# Postdoctoral Position in Interaction Design Research

The Department of Digital Design & Information Studies within the School of Communication and Culture at Aarhus University invites applications for a postdoctoral position in interaction design research. The postdoctoral position is affiliated with the ACUTE research project, 'Artifact-inspired social robots: an alternative to robot cuteness for domestic robotics', funded by the Independent Research Fund Denmark.

The postdoctoral researcher position is full-time and 2-year fixed-term. It begins on 01 June 2025 or as soon as possible thereafter.

The School of Communication and Culture is committed to diversity and encourages all qualified applicants to apply regardless of their personal background.

# The ACUTE project

Most social robot designs are dominated by cute aesthetics, featuring baby-like characteristics such as large eyes, small chins, and rounded facial features and limbs. Such cute robot designs have been proven to evoke both physical and emotional responses in humans. However, despite the widespread use of the design approach, cute toy-like designs have also been found to be perceived as condescending and a source of rejection due to their child-like associations, which might not match personal perceptions or desired home aesthetics.

The ACUTE project aims to explore minimally visible social cues as an alternative way to indicate robot sociality. The project will focus on artefact-inspired robots (AIR), as an alternative trajectory to the dominant robot appearance categories: anthropomorphic (human-like), zoomorphic (animal-like), and technical (machine-like). Seeking to explore how the motion profile and visual appearance of AIR influence the formation of social expectations and ascription of social capacities. Aiming for robot designs that convey some level of social cues and ability for social coordination, but in a way where the user attributes non-human social capacities (socio-morphing), rather than *human* social and emotional capacities (anthropomorphising).

The project will apply a mix of qualitative research methods, with a constructive design research approach. Collecting user insights through qualitative interviews, design probes and user studies. As well as developing AIR concepts and prototypes inspired by the aesthetics of everyday objects which use movement and minimally visible social cues to indicate robot sociality.

#### Postdoctoral researcher position

The successful applicant will have both strong design and research skills, with a particular emphasis on qualitative research methods. The postdoctoral researcher is expected to be able to gain a qualitative understanding of how people ascribe social capacities to robots through interviews and design probes as well as transfer this knowledge to be used in the design of novel robot concepts. This is followed by a constructive design research approach, where the postdoctoral researcher is expected to take part in concept development, form giving, and prototyping of AIR robots. The postdoctoral researcher is also expected to be able to conduct qualitative lab-based user evaluations with the developed concepts and prototypes.

The successful applicant is expected to have a strong proficiency in research design, analysis, and reporting of the findings in scientific articles. The postdoctoral researcher will also take part in organising research-based project activities.

The successful applicant will work closely with the project manager, Associate Professor Majken Kirkegaard Rasmussen and Professor Johanna Seibt from the Department of Philosophy. The prototype design and development work will be supported by a research assistant. The place of work will be the Department of Digital Design and Information Studies (DDINF), which includes researchers with long traditions of interaction and speculative design, constructive design research, qualitative health, human-computer interaction, and co-design research, to mention a few. The successful applicant will be part of the Interaction Design research program at the school and the highly ranked HCI research group at the university. The postdoctoral researcher will also have access to local prototyping facilities.

# Teaching and supervision

As postdoctoral researcher in interaction design research your position is primarily research-based, but it will also involve a small degree of teaching and supervision. To that end, the successful applicant will be expected to take part in the department's teaching and supervision activities and to teach and supervise on BA-level, in the following course: <a href="Shape-Changing Objects and Spaces">Shape-Changing Objects and Spaces</a>.

**Application Deadline:** 22 January 2025

Faculty: Faculty of Arts

Institute/Faculty: School of Communication and Culture

# Academic contact person:

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Vacant positions:

Hours per week: 37

Number of months: 24

Expected date of accession: 01/06/2025

Given the international focus of the degree programmes, the successful applicant will be expected to teach in English.

#### Qualifications

Applicants must have a PhD degree or be able to document equivalent qualifications in a relevant field related to interaction design. The Independent Research Fund Denmark requires that an applicant's PhD diploma is dated no more than 4 years before 16 April 2024 (adjusted for any official periods of leave, such as pregnancy, maternity, parental and adoption leave, sickness, bereavement or care leave and military service; for further information, see "How to calculate the PhD age?" at Questions and answers — Independent Research Fund).

Applicants must be able to document, the following qualifications relevant to the position:

- an internationally oriented research profile within design research, interaction design, industrial design, human-computer interaction (HCI), or Human-robot interaction (HRI) as documented by a PhD dissertation and/or research publications
- prior experience with designing physical and interactive objects as well as conducting qualitative research
- experience in the self-directed management of research projects
- excellent communication and interpersonal skills to engage productively within the research team and with external organisations and institutions
- relevant teaching experience at university level as documented by a <u>teaching</u>
   <u>portfolio</u> (or equivalent documentation of teaching experience and qualifications)
   commensurate with the length of the applicant's academic career

Furthermore, it will be considered an advantage if applicants can document

- a track record of research publications of a high international standard commensurate with the length of the applicant's academic career
- experience in design and/or technical proficiency in developing prototypes
- experience of participation in national and international research networks
- time spent abroad working at one or more internationally recognised research institutions.

