

Postdoc in Micromagnetics, Aarhus University, Denmark.

Description

Candidates with a strong background in micromagnetics are invited for a 1-year postdoctoral position. The position may be extended up to 6 months. The position is part of the MAGFLY project, which is focused on the development of flywheels using iron-oxide magnets. The position is theoretical/computational and focuses on the modeling and simulation of the microstructure of magnetic materials to predict macroscopic magnetic properties, in close collaboration with the experimental groups of the MAGFLY project. Additional subjects may include fracture mechanics and design of flywheel components.

The position is available from March 1st or as soon as possible hereafter.

Job description/research project/research area

The ideal candidate must have a strong background in simulation of micromagnetic systems and preferably also a strong background in the finite element method, fracture mechanics and programming. The successful candidate is expected to contribute to the sections activities within these fields and engage in interdisciplinary research with national and international groups. The MAGFLY project includes industrial partners and collaboration with industry will be seen as a natural part of the research activities.

Your profile

The applicant must hold a PhD in Mechanical Engineering, Material Science, Physics, Applied Mathematics, or a related discipline and must have strong written and communication skills and a demonstrated publication record.

Application should contain a cover letter, describing how your experience and background meet the requirements for this position, CV and name and contact information of two references.

About the Mechanical Engineering Section

Mechanical engineering is one of the oldest and most basic engineering disciplines but at the same time a research area that is undergoing explosive development with increasing possibilities for exploitation within industrial production, design of mechanical systems and materials. This research area has a multidisciplinary profile and reaches out both to the other engineering and science disciplines and to a number of different industries.

The researchers work with the behavior and performance of materials, structures and fluids when exposed to forces, movement and energy. Such understanding is central to all product development, operation and production conditions, optimisation and development.

Much of the mechanics research is demand driven with national and international enterprises participating in the definition and delimitation of the projects.

Department of Engineering offers a dynamic and interdisciplinary research environment with many national and international collaborators in science and industry. The Department seeks exceptional innovative and visionary engineering researchers to build-up, strengthen and develop the Mechanical

Engineering section at Aarhus University.

The place of work is Inge Lehmanns Gade 10, 8000 Aarhus, and the area of employment is Aarhus University with related departments.

Interested candidates are encouraged to contact Prof. Henrik M. Jensen (hmi@eng.au.dk) or Associate Professor Søren Peder Madsen (sma@eng.au.dk) for further information.

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, including the main considerations emphasized during the selection process.

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 Finance 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 Finance and the Confederation of Professional Associations.

All interested candidates are encouraged to apply, regardless of their personal background. 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 8,000 employees, and has an annual revenues of EUR 885 million. Learn more at www.international.au.dk/