

PhD Student in Soil Mechanics

Faculty/department Civil Engineering and Geosciences

Level Master degree

Maximum employment 38 hours per week (1 FTE)

Duration of contract 4 years

Salary scale €2125 to €2717 per month gross

Civil Engineering and Geosciences

The Faculty of Civil Engineering and Geosciences of Delft University of Technology (TU Delft) provides leading international research and education, with innovation and sustainability as central themes. Research and education are closely interwoven and address societal challenges. The Faculty consists of the departments of Transport and Planning, Structural Engineering, Geoscience and Engineering, Water Management, Hydraulic Engineering, and Geoscience and Remote Sensing.

The Department of Geoscience and Engineering encompasses 5 sections: Applied Geology; Applied Petrophysics and Geophysics; Geo-Engineering; Resource Engineering; and Petroleum Engineering. Within the Department there is considerable scope and encouragement for inter-disciplinary research. Current collaborations between Geo-Engineering and the wider Faculty include the Section of Offshore Engineering, and the Departments of Structural Engineering, Hydraulic Engineering, and Geoscience and Remote Sensing.

The Section of Geo-Engineering has 8 full-time and 6 part-time academic staff, and 30 PhD and Post-Doctoral researchers. Areas of expertise include soil mechanics, dykes and embankments, foundation engineering, underground space technology, engineering geology, and geo-environmental engineering. There are extensive experimental laboratory facilities, including large-scale soil-structure interaction testing facilities and a geotechnical centrifuge, as well as excellent computing facilities including access to national High Performance Computing networks.

Job description

Applications are invited for a PhD position in Soil Mechanics, to be based within the Section of Geo-Engineering. The research focuses on the influence of scour protection on the liquefaction potential of underwater sand slopes. The research is funded by Rijkswaterstaat, a part of the Dutch Ministry of Infrastructure and the Environment that is responsible for the design, construction, management and maintenance of the main infrastructural facilities in the Netherlands. The research is primarily experimental, and includes the use of a large purpose-built testing facility recently constructed in the Section of Geo-Engineering, as well as conventional and unconventional soil element testing. However, it will link-in closely with other research of the Section relating to the constitutive and numerical modelling of slope liquefaction. There is also collaboration with the Department of Hydraulic Engineering who have on-going research into the post-liquefaction behaviour of liquefied soil masses.

Requirements

Applicants should possess a good first degree in Civil Engineering or other related discipline. An interest in, and an aptitude for, experimental research in soil mechanics is essential, and an interest in numerical modelling is appreciated. Communication skills are important, and applicants should have a high level of proficiency in written and spoken English. The successful candidate will be expected to cooperate closely with other members of the research team.

Conditions of employment

TU Delft offers an attractive benefits package, including a flexible work week and the option of assembling a customised compensation and benefits package (the 'IKA'). Salary and benefits are in accordance with the Collective Labour Agreement for Dutch Universities.

As a PhD candidate you will be enrolled in the TU Delft Graduate School. The TU Delft Graduate School provides an inspiring research environment; an excellent team of supervisors, academic staff and a mentor; and a Doctoral Education Programme aimed at developing your transferable, discipline-related and research skills. Please visit www.phd.tudelft.nl for more information.

TU Delft sets specific standards for the English competency of the teaching staff. TU Delft offers training to improve English competency.

Information and application

For more information about this position, please contact Prof.dr. M.A. Hicks, phone: +31 (0)15-2787433, e-mail: m.a.hicks@tudelft.nl, or Dr. A. Askarinejad, phone: +31 (0)15-2783326, e-mail: A.Askarinejad@tudelft.nl. To apply, please e-mail a detailed CV, a letter of application and the names and contact details of two referees by 28 June 2015 to Drs. D. Verbunt, Recruitment-CITG@tudelft.nl.

When applying for this position, please refer to vacancy number CITG15-20.