



JUNIOR RESEARCH FELLOW x 2 (1-Year Contract, renewable for a 2nd year)

Energy Systems Research Group **Department of Chemical Engineering** **Faculty of Engineering and the Built Environment**

The Energy Systems Research Group (ESRG), housed in the Department of Chemical Engineering in the Faculty of Engineering and the Built Environment at the University of Cape Town, has a strong reputation as South Africa's leading research group in this field. The ESRG combines quantitative modelling of energy and economic systems with policy analysis and field-based research, to generate and enhance knowledge of energy systems at sectoral, regional, national and continental scales, focused on South Africa, the SADC region and elsewhere in Africa. In SATIM, the group holds the only full energy sector model for South Africa, combining electricity and liquid fuels supply sectors on the supply side with industrial, transportation, commercial and residential users on the demand side. A dynamic linking of this energy systems model with a macroeconomic general equilibrium model allows for economic and policy analysis of energy systems decisions.

The ESRG has received funding to establish new contract posts to bolster its ability to conduct academic and socially responsive research in support of South Africa's just energy transition, national energy and climate change policy, and African and multilateral climate change policy. The programme will be executed in collaboration with Imperial College, UCL and Loughborough Universities and the Climate Compatible Growth programme. Applications are invited from suitably qualified persons for 2 new posts at the rank of Junior Research Fellow, commencing 1 February 2024 or at the earliest possible time thereafter. These posts are advertised for a 1-year contract, renewable for a 2nd year depending on satisfactory performance and the availability of funding.

Requirements for the job

- Either a PhD with 2-years of research experience outside of PhD studies, or a Masters degree with at least 5 years' work with experience in systems modelling or energy or climate mitigation policy analysis.
- Demonstrable proficiency in energy systems modelling (any recognised platform) or economic simulation modelling, or in data analysis relevant to energy systems, or in policy analysis relevant to the just energy transition.
- A minimum of 2 publications in recognized fora.
- Fluency in written and spoken English and skill in quantitative methods.

The following will be advantageous:

- A first degree in Engineering, Economics or Political Science
- Modelling-related skills, e.g. Python coding
- A track record of research projects led or participated in.
- Relevant industrial experience.
- Experience in international research collaboration.
- Professional registration.
- National Research Foundation rating.
- Experience in research administration or management (of courses, staff and/or research projects).

Responsibilities

- Contribute to ongoing research projects at the ESRG in energy and climate policy.
- Translation of research into papers to be published in peer-reviewed academic journals.
- Assist with maintenance and enhancement of the ESRG's modelling ecosystem.
- Assist in the production of research reports, policy briefs and other relevant outputs of the Group.
- Limited co-supervision of undergraduate students (research projects) and postgraduate students.
- Limited contributions to teaching of postgraduate courses.
- Assist in the management of research projects.
- Translate research findings for relevant non-academic audiences.
- Co-produce research with external non-academic partners.
- This position also comes with a resourced expectation to undertake further academic career development activities, e.g. short-courses or summer schools.

For further information about these positions, please contact the Head of the Energy Systems Research Group, Professor Harro von Blottnitz via email at Harro.vonBlottnitz@uct.ac.za

The annual cost of employment, including benefits, is in the range **R 544 062 - 753 904**.

To apply, please e-mail the below documents in a **single pdf file** to Prof. Harro von Blottnitz at Harro.vonBlottnitz@uct.ac.za.

- UCT Application Form (download at <http://forms.uct.ac.za/hr201.doc>);

- A letter of motivation; and
- Curriculum Vitae (CV).

An application which does not comply with the above requirements will be regarded as incomplete and will be disqualified. Only shortlisted candidates will be contacted and will be required to undergo competency assessments as part of the selection process.

Telephone: 021 650 2512

Website: www.epse.uct.ac.za/esrg

Reference number: E231245

Closing date: 31 January 2024

UCT is a designated employer and is committed to the pursuit of excellence, diversity, and redress in achieving its equity targets in accordance with the Employment Equity Plan of the University and its Employment Equity goals and targets. Preference will be given to candidates from the under-represented designated groups. Our Employment Equity Policy is available at www.hr.uct.ac.za/hr/policies/employ_equity.

UCT reserves the right not to appoint.