

PhD Studentship Opportunities: Graphite Innovation & Technologies

As Canada's leading graphene protective coatings company, GIT is focused on using graphene to deliver solutions for a wide range of applications, including marine transportation. GIT's smart coatings technologies aim to tackle and solve complex issues by being part of the solution, with the end goal of solving the environmental crisis and saving money for the shipping industry.



The project consists of a comparative assessment between the new environmentally friendly coatings that will be developed by GIT and a benchmark marine coating – such as anti-fouling biocide-based, copolymer auto polishing, or foul release marine coatings. Graphene-based coatings have demonstrated potential to be a suitable eco-friendly alternative to protect ship hulls against corrosion and biofouling.

We aim to demonstrate the effectiveness of graphene-based coatings to reduce marine industry emissions and minimizing harm to marine life.

OGEN and the Ocean Frontier Institute in partnership with GIT and Mitacs are pleased to announce three PhD opportunities



1. Designing new marine coatings based on understanding the interplay between biofouling and corrosion: electrochemistry as a complementary tool for fundamental understandings of irreversible damage to engineered surfaces
Dr. Heather Buckley, Departments of Civil Engineering and Chemistry, University of Victoria, Victoria, BC
<https://oceangraduate.com/designing-new-marine-coatings-based-on-understanding-the-interplay-between-biofouling-and-corrosions/>
2. Marine vessel drag reduction with smart coatings
Dr. Xili Duan, Department of Mechanical Engineering, Memorial University of Newfoundland, St. John's, NL
<https://oceangraduate.com/marine-vessel-drag-reduction-with-smart-coatings/>
3. Development and Characterization of novel, hard foul-release coatings for environmentally-benign marine transportation applications
Dr. Kevin Plucknett, Department of Mechanical Engineering, Dalhousie University, Halifax, NS
<https://oceangraduate.com/development-and-characterization-of-novel-hard-foul-release-coatings-for-environmentally-benign-marine-transportation-applications/>

How to apply: Email your curriculum vitae and a cover letter outlining how your background demonstrates excellence and fits with the position, interest and any other relevant details to OGEN@oceanfi.ca by August 15. Applications received after this date may be considered. The successful candidate must meet the admission requirements and apply to the project's home department and university.