

Postdoc position in Sleep analysis for neurodegenerative diseases at the Department of Electrical and Computer Engineering

Applicants are invited for a postdoctoral research position at the Center for Ear-EEG at Department of Electrical and Computer Engineering, Aarhus University. The position is available from 1 February 2025.

We are seeking a postdoctoral researcher to join our research activities within ear-EEG based sleep analysis. We are looking for a researcher with significant experience within deep learning and advanced sleep models.

Expected start date and duration of employment

This is a 2-year position available from February 1 2025 or as soon as possible thereafter.

Job description

Ear-EEG enables discreet and unobtrusive monitoring of brain activities from electrodes placed in and around the ear. The vision of ear-EEG is to enable brain monitoring in real-life. Ear-EEG has a wide range of potential applications within health monitoring, brain-computer-interfaces, hearing prosthetic devices, sleep monitoring and consumer products.

We are seeking a postdoctoral researcher to join our research activities within ear-EEG based sleep analysis. We are looking for a researcher with significant experience within deep learning and advanced sleep models. It is further an advantage to have experience with PyTorch or similar machine learning frameworks.

Your profile

Applicants should have a M.Sc. and PhD degree within Biomedical Engineering, Machine Learning, Computational Neuroscience or related fields. The applicant must have a solid background within machine learning, deep learning and time series analysis. Experience with analysis of electrophysiological signals and ear-EEG is an advantage but not a requirement.

The applicant must have good oral and written communications skills and be a proficient English speaker.

Who we are

The Center for Ear-EEG is a research center at Department of Electrical and Computer Engineering at Aarhus University. The center has state-of-the-art laboratory facilities, and an internationally leading group of researchers. The center serves as a framework for research projects with the aim of developing technologies and methods related to ear-EEG, and for investigation of applications of ear-EEG.

We are a group enthusiastic and highly motivated researchers and engineers, with quite diverse backgrounds and research fields, all sharing the vision of advancing real-life brain monitoring. See <https://ece.au.dk/ear-eeeg> for more information about the Center for Ear-EEG, the people involved and the current research projects.

What we offer

- A strong and internationally renowned research group.
- A collaborative, supportive and friendly environment with a high level of professionalism.
- A well-developed research infrastructure, laboratories, and state-of-the-art equipment.
- Close collaboration with clinicians within the field of sleep and neurodegenerative diseases.

Place of work and area of employment

You will be employed by Department of Electrical and Computer Engineering, Aarhus University. The place of work is Finlandsgade 22, 8200 Aarhus N, Denmark.

Application Deadline:
21 November 2024

Faculty:
Faculty of Technical
Sciences

Institute/Faculty:
Department of
Electrical and
Computer Engineering

**Academic contact
person:**
Preben Kidmose
Professor
pk@ece.au.dk
+4541893321

Vacant positions:
1

Hours per week:
37

Number of months:
24

**Expected date of
accession:**
01/02/2025

Contact information

For further information, please contact: Professor Preben Kidmose, +45 4189 3321, email: pki@ece.au.dk.

Deadline

Applications must be received no later than 1 November 2024.

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.

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/