



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 near 950 students on bachelor level, near 450 master students, and over 180 PhD students. The overall staff of the Department is close to 250 employees, about 200 of these are full time positions. The full time scientific staff is 60, mostly Full/Associate Professors.



Postdoctoral Research Fellow in Networking

The Department of Informatics seeks a postdoctoral research fellow starting March 1st, 2018. The position is for a period of four years.

Project description: The Internet Transport Layer: A New Network Bottleneck

TCP congestion control assumes a static network bottleneck, possibly loaded with dynamic traffic. However, modern networks (5G in particular) quickly vary the physical capacity that is offered to the transport layer, making this assumption wrong and rendering traditional congestion control less and less efficient. Thus, as network technology improves, its utilisation becomes worse and worse. To cope with this problem, we can use a spectrum of solutions, from gradually augmenting Internet technology such that TCP's control loops "learn" more about the environment on one end, to radically re-inventing the Internet and installing control loops inside the network on the other.

The research goal associated with this position is to try to understand which approaches within this spectrum yield the best trade-off between ease-of-deployment (feasibility) and efficiency, and develop mechanisms that ensure that the Internet can continue to function well in the face of quickly varying 5G links.

In addition to performing research in the above outlined areas, the person in this position will help the ND research group with these three tasks: (i) seeking funding from NFR and the EU, (ii) IETF activities, and (iii) collaboration with related research projects, such as the ongoing NFR project OCARINA.

Requirements:

The Faculty of Mathematics and Natural Sciences has a strategic ambition of being a leading research faculty. Candidates for these fellowships will be selected in accordance with this, and expected to be in the upper segment of their class with respect to academic credentials.

The candidate must hold a PhD or other corresponding education equivalent to a Norwegian doctoral degree in networking, or enclose a confirmation from the supervisor that the thesis will be delivered within 2 months.

The candidate must be able to work on the scientific challenges outlined in the first part. Relevant experience, including knowledge about related IETF standards, congestion control and end-to-end protocols will be emphasised.

The candidate will work to acquire funding from NFR and EU, and is expected to have experience with EU research projects.

The evaluation will be heavily dependent on the papers published, and the application should include them as a pdf-file.

Applicants are expected to also include a summary of academic specialization and statement of scientific interests. The main purpose of post-doctoral research fellowships is to qualify researchers for work in top academic positions within their disciplines. Please also refer to the regulations pertaining to the conditions of employment for post-doctoral fellowship positions:

Guidelines concerning appointment to postdoctoral and research posts at UiO

We offer:

- Salary NOK 517 700 - 590 000 per year, depending on qualifications and seniority.
- 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 application must include all of the following documents in order to be considered:

- Application letter
- Statement of research interests (at most 1 page)
- CV (summarizing education, positions, pedagogical experience, administrative experience and other qualifying activity)
- Copies of educational certificates, transcript of records, letters of recommendation

- A complete list of publications and up to five papers or other relevant academic works that the applicant would like to be considered by the evaluation committee
- Names and contact details of 2-3 references (name, relation to candidate, e-mail and telephone number)

Foreign applicants are strongly advised to attach an institutionally issued explanation of their University's grading system.

Please remember that all documents should be in English or a Scandinavian language.

Formal regulations:

Please see the [guidelines](#) and [regulations](#) for appointments to Postdoctoral fellowships at the University of Oslo.

According to the Norwegian Freedom and Information Act (Offentleglova) information about the applicant may be included in the public applicant list, also in cases where the applicant has requested non-disclosure.

The University of Oslo has an [agreement for all employees](#), aiming to secure rights to research results a.o.

The University of Oslo aims to achieve a balanced gender composition in the workforce and to recruit people with ethnic minority backgrounds.

For more information please contact:

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