience with FEM-based computational fluid dynamics and fluid-structure interaction

The interested applicants are encouraged to communicate their interest to Drs. Celli and Moutsanidis by sending an email to both (paolo.celli@stonybrook.edu, georgios.moutsanidis@stonybrook.edu) and by submitting the following material:

- Graduate and undergraduate transcripts
- CV
- Any relevant publications
- Contact information of at least 3 faculty members that can provide letters of recommendation
- Results of GRE and TOEFL if available