



## PhD Studentship



### Exploring subsurface groundwater and geochemical rock interactions during drainage of a surface water reservoir in Switzerland.

Applications are invited for a field and laboratory-based PhD studentship investigating the geochemical response in rock fractures rocks during a period of surface reservoir drainage and subsequent refilling. The project findings will contribute to knowledge on very long-term behaviour of crystalline host rocks for geological disposal of nuclear waste. The project is jointly funded by the UK Engineering and Physical Sciences Research Council and Radioactive Waste Management Limited under the umbrella of the European Commission LASMO (LArge Scale Monitoring) programme.

The drainage and refilling of a surface water reservoir at the Grimsel Site, Switzerland provides a unique opportunity to study rock mechanical, hydraulic and chemical interactions during significant load changes. Hydraulic and geochemical data will be collected by the successful applicant in the underground rock laboratories at the Grimsel Test Site in Switzerland. Data analyses will lead to development of a conceptual geochemical model and hydraulic model of the site.

The successful candidate will join a leading interdisciplinary research group, Engineering Geosciences and Geomechanics in the Department of Civil and Environmental Engineering (CEE), University of Strathclyde (EGG, <http://www.strath.ac.uk/civeng/research/egg/>). CEE was recently rated 1<sup>st</sup> in Scotland and 8<sup>th</sup> in the UK in Civil Engineering (in the Times Higher Education Supplement) based on the outcome of the Government's 2014 Research Assessment, REF 2014.

This LASMO project will be led by Professor Lunn, PhD student supervision will be provided by Dr Richard Lord (Geochemistry) and Prof Zoe Shipton (Structural Geology).

Applications are welcome **from UK students only** with first or upper second class degrees in the areas of civil engineering, environmental engineering, chemistry, petroleum engineering, mining engineering or geosciences. A good knowledge of geochemistry or hydrochemistry is desirable but not essential.

The scholarship covers home tuition fees, a stipend of £13,863 for three years and a half years (42 months). Project costs cover research laboratory and field expenses and travel. Unfortunately, we cannot accept applications from students outside the UK.

For further information, please contact one of the following: Dr Richard Lord ([Richard.lord@strath.ac.uk](mailto:Richard.lord@strath.ac.uk)); Prof Zoe Shipton ([Zoe.shipton@strath.ac.uk](mailto:Zoe.shipton@strath.ac.uk)); or Prof Rebecca Lunn ([Rebecca.lunn@strath.ac.uk](mailto:Rebecca.lunn@strath.ac.uk)), Department of Civil and Environmental Engineering, University of Strathclyde, James Weir Building, Glasgow G1 1XJ

Applications should be submitted to: <http://www.strath.ac.uk/prospectus/postgraduateapplications/>

Please on the application (or your personal statement) state that you wish to be considered for the above studentship.

The deadline for the receipt of applications is April 30<sup>th</sup>, 2015.