



Post Specification

Post Title:	Research Fellow in Climate Risk Assessment
Post Status:	Specific Purpose Contract Fixed-Term for a period of 22 months (commencing March 2024)
Research Group / Department / School:	School of Engineering, Trinity College Dublin, the University of Dublin
Location:	Trinity College Dublin, the University of Dublin College Green, Dublin 2, Ireland
Reports to:	Dr. Julie Clarke
Salary:	€42,783 (New Post-Doctoral Researcher, increasing to point 2 after 12 months)
Hours of Work:	37.5 hours per week
Closing Date:	12 Noon (GMT), 8 th March 2024

Post Summary

The CLIMECO project (Climate Change Impacts Costing Study and an Economic Appraisal of Adaptation Measures in Ireland) is research project funded by Ireland's Environmental Protection Agency. The project objectives are 1) to develop a methodology to determine the costs associated with climate change in Ireland for individual sectors and across all sectors, 2) to establish an economic decision-making framework that can be used to evaluate and to inform adaptation planning. The project is multi-disciplinary in nature and is a collaboration between Dr. Julie Clarke at Trinity College Dublin and Dr. Kelly de Bruin in the Economic and Social Research Institute. Ultimately, the project will contribute to more informed adaptation planning that considers cross-sectoral climate change vulnerabilities, and it will support Ireland's transition to a climate-resilient society.

The successful candidate will work under the guidance of Dr. Julie Clarke at Trinity College Dublin and will be responsible for developing methodologies to assess the vulnerability of society and its various sectors to climate change, including Extreme Weather Events (EWEs) (i.e. flooding, storms, periods of drought and periods of heat), as well as ongoing climate change impacts (i.e. sea level rise and coastal erosion). To do so, the project will establish cross-sectoral physical vulnerabilities to these climate hazards, which is necessary to inform costings assessments for climate impacts. The candidate will work closely with researchers in the ESRI to link physical vulnerabilities to broader economic and societal losses. Your work will be performed in accordance with the university's research integrity policy and all other relevant policies.

The role will involve gathering data from past EWEs in Ireland and engagement with relevant stakeholders to establish the vulnerability of various sectors to climate change impacts in Ireland, including critical infrastructure networks (i.e. transport, energy, water supply, communications) and the built environment. In addition, the role will involve exploring various adaptation measures to establish benchmark costings for adaptation options that can be used as part of an economic framework.

Standard Duties and Responsibilities of the Post

- Manage and conduct the research as directed by the Principal Investigator;
- Collect and analyse data relating to past Extreme Weather Events and ongoing issues of rising sea levels and coastal erosion in terms of the vulnerability of various sectors (i.e. critical infrastructure and the built environment);
- Conduct a comprehensive literature review in relation to the vulnerability of various sectors to climate impacts;
- Engage with a range of stakeholders, including infrastructure owners, local authorities, state agencies, as well as other key stakeholders concerned with climate change adaptation;
- Perform spatial modelling and risk assessment using a range of data inputs, including geo-spatial climate data, asset characteristics, etc.;
- Carry out any administrative work associated with your programme of research;
- Engage in the dissemination of the results of the research in which you are engaged in for the relevant research stakeholders in the appropriate form.

Funding Information

Ireland's Environmental Protection Agency

Person Specification

Qualifications

- A PhD or equivalent in engineering, geography or other closely related fields;
- Excellent verbal and written communication skills;
- Ability to work independently and to efficiently deliver results in a timely manner;
- Ability to work as part of a multi-disciplinary team;
- Demonstrated record of peer-reviewed scientific publication.

Knowledge & Experience (Essential & Desirable)

- Experience in geospatial analysis (essential);
- Knowledge of climate change impacts (desirable);

- Evidence of productivity through research outputs (essential);
- Evidence of stakeholder engagement (desirable);
- Knowledge of risk assessment due to climate change and adaptation (desirable).

Skills & Competencies

- Geographical Information System software skills;
- Risk assessment due to climate change impacts using numerical datasets;
- Communication skills and ability to engage with stakeholders;
- Data management and analysis;
- Ability to publish peer-reviewed scientific articles.

