Associate professor in Image Analysis and Pattern Recognition/
Machine Learning

Job description

A full-time associate professor position is available in the Digital Signal Processing and Image Analysis (DSB) group of the Department of Informatics. The specialization is in the field of image analysis and machine learning. The department seeks a potential scientific leader with clear research visions, educational and administrative skills, and abilities to establish and lead research projects, who will strengthen our research and education within image analysis and machine learning.

Description of the research group

The Digital Signal Processing and Image Analysis research group has four full-time and six adjunct positions. We perform research over a wide range of applications in image analysis/machine learning as well as in digital signal processing/acoustic imaging. We are part of the Machine Learning Section.

The Department of Mathematics and Natural Sciences is establishing a Center for Data Science and Computing, in which The Machine Learning Section is an important partner. The candidate for the position is invited to take an active role in this initiative.

There are about 25 PostDocs and PhD students in the group with funding from a variety of national and international sources, as well as from industry.

The DSB group offers a range of courses in image analysis ranging from a bachelor course in image processing to two MSc/PhD courses in image analysis, machine learning and deep learning for image recognition applications.

More information can be found on the group homepage: [http://www.mn.uio.no/ifi/english/research/groups/dsb/](http://www.mn.uio.no/ifi/english/research/groups/dsb/)

Specific information about the position

We are seeking a candidate with a solid background in both

- image analysis (particularly in feature extraction and image classification/segmentation)
- and machine learning,
- and preferably also with a solid experience in deep learning for image analysis applications. This should include several of the following fields: teaching experience, formal competence, extensive user experience and good knowledge of deep learning software, and publications in the field of deep learning.

A background related to ongoing research activities in the group is required and a research plan demonstrating a commitment to work in the application areas of the group is mandatory. The present research topics comprise medical image analysis, sonar, in-silico optical pathology, and remote sensing.

Qualification requirements

Primary assessment criteria are:

- The candidate must have
  - a PhD in a relevant area and
  - achieved associate professor level in image analysis and machine learning.
- Preference will be given to a candidate having experience with deep learning for image analysis applications.
- Fit to the research profile of the group.
- Emphasis will be put on the candidate’s research output over the last five years.
- Since the area of image analysis and machine learning is constantly evolving, the versatility and proven ability to adapt the research focus is considered an advantage.
- Candidates should also be able to lead, conduct and collaborate in research projects. A track record in academic and administrative leadership is an advantage, as well as participation in the acquisition of research grants.
- Collaboration with national and international research and industry has been a strong tradition in the DSB group and the candidate is expected to take a leading role in this activity.
- Teaching experience is an important factor in the evaluation of the candidates and should be well documented in a teaching portfolio. The applicant should describe her/his qualifications in view of the scholarship of teaching and learning (SoTL)-criteria:
  - Focus on the students’ learning
  - A definite development over time
  - A research attitude to teaching and learning
  - A collegial attitude and practice
- Fluency in both written and spoken English is a prerequisite.
- The candidate is expected to assume full responsibility and teach the group's courses at all levels. BSc and partly MSc level teaching is given in Norwegian and foreign applicants must commit to teaching in a Scandinavian language in two years.
The candidate for this position will be selected based on excellence and fit with the research profile and teaching obligations of the DSB group. Applications without meaningful and clearly described connection to the areas currently addressed by the section, and outlining both internal and external cooperation, will not be considered.

**We offer**

- Salary from kr 640 200 - kr 741 300 depending on competencies, in the position of Associate Professor (position code 1011)
- a professionally stimulating working environment,
- attractive welfare benefits and a generous pension agreement, in addition to Oslo’s family-friendly environment with its rich opportunities for culture and outdoor activities,
- the opportunity to apply for promotion to full professorship at a later stage.

**How to apply**

The application must include the following 11 attachments:

1. Application letter.
2. CV (including complete list of education, positions, pedagogical experience, administrative experience, project acquisition and coordination experience, funding and awards, and other qualifying activities).
3. Copies of educational certificates, PhD diploma, transcript of records and letters of recommendation
4. A complete list of publications and academic merits and awards (if not included in the CV).
5. Full text of up to 10 selected scientific publications the applicant wishes to include in the evaluation.
6. A document discussing the importance, interrelation, and relevance of the selected papers for this position - in particular in the context of the research group profile.
7. A research statement (2-4 pages) describing scientific ambitions for the nearest future including a commitment to work in the application areas of the group. Not that this should fit the research profile of the group.
8. A teaching portfolio describing the applicant’s qualifications in view of the SoTL-criteria, see list of criteria in the text above.
   - The teaching portfolio is expected to include:
     - Listing of teaching experience as well as work on developing/ revising/ renewing study plans and the design of courses.
     - Documentation of teaching qualifications and supervision of Master and PhD students.
9. Documentation of teaching qualifications and supervision of Master and PhD students, and up to a page describing teaching philosophy.
10. Description of dissemination activities beyond scientific publications.
11. List of 3 reference persons (name, relation to candidate, e-mail and phone number).

Application with attachments must be submitted via our online recruitment system. Please note that all documentation must be in English or a Scandinavian language.

Relevant candidates will be called for interviews and requested to hold a trial lecture and/or trial tuition, and references may be consulted.

**Formal regulations**

Please refer to the Rules for Appointments to Professorships and Associate Professorships at the University of Oslo, the Guide for Applicants and Members of the Assessment Committee and Rules for practicing the requirement for basic pedagogical competence at the University of Oslo.

The successful candidate who at the time of appointment cannot document basic teaching qualifications will be required to obtain such qualifications within a two-year period.

The successful candidate must demonstrate mastery of both English and one of the Scandinavian languages as working languages. If an appointee is not fluent in a Scandinavian language, the appointee will be expected within a two-year period to learn sufficient Norwegian to be able to participate actively in all functions the position may involve.

The basis for assessment will be the scholarly production of the applicant, other qualifications, pedagogical or educational, the applicant’s qualifications within leadership and administration as well as the general personal suitability. In the evaluation and ranking of the qualified candidates the full range of these criteria will be explicitly addressed and assessed.

Pursuant to section 25(2) of the Freedom of Information Act, information concerning the applicant may be made public, even if the applicant has requested not to appear on the list of applicants.

The University of Oslo has a transfer agreement with all employees that is intended to secure the rights to all research results etc. The University of Oslo has a personnel policy objective of achieving a balanced gender composition and to recruit people with an immigrant background.

In addition, the University of Oslo aims for its employees to reflect the diversity of the population to the greatest degree possible. We therefore encourage qualified applicants with disabilities or gaps in their CV to apply for the position. The University of Oslo will adapt the workplace to suit employees with disabilities. Applicants who indicate that they have disabilities or gaps in their CV are made aware that this information may be used for statistical purposes.

**Contact information**
About the University of Oslo

The University of Oslo is Norway’s oldest and highest rated institution of research and education with 28 000 students and 7000 employees. Its broad range of academic disciplines and internationally esteemed research communities make UiO an important contributor to society.

The Department of Informatics (IFI) is one of nine departments belonging to the Faculty of Mathematics and Natural Sciences. IFI is Norway’s largest university department for general education and research in Computer Science and related topics.

The Department has more than 1800 students on bachelor level, 600 master students, and over 240 PhDs and postdocs. The overall staff of the Department is close to 370 employees, about 280 of these in full time positions. The full time tenured academic staff is 75, mostly Full/Associate Professors.

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