

**The Department of Marine Technology has a vacancy for**

## **two PhD candidates within developing the low-emission ships of the future - as part of SFI Smart Maritime**

### **This is NTNU**

At NTNU, creating knowledge for a better world is the vision that unites our 7 400 employees and 42 000 students.

We are looking for dedicated employees to join us.

You will find more information about working at NTNU and the application process [here](#).

Video: <https://www.youtube.com/watch?v=clgKd1SwGLI>

### **About the position**

We have a vacancy for two three-year PhD positions as part of the SFI Smart Maritime <http://www.smartmaritime.no/>

The main goal of the SFI Smart Maritime is oriented towards the greening of the maritime transport by developing new knowledge, methods and technologies as well as educating new professionals for maritime sector, thus enabling the Norwegian maritime cluster to maintain and further develop its position as world leading in environmentally friendly shipping.

Achieving this requires both innovative use, improvement and combination of technologies that are not only energy and emission efficient, but also cost effective, thus supporting a strong competitive position for the Norwegian maritime industry.

You will report to your Supervising Professor.

### **Duties of the position**

SFI Smart Maritime is divided into five work packages:

1. Feasibility studies
2. Hull and propeller optimization
3. Power systems and fuel
4. Ship system integration and validation
5. Environmental and economic due diligence

Detailed information about each work package is found on <http://www.smartmaritime.no/>. The current positions shall be within the topics of work packages 2, 3, or 4. The potential candidates are invited to state their interest in any of these three work packages.

### **Required selection criteria**

- \* The PhD-position's main objective is to qualify for work in research positions. The qualification requirement is that you have completed a master's degree or second degree (equivalent to 120 credits) with a strong academic background in [subject area] or equivalent education with a grade of B or better in terms of [NTNU's grading scale](#). If you do not have letter grades from previous studies, you must have an equally good academic foundation. If you are unable to meet these criteria you may be considered only if you can document that you are particularly suitable for education leading to a PhD degree.

The appointment is to be made in accordance with the regulations in force concerning [State Employees and Civil Servants and national guidelines for appointment as PhD, post doctor and research assistant](#).

- Good written and oral English language skills. Applicants from non-English speak countries outside Europe must present an official language test report. The acceptable tests are TOEFL, IELTS, and Cambridge Certificate in Advanced English (CAE) or Cambridge Certificate of Proficiency in English (CPE). Minimum scores are:
  - TOEFL: 600 (paper-based test), 92 (Internet-based test)
  - IELTS: 6.5, with no section lower than 5.5 (only Academic IELTS test accepted)
  - CAE/CPE: grade B or A

### **Preferred selection criteria**

- Experience and/or interest in experimental work and numerical analysis is beneficial for work packages 2 and 3, while for work package 4, systems analysis competence is preferred.

## Personal characteristics

- Strong analytical skills
- Ability and motivation to work as part of a cross-disciplinary research team
- Self-driven
- Innovative

In the evaluation of which candidate is best qualified, emphasis will be placed on education, experience and personal suitability, as well as motivation.

## We offer

- exciting and stimulating tasks in a strong international academic environment
- an open and [inclusive work environment](#) with dedicated colleagues
- favourable terms in the [Norwegian Public Service Pension Fund](#)
- [employee benefits](#)

## Salary and conditions

PhD candidates are remunerated in code 1017, and are normally remunerated at gross from NOK 479 600 per annum before tax, depending on qualifications and seniority. From the salary, 2% is deducted as a contribution to the Norwegian Public Service Pension Fund.

The period of employment is 3 years, without teaching duties.

Appointment to a PhD position requires that you are admitted to the PhD programme at the Faculty of Engineering within three months of employment, and that you participate in an organized PhD programme during the employment period.

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The engagement is to be made in accordance with the regulations in force concerning State Employees and Civil Servants, and the acts relating to Control of the Export of Strategic Goods, Services and Technology. Candidates who by assessment of the application and attachment are seen to conflict with the criteria in the latter law will be prohibited from recruitment to NTNU. After the appointment you must assume that there may be changes in the area of work.

It is a prerequisite you can be present at and accessible to the institution on a daily basis.

## About the application

The application and supporting documentation to be used as the basis for the assessment must be in English or Norwegian languages.

Publications and other scientific work that you would like to be considered must follow the application. Please note that applications are only evaluated based on the information available on the application deadline. You should ensure that your application shows clearly how your skills and experience meet the criteria which are set out above.

- The application must include:
- CV, certificates and diplomas
- Research plan or project proposal
- Academic works - published or unpublished - that you would like to be considered in the assessment (up to 5 works)
- Name and address of three referees

Joint works will be considered. If it is difficult to identify your contribution to joint works, you must attach a brief description of your participation.

In the evaluation of which candidate is best qualified, emphasis will be placed on education, experience and personal suitability.

NTNU is committed to following evaluation criteria for research quality according to [The San Francisco Declaration on Research Assessment - DORA](#).

## General information

[Working at NTNU](#)

A good work environment is characterized by diversity. We encourage qualified candidates to apply, regardless of their gender, functional capacity or cultural background.

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**The city of Trondheim** is a modern European city with a rich cultural scene. Trondheim is the innovation capital of Norway with a population of 200,000. The Norwegian welfare state, including healthcare, schools, kindergartens and overall equality, is probably the best of its kind in the world. Professional subsidized day-care for children is easily available. Furthermore, Trondheim offers great opportunities for education (including international schools) and possibilities to enjoy nature, culture and family life and has low crime rates and clean air quality.

As an employee at NTNU, you must at all times adhere to the changes that the development in the subject entails and the organizational changes that are adopted.

Information Act (Offentleglova), your name, age, position and municipality may be made public even if you have requested not to have your name entered on the list of applicants.

If you have any questions about the positions, please contact Professor Stein Ove Erikstad, telephone +47 932 01 255, email [stein.ove.erikstad@ntnu.no](mailto:stein.ove.erikstad@ntnu.no). If you have any questions about the recruitment process, please contact Marit Gjersvold, e-mail: [marit.gjersvold@ntnu.no](mailto:marit.gjersvold@ntnu.no)

Please submit your application electronically via [jobbnorge.no](http://jobbnorge.no) with your CV, diplomas and certificates. Applications submitted elsewhere will not be considered. Diploma Supplement is required to attach for European Master Diplomas outside Norway. Chinese applicants are required to provide confirmation of Master Diploma from [China Credentials Verification \(CHSI\)](#).

If you are invited for interview you must include certified copies of transcripts and reference letters. Please refer to the application number IV-143/20 when applying.

**Application deadline: 30.06.20**

## NTNU - knowledge for a better world

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The Norwegian University of Science and Technology (NTNU) creates knowledge for a better world and solutions that can change everyday life.

### Department of Marine Technology

We develop methods and technology related to the blue economy: oil and gas extraction at sea, ship technology and the equipment industry, fisheries and aquaculture. We also have a strong commitment to the development of sustainable solutions for offshore renewable energy, coastal infrastructure, and marine robotics. Marine technology helps to solve major global challenges related to the environment, climate, energy, food and efficient transport. [The Department of Marine Technology](#) is one of eight departments in [the Faculty of Engineering](#).

Jobbnorge ID: 188846, Deadline: 30.06.2020, Customer reference: 2020/15683