

Engineering Graduation Project in HV/MV Protection

Department, Renewables Division, Copenhagen

Deadline:
01-12-2026

Contact data:
Søren Borre Kreipke

Location:
DK - Copenhagen

Are you approaching the end of your studies and looking for a graduation project early 2027. Does deep dive into the protection of the primary equipment enabling transport of wind energy to shore excite you? Then we have the project for you.

The projects

Protection study

Today we apply state of the art, cutting edge protections of the primary equipment, 220/66kV transformers, shunt reactors, subsea cables etc. Functions like line differential protection, restricted earth fault protection, distance protection with fiber optic accelerations schemes and different mechanical protections.

But how well do the different protections cover the primary equipment?

Are all protections feasible, considering how often we statistically experience faults?

Grounding

Today the MV grid, connecting the wind turbines to the Offshore Sub Station is impedance grounded. This creates different problems and side effects that needs to be considered during engineering. Some primary equipment becomes expensive and hard to procure. Protection against earth faults becomes challenging because of the reduced fault current.

Investigate the benefits and disadvantages of isolated, impedance and effectively grounded MV grid.

How will the protections need to be set up?

What will the implications be on primary equipment, transformers, cables, wind turbines etc.

Your Profile & Qualifications

We image that you are studying to become an Electrical Engineer. As a person you are ambitious and result oriented. You have an analytical mindset and strive to find solutions for complex problems and at the same time you enjoy collaborating within a team.

Furthermore, you have a strong interest in learning and taking on challenges.

To succeed in this position, we expect that you have the following qualifications:

- Interest in electrical systems.
- Focus on digitalization and innovation.
- Can communicate in English, both written and verbal.
- Flexible, committed, loyal and dedicated.
- Great communication skills.

Welcome to Semco Maritime

At Semco Maritime, we create change. For people. For projects. And for the global energy sector. With us, you will join a community of over 2,300 of the most dedicated thinkers and doers in the energy industry who are driving real change and making their own personal mark on the global energy landscape.

While everyone knows why the energy transition is vital, we are concerned with the journey. How to get there. By providing the answers needed to make change real.

Because we believe that global energy ambitions can only be realized through hard work and clever pragmatic solutions. This is what we do. This is what we invite you to participate in.

Safety is at the core of everything we do, and we are committed to protecting our people, partners, and the planet as we work towards a sustainable energy future.

So yes, working for us will change the energy sector – and may well change you too. We know that our people are our greatest strength. We strive to build an inclusive workplace where everyone can be themselves, contribute their perspectives, and feel part of the team. We welcome applicants from all backgrounds and believe that diverse teams help us find better solutions and move the energy transition forward. Care to join the movement?

Change. With us.

We conduct our interviews on an ongoing basis, so if you are interested, you must submit your application as soon as possible.

If you have any questions, you are welcome to contact Søren Borre Kreipke, Manager, HV Protection & Secondary at SOBK@semcomaritime.com