Application Procedure

Applicants should submit a full Curriculum Vitae to include the names and contact details of 2 referees (including email addresses), to Dr. Julie Clarke Julie.clarke@tcd.ie

Further Information for Applicants

URL Link to Area	www.tcd.ie
URL Link to Human Resources	https://www.tcd.ie/hr/

Trinity College Dublin, the University of Dublin

Trinity is Ireland's leading university and is ranked 108th in the world (QS World University Rankings 2020). Founded in 1592, the University is steeped in history with a reputation for excellence in education, research and innovation.

Located on an iconic campus in the heart of Dublin's city centre, Trinity has 18,000 undergraduate and postgraduate students across our three faculties – Arts, Humanities, and Social Sciences; Engineering, Mathematics and Science; and Health Sciences.

Trinity is ranked as the 17th most international university in the world (Times Higher Education Rankings 2020) and has students and staff from over 120 countries.

The pursuit of excellence through research and scholarship is at the heart of a Trinity education, and our researchers have an outstanding publication record and strong record of grant success. Trinity has developed 19 broad-based multidisciplinary research themes that cut across disciplines and facilitate world-leading research and collaboration within the University and with colleagues around the world. Trinity is also home to 5 leading flagship research institutes:

- Trinity Biomedical Sciences Institute (TBSI)
- Trinity College Institute of Neuroscience (TCIN)
- Trinity Translational Medical Institute (TTMI)
- Trinity Long Room Hub Arts and Humanities Research Institute (TLRH)
- Centre for Research on Adaptive Nanostructures and Nanodevices (CRANN)

Trinity is the top-ranked European university for producing entrepreneurs for the past five successive years and Europe's only representative in the world's top-50 universities (Pitchbook Universities Report).

Trinity is home to the famous Old Library and to the historic Book of Kells as well as other internationally significant holdings in manuscripts, maps and early printed material. The Trinity Library is a legal deposit library, granting the University the right to claim a copy of

every book published in Ireland and the UK. At present, the Library's holdings span approximately 6.5 million printed items, 400,000 e-books and 150,000 e-journals.

With over 120,000 alumni, Trinity's tradition of independent intellectual inquiry has produced some of the world's finest, most original minds including the writers Oscar Wilde and Samuel Beckett (Nobel laureates), the mathematician William Rowan Hamilton and the physicist Ernest Walton (Nobel laureate), the political thinker Edmund Burke, and the former President of Ireland Mary Robinson. This tradition finds expression today in a campus culture of scholarship, innovation, creativity, entrepreneurship and dedication to societal reform.

Rankings

Trinity is the top ranked university in Ireland and ranked 108th in the world (QS World University Rankings 2020). Trinity ranks in the top 50 in the world on 6 subjects and in the top 100 in 20 subjects (QS World University Rankings by Subject 2019). Full details are available at: www.tcd.ie/research/about/rankings.

Equal Opportunities Policy

Trinity is an equal opportunities employer and is committed to employment policies, procedures and practices which do not discriminate on grounds such as gender, civil status, family status, age, disability, race, religious belief, sexual orientation or membership of the travelling community. On that basis we encourage and welcome talented people from all backgrounds to join our staff community. Trinity's Diversity Statement can be viewed in full at <https://www.tcd.ie/diversity-inclusion/diversity-statement>.

Pension Entitlements

This is a pensionable position and the provisions of the Public Service Superannuation (Miscellaneous Provisions) Act 2004 will apply in relation to retirement age for pension purposes. Details of the relevant Pension Scheme will be provided to the successful applicant.

Applicants should note that they will be required to complete a Pre-Employment Declaration to confirm whether or not they have previously availed of an Irish Public Service Scheme of incentivised early retirement or enhanced redundancy payment. Applicants will also be required to declare any entitlements to a Public Service pension benefit (in payment or preserved) from any other Irish Public Service employment.

Applicants formerly employed by the Irish Public Service that may previously have availed of an Irish Public Service Scheme of Incentivised early retirement or enhanced redundancy payment should ensure that they are not precluded from re-engagement in the Irish Public Service under the terms of such Schemes. Such queries should be directed to an applicant's former Irish Public Service Employer in the first instance.



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