Finally, applicants are asked to provide a proposal for research to be undertaken within the stated framework of the research project (max. 1-2 pages). The proposal should focus primarily on how the applicant's prior research experience and competencies could contribute to the project. To document the applicant's design qualifications, the applicant is asked to provide a design portfolio of previous works.

Please note that although the application process can be completed on the Aarhus University system without uploading publications or a teaching portfolio, applications that do not include uploaded publications (maximum two) will not be considered.

Although the Aarhus University application system includes an option to upload letters of recommendation, please do not include letters of recommendation or references with the application. Applicants who are invited to an interview may be asked to provide references.

# Work environment

Active participation in the daily life of the department is a high priority, and we emphasise the importance of good working relationships, both among colleagues and with our students. To maintain and develop the department's excellent teaching and research environment, the successful applicant is expected to be present at the department daily.

We respect the balance between work and private life and strive to create a work environment in which that balance can be maintained. You can read more about <u>family</u> and work-life balance in Denmark.

Aarhus University also offers a <u>Junior Researcher Development Programme</u> targeted at career development for postdoctoral researchers at AU.

#### International applicants

International applicants are encouraged to read about the <u>attractive working conditions</u> and other benefits of working at Aarhus University and in Denmark, including healthcare, paid holidays and, if relevant, maternity/paternity leave, childcare and schooling. Aarhus University offers a wide variety of services for international researchers and accompanying families, including a <u>relocation service</u> and an <u>AU Expat Partner Programme</u>. You can also find information about the <u>taxation aspects of international researchers' employment by AU</u>.

#### The department

The place of employment is the Department of Digital Design and Information Studies, Helsingforsgade 14, 8200 Aarhus N, Denmark.

Prospective applicants are invited to view the department's website.

School of Communication and Culture

The school is a part of the Faculty of Arts. You will find information about the school and its <u>research programmes</u>, <u>departments</u>, and diverse activities on its <u>website</u>. Contact

For further information about the position, please contact the principal investigator (PI), Associate Professor Majken Kirkegaard Rasmussen <a href="mailto:mkirkegaard@cc.au.dk">mkirkegaard@cc.au.dk</a>
If you need help uploading your application or have questions about the recruitment process, please contact Arts HR support by email: <a href="mailto:hsi@au.dk">hsi@au.dk</a>.

#### Qualification requirements

Applicants should hold a PhD or equivalent academic qualifications.

#### **Formalities**

The Faculty of Arts refers to the Ministerial Order on the Appointment of Academic Staff at Danish Universities (the Appointment Order).

- Appointments shall be in accordance with the <u>collective labour agreement</u> 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.
- Further information on the application and supplementary materials may be found in Application Guidelines.
- The application must outline the applicant's motivation for applying for the
  position, attaching a curriculum vitae, a teaching portfolio, a complete list of
  published works, copies of degree certificates and examples of academic
  production (mandatory, but no more than five examples). Please upload this
  material electronically along with your application.

Aarhus University also offers a junior researcher development programme targeted at career development for postdocs at AU. You can read more about it here: <a href="https://talent.au.dk/junior-researcher-development-programme/">https://talent.au.dk/junior-researcher-development-programme/</a>

If nothing else is noted, applications must be submitted in English. The application deadline is at 11.59 pm Danish time (same as Central European Time) on the deadline day.

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. Shortlists may be prepared with the candidates that have been selected for a detailed academic assessment. A committee set up by the head of school is responsible for selecting the most qualified candidates. See this link for further information about shortlisting at the Faculty of Arts: shortlisting

## **Faculty of Arts**

The Faculty of Arts is one of five main academic areas at Aarhus University.

The faculty contributes to Aarhus University's research, talent development, knowledge exchange and degree programmes.

With its 700 academic staff members, 200 PhD students, 9,000 BA and MA students, and 1,500 students following continuing/further education programmes, the faculty constitutes a strong and diverse research and teaching environment.

The Faculty of Arts consists of the School of Communication and Culture, the School of Culture and Society and the Danish School of Education. Each of these units has

strong academic environments and forms the basis for interdisciplinary research and education.

The faculty's academic environments and degree programmes engage in international collaboration and share the common goal of contributing to the development of knowledge, welfare and culture in interaction with society.

Read more at arts.au.dk/en

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 <a href="www.international.au.dk/">www.international.au.dk/</a>