

GEO-INSTALL Marie Curie Fellowship (Experienced Researcher)

GEO-INSTALL Marie Curie Industry-Academia Pathways and Partnerships project (PIAP-GA-2009-230638) sponsored by the European Community through the programme "People" 2009-2013, which aims to develop novel numerical tools for modelling large strain installation effects of geotechnical structures using Material Point Method, special Finite Element techniques and advanced constitutive modelling. For more information on the project, see <http://geo-install.co.uk>.

Vacancy description:

In the GEO-INSTALL project a 24-month Experienced Researcher (ER) position is vacant at TU Delft/Deltares in Delft, NL, related to research on probabilistic finite element analysis and stochastic distributions of soil data.

Other information:

The project focuses on the fact that soils are spatially variable materials and that this leads to uncertainty in design. It involves the statistical characterisation and numerical modelling of soil variability, and the finite element analysis of soil structures such as slopes and foundations, with the material properties assigned to the finite elements reflecting the variable nature of the soil profile expected on-site. Geo-structural performance will be quantified in terms of probability of failure. The project will seek to provide guidance on the selection of suitable characteristic property values for design given soil variability.

Essential expertise:

- PhD or equivalent experience in an engineering or related discipline.
- Computer programming skills: The researcher will be expected to manipulate and enhance existing computer programmes written in Fortran, and also to produce new computer modules.
- Finite element modelling and implementation.
- Soil mechanics or related area of geo-engineering.

Desirable expertise:

- Knowledge of statistics and probabilistic methods.

The supervisors of the project are Prof. Michael Hicks (TU Delft) and Mr. Marcel Visschedijk (Deltares).

Conditions:

Candidates must be willing to travel abroad and relocate. **Special eligibility conditions**¹ apply for appointments under Marie Curie Actions. For more information about Marie Curie fellowships see: http://ec.europa.eu/research/mariecurieactions/careers_en.htm.

Application procedure:

Persons interested in this position are requested to send their application letter + CV to Prof. Michael Hicks (M.A.Hicks@tudelft.nl) before February 15th, 2010. Applications by female candidates are encouraged.

¹ **Experience:** ER (experienced researcher) means a person who has either over 4 years (full-time equivalent) of research experience since completing his/her undergraduate degree or has a doctorate. For these positions, the persons cannot have more than 10 years of research experience since their undergraduate degree.

Mobility: The researchers must not have resided or carried out his/her main activity in the country where the host institution is located for >12 months within the last 3 years prior to the appointment.