

Jobbnorge ID: 197786
Deadline: 1/31/2021
Website: <http://www.ntnu.no>
Scope: Fulltime
Duration: Temporary

At the Department of Information Security and Communication Technology we have a vacancy for a

PhD position in Cybersecurity Models and Mechanisms for Remote Medical and Care Services.

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=cJgKd1SwGLI>

About the position

At the Department of Information Security and Communication Technology we have a vacancy for a PhD candidate in Cybersecurity Models and Mechanisms for Remote Medical and Care Services.

The position's working place is NTNU campus in Gjøvik. You will report to the Head of the Department.

Duties of the position

The PhD candidate will work on challenging research problems related to modelling the complex cybersecurity context when the hospital-centralized healthcare services are migrating towards municipality and home oriented future services. This includes research on both abstracting cybersecurity threats and defense practices into transferable models and developing efficient security controls for the remote care scenarios. Other duties include

- Collaborating closely with researchers and IT / security staffs from the inland hospital trust and inland region municipalities towards the PhD research objectives
- Collaborating with inter-/national and local remote healthcare service innovation teams in testing and converting the research results to practical applications and commercialization
- Contributing to NTNU CCIS-eHWS' and NORCICS' research and innovation initiatives

The position is part of SFI NORCICS, the new 8-year research-based innovation Norwegian Center for Cybersecurity in Critical Sectors. These sectors include electricity production and distribution, oil & gas production and distribution, manufacturing, healthcare, industrial production, smart districts. NORCICS follows a holistic, comprehensive and systemic approach addressing people, processes and technology to protect critical sectors throughout the cybersecurity core functions (identify, protect, detect, respond, recover). NORCICS has partners from academia, research, the public sector and the industry. For more information about NORCICS see www.ntnu.edu/norcics.

There are several PhD positions announced within the context of NORCICS. You are encouraged to apply for all positions that fit your background and interests. Integrated PhD study candidates are welcome to apply.

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 cyber and information security, computer science, network communications, 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.

- Academic background as listed above
- Excellent English language skills (written and oral)

Preferred selection criteria

- Knowledge and skills in security analysis, modelling, and enhancement from practical scenarios
- Experience with computer system, data and network security mechanisms design and development
- Experience in research and development of e-health and remote care applications
- Experience of project idea communication and collaboration with external partners
- Concrete project implementation and / or academic publication activities

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](#)

Personal characteristics

- Be scientifically curious, open and proactive to respond to new research challenges
- Demonstrate independence and persistence in addressing technical problems
- Be flexible and reliable, with ability to work effectively independently and as part of a team
- Critical thinking and challenging the status with research integrity
- Be efficient in self-management in research and project progressing

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 507 400 per annum, 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.

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

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.

The position is subject to external funding.

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

About the application

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

Publications and other scientific work 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:

- A short and directed cover letter (in English or Norwegian) identifying:
 - Your motivation for a PhD study
 - Your understanding and thoughts of topics of the position
 - Why you are suited for the position.
- CV, certificates and diplomas
- Academic works - published or unpublished - that you would like to be considered in the assessment (up to 5 works)
- Name and contacts 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.

The city of Gjøvik has a population of 30 000 and is a town known for its rich music and cultural life. The beautiful nature surrounding the city is ideal for an active outdoor life! The Norwegian welfare state, including healthcare, schools, kindergartens and overall equality, is probably the best of its kind in the world.

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.

According to 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 position, please contact **Associate Professor Bian Yang, telephone +47 61135486, email bian.yang@ntnu.no**. If you have any questions about the recruitment process, please contact **Stine Terese Ruen Nymoene, e-mail: stine.t.r.nymoene@ntnu.no**.

Please submit your application electronically via jobb norge.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.

Application deadline: 31.01.2021

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Additional information

Place of service:

NTNU Campus Gjøvik 2815 Gjøvik (Gjøvik Municipality)