

Postdoc in Robotic Handling and Maintenance of Fusion Reactors

Are you interested in Robotics and can you contribute to the development of the project Dynamics and Control of Robotic Handling and Maintenance of Fusion Reactors? Then the Department of Mechanical and Production Engineering invites you to apply for a 20-month postdoc position.

Expected start date and duration of employment

This is a 20-month position from May 1st 2026 or as soon possible.

Job description

- You will be working primarily with collaboration partners of remote handling and maintenance under the EUROfusion program
- The position will focus on aspects of dynamics and control of robotic handling and maintenance of breeding blankets and other core components of fusion reactors
- You will be involved in project meetings, writing reports, R&D work, and project related tasks
- These activities will be in close collaboration with our EUROfusion partners under the supervision of Xuping Zhang.

Your profile

- Applicants should hold a PhD in Robotics with good experiences in dynamics and control or similar.
- Experience in handling dynamic modelling and control, experimental setup and testing, Digital Twin and Machine Learning
- Publication experience
- Collaboration and/or management skills
- Communication and/or language skills
- Hands-on skills and programming experience

Who we are

The robot design and control team led by Xuping Zhang is dedicated to advancing robotic interaction and manipulation, with a focus on design, dynamics, modeling, and control. Their research has broad applications in manufacturing, inspection, and remote maintenance. In the past three years, the team has been working on the design and control of a robotic system for the maintenance of DEMO breeding blankets, in close collaboration with key EU fusion partners.

<https://mpe.au.dk/en/research/key-areas-in-research-and-development/mechatronics-and-dynamics-mechanical-and-production-engineering-technical-sciences-aarhus-university>

What we offer

The department offers:

- a well-developed research infrastructure, laboratories and access to shared equipment
- an exciting interdisciplinary environment with many national, international and industrial collaborators
- a research climate encouraging lively, open and critical discussion within and across different fields of research
- a work environment with close working relationships, networking and social activities
- a workplace characterised by professionalism, equality and a healthy work-life balance.

Place of work and area of employment

The place of work is Katrinebjergvej 89 G-F, 8200 Aarhus N, Denmark, and the area of

Application Deadline:
26 February 2026

Institute/Faculty:
Department of
Mechanical and
Production Engineering

Faculty:
Faculty of Technical
Sciences

Academic contact person:

Xuping Zhang
Sektionsleder for
Mekatronik og
Dynamik, lektor
+4541893167
xuzh@mpe.au.dk

Vacant positions:
1

Number of months:
20

Hours per week:
37

Expected date of accession:
01/05/2026

employment is Aarhus University with related departments.

Contact information

For further information, please contact: Associate Professor, Xuping Zhang, +45 41893167, Email: xuzh@mpe.au.dk.

Deadline

Applications must be received no later than February 26th.

Application procedure

Shortlisting is used. This means that after the deadline for applications – and with the assistance from the assessment committee chairman, and the appointment committee if necessary, – the head of department selects the candidates to be evaluated. All applicants will be notified whether or not their applications have been sent to an expert assessment committee for evaluation. The selected applicants will be informed about the composition of the committee, and each applicant is given the opportunity to comment on the part of the assessment that concerns him/her self. Once the recruitment process is completed a final letter of rejection is sent to the deselected applicants.

Letter of reference

If you want a referee to upload a letter of reference on your behalf, please state the referee's contact information when you submit your application. We strongly recommend that you make an agreement with the person in question before you enter the referee's contact information, and that you ensure that the referee has enough time to write the letter of reference before the application deadline.

Unfortunately, it is not possible to ensure that letters of reference received after the application deadline will be taken into consideration.

If you wish to add a referee **after** you have submitted your application, you must send this person's details (name, job title, place of work, and email address) as well as the name of the position you have applied for to: HR.Nattech@au.dk

Formalities and salary range

Technical Sciences refers to the [Ministerial Order on the Appointment of Academic Staff at Danish Universities under the Danish Ministry of Science, Technology and Innovation](#).

The application must be in English and include a curriculum vitae, degree certificate, a complete list of publications, a statement of future research plans and information about research activities, teaching portfolio and verified information on previous teaching experience (if any). Guidelines for applicants can be found [here](#).

Appointment shall be in accordance with the collective labour agreement between the Danish Ministry of Taxation and the Danish Confederation of Professional Associations. Further information on qualification requirements and job content may be found in the [Memorandum on Job Structure for Academic Staff at Danish Universities](#).

Salary depends on seniority as agreed between the Danish Ministry of Taxation and the Confederation of Professional Associations.

Aarhus University's ambition is to be an attractive and inspiring workplace for all and to foster a culture in which each individual has opportunities to thrive, achieve and develop. We view equality and diversity as assets, and we welcome all applicants.

Research activities will be evaluated in relation to actual research time. Thus, we encourage applicants to specify periods of leave without research activities, in order to be able to subtract these periods from the span of the scientific career during the evaluation of scientific productivity.

Aarhus University offers a broad variety of services for international researchers and accompanying families, including relocation service and career counselling to expat partners. Read more [here](#). Please find more information about entering and working in Denmark [here](#).

Aarhus University also offers a Junior Researcher Development Programme targeted at career development for postdocs at AU. You can read more about it [here](#).

The application must be submitted via Aarhus University's recruitment system, which can be accessed under the job advertisement on Aarhus University's website.

Aarhus University

Aarhus University is an academically diverse and research-intensive university with a

strong commitment to high-quality research and education and the development of society nationally and globally. The university offers an inspiring research and teaching environment to its 38,000 students (FTEs) and 8,300 employees, and has an annual revenues of EUR 935 million. Learn more at www.international.au.dk/