

GEO-INSTALL Marie Curie Fellowship (Experienced Researcher)

GEO-INSTALL is a 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 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 months Experienced Researcher (ER) position is vacant at the University of Strathclyde, Glasgow, UK, on development, implementation and validation of constitutive models for modelling rate-dependent behaviour of structured soft soils.

Other information:

The ER will work on rate-dependent constitutive models for soft structured soft soils, considering both monotonic and cyclic loading, to be used in the context of FEM and MPM. The project aims to investigate the following:

- Comparison of rate-dependent models based on overstress theory and so-called extended over stress theory in terms of robustness and applicability in modelling soft structured soils, considering both normally consolidated and overconsolidated region.
- Robust numerical implementation in the finite element method, and if deemed necessary, the implementation of appropriate regularisation techniques.
- Application of the models to simulate installation of stone columns, piles and other structures in the soft soil.

Essential/Desirable expertise:

- A good honours degree (UK Equivalent) and a PhD in Engineering (or equivalent research experience), with research experience in constitutive and/or computational modelling in geotechnical context.
- Willingness to contribute to the management of GEO-INSTALL project and to engage in undergraduate and postgraduate teaching/supervision.
- High level communication skills and ability to work as part of a team.

The supervisors of the project are Dr Minna Karstunen (USTRAT) and Dr. Ronald Brinkgreve (Plaxis).

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 the HR at Strathclyde (see <http://soolin.mis.strath.ac.uk/vacancies/control/vacancyMenu> under Research) before February 15th, 2010. Applications by female candidates are encouraged. For further details, email minna.karstunen@strath.ac.uk.

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.