

**Jobbnorge ID:** 260632  
**Deadline:** 5/19/2024  
**Website:** <http://www.ntnu.no>  
**Scope:** Fulltime  
**Duration:** Permanent

We are looking for a

## Professor or Associate Professor in Artificial Intelligence in Materials or Mechanical Engineering

### This is NTNU

NTNU is a broad-based university with a technical-scientific profile and a focus on professional education. The university is located in three cities with headquarters in Trondheim.

At NTNU, 9,000 employees and 44,000 students work to create knowledge for a better world.

Video: <https://youtu.be/Xt-yHCN5QS0>

### About the position

Are you an expert in Artificial Intelligence and Materials Science and Engineering or Mechanical Engineering? Do you know how to find new solutions by expanding traditional engineering approaches using artificial intelligence? Are you able to develop your research independently and together with your colleagues? Then you could be the one we are looking for!

This position is a 100% permanent position, and will be part of the Applied Materials research group. The Applied Materials research group is a multidisciplinary mixture of engineers, physicists, and chemists, working on a wide range of topics. Key areas are energy generation, transport and storage, tribology, light structures, shipping. Much of the focus within this area is currently on environmentally sustainable solutions. The group is internationally oriented with researchers active in many national and international research projects, groups and programs, externally financed by the EU, the Research Council of Norway and the industry.

Your immediate leader is Head of Department.

### Duties of the position

- international high level research
- initiate new research projects through active marketing and sales to the industry and the funding bodies (e.g. EU and The Norwegian Research Council)
- contributing to, fronting, and leading the development of the research area within the research group and the department
- teaching and supervision on bachelor-, master- and PhD levels in all the study programs taught in the department
- exam preparation, evaluation, and administrative tasks as required

### Required qualifications

Professor:

You must have the qualifications required for the position of Professor in the field of Artificial Intelligence in Materials or Mechanical Engineering, as outlined in § 1-2 of [the regulations concerning appointment and promotion to teaching and research posts](#)

- your scientific experience must be essentially related to both artificial intelligence and materials or mechanical engineering or physics, or equivalent subject area such as Civil engineering, naval architecture, aerospace engineering or lightweight structures
- in addition to the requirements for basic educational competence, you must also document:
  - the development of the quality of your own teaching and supervision of students over time
  - broad experience as a supervisor, preferably at a master's/PhD level
  - participation in improving the quality of education in a professional environment

Associate professor:

You must have the qualifications required for the position of Associate Professor in the field of Artificial Intelligence in Materials or Mechanical Engineering, as outlined in [the regulations concerning appointment and promotion to teaching and research posts](#)

- your PhD, or comparable academic work, must be within the field of both artificial intelligence and materials or mechanical engineering or physics

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Applicable to all:

You must have the following:

- documented knowledge and experience within applying artificial intelligence to mechanical or materials engineering problems after your PhD degree (i.e., postdoc or equivalent industrial experience)
- experience with contemporary AI programs. Here AI include deep learning and machine learning
- documented experience with materials or mechanical engineering and traditional modelling techniques
- papers published as first author or last author (PI) independently from your PhD supervisor or postdoc time
- equivalent industrial background relevant to the position will be positively considered
- excellent written and oral English language skills

You must document relevant basic competence in teaching and supervision at a university/higher education-level, as referenced in the Norwegian national [Regulations](#). If this cannot be documented, you will be required to complete an approved course in university pedagogy within two years of commencement. NTNU offers qualifying courses.

New employees who do not speak a Scandinavian language by appointment is required, within three years, to demonstrate skills in Norwegian or another Scandinavian language equivalent to level three of the [course for Norwegian for speakers of other languages at the Department of Language and Literature at NTNU](#).

## Preferred qualifications

- optimizing design, materials or monitoring solutions
- developing own AI solutions
- experimental work
- analyzing data
- applying AI to small sets of data
- knowledge of nondestructive evaluation and monitoring techniques
- experience with long-term properties of materials and performance of structures
- you should have worked in projects with industry and public funding
- you should have the ability to prepare research applications and to have succeeded in achieving grant(s) from own application(s), and manage and execute research activities
- equivalent industrial background within artificial intelligence in materials or mechanical Engineering

## Personal qualities

- self-driven, curious and willing to learn
- honest and positive
- willingness to collaborate both within the group, with other groups in the department and across NTNU
- able to work both independently and in a team
- problem solver, and willing to share results with colleagues locally and globally

## We offer

- exciting and challenging 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](#)

## Application Process

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

Video: <https://youtu.be/bwfnPj8HxHw>

## Salary and conditions

As a Professor (code 1013) you are normally paid from gross NOK 800 000 - NOK 1 000 000 per annum before tax, depending on qualifications and seniority. As required by law, 2% of this salary will be deducted and paid into the Norwegian Public Service Pension Fund.

As Associate Professor (code 1011) you are normally paid from gross NOK 600 000 - NOK 900 000 per annum before tax, depending on qualifications and seniority. As required by law, 2% of this salary will be deducted and paid into the Norwegian Public Service Pension Fund.

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.

