

Funded (EPSRC CASE) PhD Opportunity

Thermal-Mechanical Behaviour of Concrete Exposed to Elevated Temperatures

School of Civil Engineering and Geosciences University of Newcastle upon Tyne

The School of Civil Engineering and Geosciences at the University of Newcastle upon Tyne has an international reputation for research excellence and offers a range of high quality research degree programmes leading to the degree of PhD. As a postgraduate research student at the University you will not only benefit from studying within a dynamic research environment with state-of-the-art equipment and facilities, but you will also have the opportunity to work with distinguished academics who are leading experts in their field.

The School is currently offering an EPSRC CASE PhD studentship, in cooperation with Halcrow, on the project "Thermal-Mechanical Behaviour of Concrete Exposed to Elevated Temperatures". The aim of this project is to investigate, by improving numerical modelling techniques, the coupled thermal-mechanical processes that occur in concrete when it is exposed to elevated temperatures as may be experienced by a structure exposed to fire, or in high temperature applications such as a nuclear reactor vessel.

The project will be computationally based and will involve the use of an existing coupled model for concrete exposed to high temperatures as well as its extension and development, in order to build on work which is already being carried out by a Halcrow-sponsored PhD student at the University of Glasgow.

The PhD studentship comprises a tax-free maintenance payment of around £12k per annum for three years (equivalent to more than £15k before tax), plus automatic payment of university fees, but as such is available only to permanent UK residents (<u>http://www.epsrc.ac.uk/PostgraduateTraining/InformationForStudents/GuideToEPS</u><u>RCDirectlyFundedPostgraduateTraining.htm</u>). In addition, further funding of approximately £4k per annum will be available through Halcrow sponsorship, making this a most exciting opportunity for candidates wishing to take up research in computational mechanics. Invaluable experience will also be gained through time spent in Halcrow's offices.

Closing date for applications is Friday 28th July 2006. Applications should be made online at <u>http://www.ncl.ac.uk/postgraduate/apply/applicationforms.phtml</u>. Applicants should normally hold, or be expecting to achieve, at least a 2:1 undergraduate degree, or a good pass at MSc level in the areas of civil / structural engineering, geomechanics or mathematics. Experience of numerical modelling and programming skills would be useful. We will be holding interviews for this studentship in late August / early September. Further information on this project may be obtained from Dr Colin Davie at <u>colin.davie@ncl.ac.uk</u> or 0191 222 6458.