

Announcement of NTNU-CSC PhD Scholarship

Type of scholarship: degree seeking PhD

Period of the scholarship: Aug.1 2021– Jul.31 2025

Short description of the scholarship: Digital twin for healthy indoor environment

People spend almost 90% of their lives indoors. The current COVID 19 pandemic requires a better understanding of indoor air quality through digital way. This PhD project aims to create the knowledge base for monitoring and predicting indoor air quality with a secure digital twin. This project will include **two Ph.d students**. One focus on the simulation twin. Another one will focus on the real time twin. The PhD students will

- 1) Develop the method for efficient and effective simulating, tracking and monitoring of indoor human mobility and indoor air quality
- 2) Develop a comprehensive indoor air quality prediction and risk analysis methodology to enable early risk warning.

The PhD students will work closely with the ongoing IKTPLUS project on E-Health and other PhD students/postdocs in the research group of the department.

The PhD project will also foster long-term research collaboration with universities within the Nordic5Tech Alliance and ongoing EU project.

Qualification and requirement:

- The PhD-position's main objective is to qualify for work in research positions. The qualification requirement is completion of a master's degree (equivalent to 120 credits) with a strong academic background in, computer science, software engineering, or civil engineering with a grade of B or

better in terms of NTNU's grading scale.

- Preferred selection criteria
 - The candidate should have a background, and practical experience, with at least two of following fields:
 - ◆ Time series data analysis
 - ◆ Image processing
 - ◆ Building information modelling
 - ◆ Indoor positioning
 - ◆ Computational fluid dynamics (CFD)
 - Team worker within cross discipline studies

In addition, for all applicants the following applies:

- Fluent English language, both written and spoken with certificates of TOEFL minimum 95 or IELTS minimum 6.5
- Chinese citizenship documents (copy of his/her passport or national ID of P.R. China)
- CV
- A motivation letter

Deadline for submission of application: 15th Feb 2021

Scholarship: 17000 NOK/month for a period of up to 48 months

According to the NTNU-CSC agreement

CSC will provide a living stipend, currently 12,500 NOK per month for a period of up to forty-eight (48) months, and a round-trip international airfare between China and Norway. NTNU will provide a monthly additional funding for a period of up to forty-

eight (48) months, which combined with the CSC living stipend ensures the sufficient income (currently minimum 17,000 NOK per month) required by NTNU. No tuition fees will be charged for PhD candidates at NTNU.

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