**Post Specification**

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| **Post Title:** | **Research Assistant in Environmental Technology and Plant-Soil Ecology** |
| **Post Status:** | Specific Purpose Contract – Full-time |
| **Research Group / Department / School:** | School of Natural Sciences, Discipline of Botany, Trinity College Dublin, the University of Dublin |
| **Location:** | Botany Building,  Trinity College Dublin, the University of Dublin  College Green, Dublin 2, Ireland |
| **Reports to:** | Dr Richard Nair |
| **Salary:** | Appointment will be made on the RI Research Assistant pay scale at a point in line with Government Pay Policy appointment will be made no higher than point 7 [€38,174 per annum gross], and will proceed with advancement |
| **Hours of Work:** | Full Time |
| **Closing Date:** | until filled |

**Post Summary**

This post is a research assistant role in the **Plant-Soil Biogeochemistry group** at **Trinity College Dublin** (Botany Discipline). The holder will primarily contribute to a project about understanding the controls of soil respiration – the release of climate-warming CO2 from soil systems via its component sources such as roots and microbes. You will perform a mix of field, lab, and engineering tasks and support activity in our interdisciplinary working group. We do not expect applicants to necessarily fill all these competencies at onset but be able to grow into them through the role.

We have developed custom-built ‘minirhizotron’ root imaging instruments to image roots *in situ*. This role will work with these instruments, adapt them for new experimental set ups, and run them in ecosystem experiments and support fieldwork to validate the data from these instruments with classical ecological / soil science techniques. The role includes building, assembling, and maintaining instruments based on existing designs. The successful candidate will follow protocols and work closely with colleagues to deploy and troubleshoot sensor systems in field conditions. Prior engineering or electronics experience is not necessarily required, although **technical curiosity and willingness to learn are highly valued**.

Field sites are in Ireland, although there may be potential for additional field work abroad in the UK and EU. The role may include contributing to the wider dissemination of the technology to other users, potentially through early-stage commercial development or artistic and public outreach collaborations. The successful candidate will be embedded in a dynamic and interdisciplinary project team, including scientists at different career stages. The exact tasks of the role may change during the project.

**Standard Duties and Responsibilities of the Post**

The successful candidate will:

* Develop and maintain custom root imaging and root measurement instruments and methods in a cutting-edge research project seeking to understand our changing planet
* Perform fieldwork in forest and agricultural settings, plus follow-up laboratory work
* Work with ecologists, engineers, and computer scientists
* Attend meeting and training events, collaborate with researchers, and contribute to project reporting and reviews where necessary.
* Perform other duties that arise from time to time as directed by the project.

**Person Specification**

**Qualifications**

BSc or MSc in a field relevant to the project (e.g. engineering, applied plant sciences, or a closely related discipline)

**Knowledge & Experience (Essential & Desirable)**

**Essential**

* Knowledge in plant-soil interactions or biogeochemistry, or strong interest in technological applications to such sustainability related fields
* Relevant laboratory or workshop experience
* Fieldwork experience (or other relevant outdoor activity)
* Technical literacy (e.g. sensor handling, data logging, calibration) and willingness to assemble and troubleshoot instruments based on existing designs and guidance
* Experience of working in multidisciplinary environments and communicating with colleagues from diverse backgrounds (e.g. ecology, engineering, computer science).
* Willingness to learn aspects of role not covered by initial skillset

**Desirable**

* Full, clean driving licence valid in Ireland \*
* Electronics or engineering (basic skills in Arduino / Raspberry pi, sensor integration, 3D printing, instrument housing fabrication) experience
* Programming or data handling (e.g. R, python)
* Science communication or outreach skills
* Experience in field settings and engaging with biological and agricultural sciences research
* Experience or interest in translating research into tools, resources, or applications for wider use (e.g. open-access technologies, research commercialisation)

**Skills & Competencies**

▪ Proven ability to work as part of a team and independently.

▪ Highly motivated individual with the ability to effectively plan, execute, and deliver project outputs within deadlines.

