MSc Research Studentship (1 year)
Stipend: £14,057

Tayside Centre for **G**eotechnical **E**ngineering in **N**atural **E**nvironments (Tay-GENE) is an exciting joint initiative between Abertay University (AU) and University of Dundee (UoD), funded by the Norman Fraser Design Trust. The Centre aims to link researchers and facilities at the Universities on Tayside to study the negative impacts caused by climate change on managed non-urban land.

Tay-GENE is fully-funding **three** MSc studentships (12 months) providing a stipend of £14,057, with tuition fees paid up to £4036 to fully cover the tuition fees for students for Home/EU applicants. Two studentships will be based at Abertay University and one studentship will be based at the University of Dundee.

This advert relates to Project 3, hosted by the University of Dundee with co-supervision from Abertay University.

Project 3 description: **Centrifuge modelling of natural geotechnical systems**

This project will focus on small scale physical modelling using the University of Dundee (UoD) geotechnical centrifuge facility. Centrifuge testing allows representative stress levels to be simulated in small scale models of complete geotechnical systems (in this case vegetated level and sloping ground.)

Experiments will be conducted to simulate coupled active loading of the trunk (windthrow) and resultant slope instability (landsliding) under conditions of extreme environmental storm loading. This will be simulated through controlling saturating within the ground and simulating wind forces on the vegetation using a £0.15M robotic actuator. Use will also be made of The UoD 3-D printing facilities and specimens will be sampled for imaging using the X-ray CT facility at AU to physically observe the effects of the root-soil interaction. The results of the centrifuge experiments will be used to validate numerical models developed in previous projects conducted at UoD..

Supervisory team:

Dr Jonathan Knappett (UoD), Dr Anthony Leung (UoD); Dr Glyn Bengough (UoD); Dr Cornelia Doerich-Stavridis (AU); Dr Ehsan Jorat (AU).

Entry requirements:

Candidates must have a first class or upper second-class honours degree in a relevant discipline (Civil Engineering/ Geotechnical Engineering/ Mathematics). Experience of modelling would be advantageous.

For applicants who are non-native speakers of English, the University requires IELTS of 6.5 (with no band less than 6.0 in the written component and no less than 5.5 in any other component) or an equivalent qualification accepted by the UKVI.

The Studentship is available from September 2016 at the earliest or any time up to a January 2017 start.

How to apply:

Visit: http://www.dundee.ac.uk/study/pg/research-interests/civil-engineering/. Under 'How to Apply' you should use the link **PhD in Civil Engineering** to upload your application via UKPASS. Please

ensure that you state you are applying for MSc by research and in the research proposal box, give "**Tay-GENE project 3, supervised by Drs Knappett & Leung"**.

Informal enquiries: email j.a.knappett@dundee.ac.uk, quoting **Tay-GENE project 3** in the subject line.

The University of Dundee is committed to equal opportunities and welcomes applications from all sections of the community.

The closing date for submissions is 25th August 2016. Submissions after this date will not be considered.