

Associate Professor/Senior Lecturer in Geotechnical Engineering

The Department of Civil and Environmental Engineering works with every aspect of construction in the community – houses to live in, roads to travel on, and water to drink – from planning to maintenance, taking into account the environment, energy and economics. Analysis and problem-solving focus on the ways in which technology, humans and nature interact in society.

The Department has around 130 employees, divided between six research divisions and an administrative team, and is based at the Johanneberg Campus.

When it comes to research and education, our Department is at the forefront, and through our work, we contribute to a sustainable built environment.

The Division of GeoEngineering consists of three groups: Geotechnical Engineering, Engineering Geology and Road and Traffic. All three groups are carrying out both research and education. In Geotechnical Engineering the main research focus is soil modeling and its applications in engineering practice, lead by Prof. Minna Karstunen, who joined Chalmers in August 2012. Examples are analysis of slope stability, construction of infrastructure such as embankments and tunnels, and foundation engineering. The aspiration of the group in Geotechnical Engineering is to become an internationally leading group in Soft Soil Engineering, combining novel experimental testing with modeling and field application. In Geology the focus is within applied hydrogeology, risk assessment and engineering geology in hard rock engineering. Design of roads and road traffic safety are the main areas within Road and Traffic.

Chalmers has a state-of-the-art climate-controlled laboratory area for sample storage and element testing, from small to large strains. The research group houses a large workshop and skilled staff for metal working and electromechanical instrumentation, facilitating in-house built prototypes, as well as access to sampling and field testing equipment, such as the seismic dilatometer.

Job description

We are looking for a dynamic and talented individual for the position of Associate Professor/Senior Lecturer with expertise in experimental geotechnics. The position as Associate Professor/Senior Lecturer is a full time tenure appointment. The work tasks include teaching at all levels, from undergraduate to postgraduate, supervision of PhD students, conducting research as well as administrative and management duties. The applicants are expected to actively seeking external funding for research.

The holder of the post is supposed to play a leading role in education and research in the area of geotechnical engineering, focussing on challenges in experimental geotechnics. In addition to teaching, there will be a possibility to carry out own independent research, as well as to contribute to the research activities of the rest of the group through e.g. development of novel test set-ups for soft soil testing. The holder will be appointed a position which corresponds to his/her formal qualification and experience. Later promotion can be achieved by further qualification by own research.

Qualifications

To be qualified for the position the applicant should have an undergraduate degree in Civil Engineering, or a related topic, and a Ph.D. degree in the Geotechnical area. The post also requires documented teaching and pedagogical experience in this field, proven for instance by a certificate/diploma in Higher Education, as well as training in experimental techniques.

Required experiences and skills include:

- Ability and genuine interest to engage with international level independent research.
- Expertise in experimental geotechnics, such as element testing, model testing and/or field testing.
- Ability to develop independent research ideas and apply funding for research from industry and public bodies. For Associate Professor: Evidence of success in getting research funding.
- Experience in international collaborations and networking. For Associate Professor: Existing track-record of international collaborations.
- Competency in geotechnical engineering, as evidenced by practical experience and/or contributions to professional committees.

- Genuine interest in soft soil problems.

Useful experience and skills include:

- Experience in development of new equipment and instrumentation, with appropriate skills in programming control algorithms as well as signal and data processing.
- Experience in developing novel or innovative test set-ups and non-standard testing.
- Experience in MSc project supervision and PhD supervision, as appropriate to the applicant's career level.
- Familiarity with soft soil problems and testing is an advantage.

To be appointed Associate Professor, the applicant must be qualified for the Swedish docent level (in Swedish "oavlönad docent"). For the position as Associate Professor experience from research within academia or qualified research and development within industry or the public sector is required. For the position as Senior Lecturer experience from research within academia or qualified research and development within industry or the public sector is meritorious.

The undergraduates are normally taught in Swedish, although the graduate level teaching is in English. Thus good language skills are required. Applicants who do not have Swedish as native language are supposed to be able to teach in Swedish after two years of employment.

Application procedure

The application should be marked with Ref 20120315 and written in English. The application should be sent via Chalmers website (<http://www.chalmers.se/en/about-chalmers/vacancies/>), where you also will find detailed instructions for what to include and how to do it.

Application deadline: 2012-12-01

For questions, please contact:

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Chalmers University of Technology conducts research and education in engineering sciences, architecture, technology-related mathematical sciences, natural and nautical sciences, working in close collaboration with industry and society.

The strategy for scientific excellence focuses on our eight Areas of Advance; Built Environment, Energy, Information & Communication Technology, Life Science, Materials Science, Nanoscience & Nanotechnology, Production and Transport. The aim is to make an active contribution to a sustainable future using the basic sciences as a foundation and innovation and entrepreneurship as the central driving forces. Chalmers has around 11,000 students and 2,500 employees. New knowledge and improved technology have characterised Chalmers since its foundation in 1829, completely in accordance with the will of William Chalmers and his motto: Avancez!