



Postdoc Position Available at Prof. Lei Zuo's Lab on Control Co-Design of Marine Energy Conversion

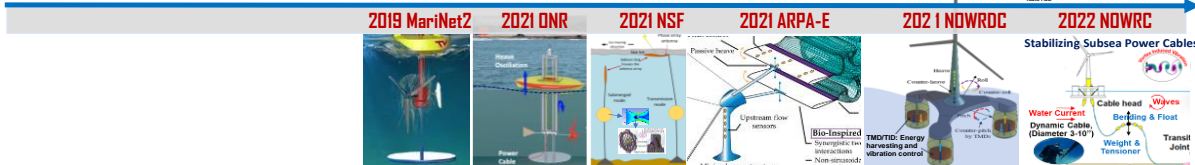
• Wave Energy Conversion: Towards Research Convergence



• Powering the Blue Economy



• Extend to Marine Current and Offshore Wind



Position Summary:

The oceans contain vast but untapped renewable energy and hold great potential for climate change mitigation. This includes the ocean waves, currents, and offshore wind. The power density of ocean waves is over 10 times as the solar. However, there is no research convergence for marine energy yet. I welcome postdocs to join in us to make the breakthroughs in this field of marine energy in the United Nations' "Decade of Ocean Science for Sustainable Development"

One positive is on control co-design. This position requires a Ph.D. degree in Mechanical Engineering, Electrical Engineering, Ocean Engineering or a related field with experience on control systems. Knowledge and hands-on-experience of multi-physics modelling, optimal control, model predictive control, plant and control co-design, stochastic optimization and nonlinear programming are desired. Expertise of electrical machines and power electronics is a plus. As part of this position, the candidate will be expected to contribute significantly to ongoing and potential future related projects, including ocean wave energy conversion, ocean tidal and current energy conversion, offshore wind energy, and regenerative vibration control. Two years of commitment is ideal, and longer term is possible.

Roles and Responsibilities:

1. Conduct research on topics across control co-design of marine energy conversion, including both theoretical and application work.
2. Significantly contribute on multiple concurrent projects through hardware design, data collection, analysis, modelling, simulation, implementation and demonstration.
3. Manage project activities and staff, including mentorship of doctoral, master's, and undergraduate students.
4. Develop new research programs and other professional duties in a timely manner.
5. Collaborate with faculty, researchers, staff and students in the project team and from external organizations for research deliverables;

How to Apply:

Candidates with required knowledges and experiences can send a **cover letter** and the **resume** with contacts of three **references** to Prof. Lei Zuo

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