Please note that the candidate holding the announced position is expected to work with critical infrastructure and areas affected by control of the export of strategic goods, services and technology. Candidates with the potential of not fulfilling requirement for security clearance, access clearance and authorization as described in the Act Relating to National Security, The Export Control Act and Act on the Implementation of International Sanctions (Sanctions Act) cannot be considered for the position (e.g., candidates from Russia, Iran, North Korea, China, among other countries).

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

Your application and supporting documentation must be in English.

Publications and other scientific work must follow the application. Please note that your application will be considered based solely on information submitted by the application deadline. You must therefore ensure that your application clearly demonstrates how your skills and experience fulfil the criteria specified above.

If, for any reason, you have taken a career break or have had an atypical career and wish to disclose this in your application, the selection committee will take this into account, recognizing that the quantity of your research may be reduced as a result.

Your application must include:

- CV, diplomas, and certificates
- a teaching portfolio, in which your teaching competence is compiled and presented systematically, (See guidelines for applicants: [Documentation of teaching qualifications in applications and appointments to academic positions at NTNU](#))
- academic works - published or unpublished - that you wish to be considered during assessment of your application (up to 10 works)
- a description of the academic works you consider most relevant, which you particularly wish to be factored into the assessment
- details of projects for which you have been project manager, with information about funding, duration and size
- a description (maximum 1 page) on how you envision your research in a Norwegian context and what would be the main sources of funding
- documentation of development and extensive experience in teaching and supervision at master/PhD level over time
- document participation in the development of educational quality in a work environment
- names and contact information for three relevant referees

You are encouraged to use the Universities Norway's [NOR-CAM toolbox](#) as a guide for documentation of your competence.

Joint work will also be considered. If it is difficult to identify your specific input to a joint project, you must include evidence of your contributions.

In the evaluation of which candidate is best qualified, emphasis will be placed on education, experience and personal and interpersonal qualities. Motivation, ambitions, and potential will also count in the assessment of the candidates. Our assessment of the pedagogical skills will be based on documented pedagogical material, forms of presentation in your academic works, teaching experience, PhD, and Masters supervision, and any other relevant pedagogical background. Both quality and scope will be taken into consideration, and an open scientific practice will be recognized.

NTNU is obliged by the evaluation criteria for research quality in accordance with [The San Francisco Declaration on Research Assessment - DORA](#) and The obligations in the [Coalition for Advancing Research Assessment \(CoARA\)](#) on responsible assessment of research and recognition of a wider range of academic contributions to science and society. This means that we will pay particular attention to the quality and academic range demonstrated by your scientific work to date. We will also pay attention to research leadership and participation in research projects. Your scientific work from the last five years will be given the most weight.

Your application will be considered by an expert committee. Candidates of interest will be invited to an interview, and to deliver a trial teaching session.

## General information

NTNU believes that inclusion and diversity is a strength. We want our faculty and staff to reflect Norway's culturally diverse population and we continuously seek to hire the best minds. This enables NTNU to increase productivity and innovation, improve decision making processes, raise employee satisfaction, compete academically with global top-ranking institutions and carry out our social responsibilities within education and research. NTNU emphasizes accessibility and encourages qualified candidates to apply regardless of gender identity, ability status, periods of unemployment or ethnic and cultural background.

NTNU is working actively to increase the number of women employed in scientific positions and has a number of [resources to promote equality](#).

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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.

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As an employee at NTNU, you must continually maintain and improve your professional development and be flexible regarding any organizational changes.

A public list of applicants with name, age, job title and municipality of residence is prepared after the application deadline. If you want to reserve yourself from entry on the public applicant list, this must be justified. Assessment will be made in accordance with [current legislation](#). You will be notified if the reservation is not accepted.

For the sake of transparency, candidates will be given the expert evaluation of their own and other candidates. As an applicant you are considered part of the process and is stipulated to rules of confidentiality.

If you have any questions about the position, please contact Professor Andreas Echtermeyer (Head of Applied Materials), email: [andreas.echtermeyer@ntnu.no](mailto:andreas.echtermeyer@ntnu.no)

If you have any questions about the recruitment process, please contact HR Consultant Linn-Cecilie Felle Brattheim, e-mail: [linn.c.felle@ntnu.no](mailto:linn.c.felle@ntnu.no)

If you think this looks interesting and in line with your qualifications, please submit your application electronically via [jobbnorge.no](http://jobbnorge.no) with your CV, diplomas and certificates attached. Applications submitted elsewhere will not be considered. Upon request, you must be able to obtain certified copies of your documentation.

**Application deadline: 19.05.2024**

## **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 Mechanical and Industrial Engineering**

We educate graduates who can create new products, operate and maintain products, and manage projects. The Department has a variety of bachelor's and master's degree programmes. We conduct wide-ranging research in fields such as technology, energy, product quality and development, and productivity. [The Department of Mechanical and Industrial Engineering](#) is one of eight departments in [the Faculty of Engineering](#).

### **Additional information**

#### **Contact persons:**

- Linn-Cecilie Felle Brattheim, HR Consultant  
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- Andreas Echtermeyer, Professor  
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#### **Place of service:**

Richard Birkelandvei 2b 7034 Trondheim (Trondheim Municipality)