▪ Effective communication, interpersonal and organisation skills.

▪ Excellent team working skills with emphasis on equality, diversity, and inclusion.

**Application Procedure**

**We welcome applications from candidates with diverse backgrounds and encourage those who may not meet every criterion but are enthusiastic and eager to learn.** Applicants should submit a full Curriculum Vitae, including the names and contact details of 2 referees and a letter of interest (max 1 page), to:-

Richard Nair [richard.nair@tcd.ie](mailto:richard.nair@tcd.ie) with the subject line ‘2025 Research Assistant application’

Due to the high volume of applications expected, please indicate clearly in your application email:

1) Whether you are currently eligible to work in Ireland, (including your visa status, if applicable).

2) if you hold a full, clean driving license for class B vehicles \**Candidates who can transfer a license or who are in the process of obtaining one will also be considered. Exceptional candidates without a license may still be considered, especially where other aspects of the application are particularly strong.*

3) Your earliest date of potential availability.

Informal enquiries are welcome. Applications will be reviewed as received and suitable candidates invited for interview.

**Funding Information**

Details currently embargoed by funder

**Further Information for Applicants**

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| URL Link to Area | <https://www.tcd.ie/Botany/>  https://rosemount.ucd.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 98th in the world (QS World University Rankings 2023). 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](https://www.tcd.ie/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 1st in Europe for Producing Entrepreneurs for the 7th year in a row and Europe’s only representative in the world’s top-50 universities

(Pitchbook 2021-2022).

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 College Dublin is the top ranked university in Ireland. Using the QS methodology we are ranked 98th in the world and using the Times Higher Education World University Ranking methodology we are 146th in the World.

* Trinity College Dublin is Ireland's No.1 University  
  (QS World University Ranking 2023, Times Higher Education Rankings 2022)
* Trinity is ranked 98th in the World  
  (QS World University Ranking 2023)
* Trinity is ranked No.1 in Europe for Producing Entrepreneurs for the 7th year in a row Pitchbook 2021-2022

Full details are available at: [www.tcd.ie/research/about/rankings](http://www.tcd.ie/research/about/rankings).

**The Selection Process in Trinity**

The Selection Committee (Interview Panel) may include members of the Academic and Administrative community together with External Assessor(s) who are expert in the area. Applications will be acknowledged by email. If you do not receive confirmation of receipt within 1 day of submitting your application online, please contact the named hiring lead on the job specification immediately and prior to the closing date/time.

Given the degree of co-ordination and planning to have a Selection Committee available on the specified date, the University regrets that it may not be in a position to offer alternate selection dates. Where candidates are unavailable, reserves may be drawn from a shortlist. Outcomes of interviews are notified in writing to candidates and are issued no later than 5 working days following the selection day.

In some instances the Selection Committee may avail of telephone or video conferencing. The University’s selection methods may consist of any or all of the following: Interviews, Presentations, Psychometric Testing, References and Situational Exercises.

It is the policy of the University to conduct pre-employment medical screening/full pre-employment medicals. Information supplied by candidates in their application (Cover Letter and CV) will be used to shortlist for interview.

Applications from non-EEA citizens are welcomed. However, eligibility is determined by the Department of Business, Enterprise and Innovation and further information on the Highly Skills Eligible Occupations List is set out in Schedule 3 of the Regulations <https://dbei.gov.ie/en/What-We-Do/Workplace-and-Skills/Employment-Permits/Employment-Permit-Eligibility/Highly-Skilled-Eligible-Occupations-List/> and the Ineligible Categories of Employment are set out in Schedule 4 of the Regulations <https://dbei.gov.ie/en/What-We-Do/Workplace-and-Skills/Employment-Permits/Employment-Permit-Eligibility/Ineligible-Categories-of-Employment/> . Non-EEA candidates should note that the onus is on them to secure a visa to travel to Ireland prior to interview. Non-EEA candidates should also be aware that even if successful at interview, an appointment to the post is contingent on the securing of an employment permit.

**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.

**Application Procedure**

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