

Details Dr Katsu Goda | [logout](#)

Research Assistant in Multi-Hazards Modelling for Earthquakes & Tsunamis

Job number	ACAD101051
Division/School	Queen's School of Engineering
Contract type	Fixed term contract staff
Working pattern	Full time
Salary	£31342 - £35256
Grade	Grade I
Pathway	Pathway 2
Level	Level a
Closing date for applications	05-Oct-2014

One full-time Post-Doctoral Research Assistant position is available for the CRUST project (Cascading Risk and Uncertainty assessment of earthquake Shaking and Tsunami), which is funded by the EPSRC (Engineering and Physical Sciences Research Council).

The aim of this project is to model cascading hazards due to mega-thrust subduction earthquakes by developing a novel methodology for multi-hazards risk assessment from a holistic standpoint. One of the key features of the CRUST project is a coherent treatment of risk and uncertainty related to compounding risks due to mainshock ground shaking, massive tsunami, and prolific aftershocks acting on coastal infrastructure. Dr Katsu Goda (The Department of Civil Engineering at the University of Bristol, UK) is the principal investigator and acts as a supervisor. The project is conducted in close collaboration with Prof Tiziana Rossetto (EPICentre, University College of London [UCL]) and UCL researchers.

You will conduct research and provide support for activities related to the CRUST project. Your primary responsibility is to develop a comprehensive cascading multi-hazards framework for strong motion and tsunami. The 2011 Tohoku earthquake and tsunami is used for a main case study. You will take independent leadership for integrating the two hazards into a holistic risk framework and for developing a practical engineering tool. You will also contribute to more specific tasks, such as: (i) strong motion simulation of mega-thrust subduction earthquakes; (ii) spatiotemporal modelling of aftershock occurrence using global earthquake catalogue data; (iii) earthquake risk modelling due to mainshock and aftershock sequences; (iv) tsunami simulation and uncertainty/sensitivity analysis; and (v) case studies for other subduction zones (e.g. Hikurangi zone in New Zealand and Cascadia zone in Canada). These will be conducted in collaboration with Dr Goda as well as UCL researchers. The support/administrative responsibilities include: (i) organisation of and contribution to international workshops to be held in London, Tokyo, Vancouver, and Wellington, (ii) organisation of and preparations for the CRUST advisory meetings, and (iii) collaboration with UCL researchers and with academic/industrial partners of the CRUST project.

You will have a PhD in the areas of natural hazard modelling and impact assessment (or closely related discipline) and have strong background in either strong motion modelling or tsunami modelling, and in structural dynamics for civil infrastructure. In addition, strong background in risk analysis, probability & statistics, and reliability theory is desirable.

This appointment is offered on a full time fixed term contract for 33 months (2 years and 9 months) with a start date of 1 January 2015.

It is anticipated that interviews will take place in early October 2014.

Informal enquiries can be made to Dr Katsu Goda (katsu.goda@bristol.ac.uk)

Appointment may be either on a fixed term or a permanent contract depending on the extent of previous relevant research experience, in line with the University's Fixed Term Contract Agreement. Further information can be found at www.bristol.ac.uk/hr/ftc/

**Available documents**

[ACAD101051 Further Particulars](#)

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Updated 7 October 2013 by the Recruitment Team | [Feedback](#)
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