

## Post-doctoral position

### Contact:

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Location: LTDS at Ecole Centrale de Lyon

Duration: 12 months from 1<sup>st</sup> September 2012

The work that will be undertaken is part of the collaborative projects PEDRA and RESTOR (Ministry of Ecology, Ministry of Culture) devoted to the modelling, design and repair of dry stone structures. These structures are such as dry stone retaining walls, stone bridges, coastal dikes and rockfill dams having a stone pitching (structural stone facing). These projects started in 2011 and different PhD theses are under progress on these subjects.

More precisely, a PhD devoted to the modelling of the behaviour of dry stone retaining walls started in 2011 using a Discrete Element Method (DEM) for the study of plane strain failures and a DEM-FEM for the study of 3D failures (codes ITASCA).

On the base of some existing programs and results, the applicant will model the behaviour of a rockfill dam having a stone pitching using a DEM or DEM-FEM (codes ITASCA). The experiments that will allow a validation of the work are forecasted within the projects PEDRA and RESTOR under the guidance of Electricity of France.

The candidate must have completed a PhD, with a strong background in Soil Mechanics. Good programming skills are expected, particularly in relation with DEM. Good communication in English and ability to write articles in English are also required.

Applications involving CV, research skills and interests, diploma, can be sent by email to: eric.vincens@ec-lyon.fr.

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