Position Description – Research Fellow (Postdoctoral) – Soil Carbon

Position Details

Position Title: Research Fellow (Postdoctoral) – Soil Carbon

College/Portfolio: STEM College

School/Group: School of Science/Applied Chemistry and Environmental Sciences

Campus Location: Based at the City campus but may be required to work and/or be based at other campuses of the University.

Classification: Academic Level A

Employment Type: Fixed Term for 3 years

Time Fraction: Negotiable 0.6-1 FTE

RMIT University

RMIT is a multi-sector university of technology, design and enterprise with more than 96,000 students and close to 10,000 staff globally. The University's mission is to help shape the world through research, innovation and engagement, and to create transformative experiences for students to prepare them for life and work.
https://www.rmit.edu.au/about
https://www.universitiesaustralia.edu.au/university/rmit-university/

Our three main campuses in Melbourne are located in the heart of the City, Brunswick and Bundoora. Other locations include Point Cook, Hamilton and Bendigo, two campuses in Vietnam (Hanoi and Ho Chi Minh City) and a centre in Barcelona, Spain. RMIT is a truly global university.
https://www.rmit.edu.au/about/our-locations-and-facilities

We are also committed to redefining our relationship in working with, and supporting, Indigenous self-determination. Our goal is to achieve lasting transformation by maturing our values, culture, policy and structures in a way that embeds reconciliation in everything we do. We are changing our ways of knowing, working and being to support sustainable reconciliation and activate a relationship between Indigenous and non-Indigenous staff, students and community. Our three campuses in Melbourne (City, Brunswick and Bundoora campuses) are located on the unceded lands of the people of the Woi Wurrung and Boon Wurrung language groups of the eastern Kulin Nation.

Why work at RMIT University

Our people make everything at the University possible. We encourage new approaches to work and learning, stimulating change to drive positive impact. Find out more about working at RMIT University, what we stand for and why we are an Employer of Choice.
https://www.rmit.edu.au/careers

We want to attract those who will make a difference. View RMIT's impressive standings in university rankings.
https://www.rmit.edu.au/about/facts-figures/reputation-and-rankings

STEM College

The STEM College holds a leading position and expertise in the science, technology, engineering, mathematics, and health (STEM) fields. We are uniquely positioned to influence and partner with industry, as never before.

STEM College is a community of exceptional STEM researchers, teachers, inventors, designers and game-changers, supported by talented professional staff. We offer higher education programs across all STEM disciplines at the Bachelor, Master and PhD levels, and ensure our students experience an education that is work-aligned and life-changing.

The College is renowned for its exemplary research in many STEM areas including advanced manufacturing and design; computing technologies; health innovation and translational medicine; nano materials and devices; and sustainable systems. Our brilliant researchers attract funding from government and industry sources.

Industry is at the heart of what we do. It ensures our research has real world impact, and our students are truly work-ready. Under the leadership of DVC STEM College & Vice President, Digital Innovation, we have established new hubs of industry-connected digital innovation and endeavour and are engaging with global STEM organisations at scale.

Our diversity and shared values empower our work, and we are proud of the College's inclusive, caring culture. We offer a safe, dynamic work environment, and support every member of our community of achieve their potential. The College appointed Victoria's first ever Dean of STEM, Diversity & Inclusion in 2020, and this role drives gender equity, diversity and inclusion strategies across the College.

STEM College employs 1,000 staff who deliver onshore and offshore programs to approximately 20,000 students.

We are here to positively impact the world and create the next generation of STEM leaders. www.rmit.edu.au/seh

School of Science

The School of Science provides more than 45 bachelor and postgraduate programs to 5,000 students and undertakes world-class research across the disciplines of:

- biosciences and food technology
- applied chemistry and environmental science
- physics
- mathematical sciences
- geospatial sciences

Position Summary

Join the Soil-Atmosphere-Anthroposphere Lab at RMIT University to drive ground breaking research to ascertain the sampling protocols required to detect a statistically significant increase in soil carbon in agricultural ecosystems in south-eastern Australia. Working in partnership with AgriProve, the postdoctoral fellow will lead statistical analysis of existing data sets from several hundred farms and work with the team to analyse new results collected annually from 30 properties over three years. Regenerative agriculture or agroecology is the focal farming practice of this research.

Satellite earth observation data and other existing spatial databases may also be used, in addition to topographic and climatic datasets, to inform the sampling design to ensure comprehensive, adequate and representative SOC measures across the range of influencing environmental conditions.

The approach that the Soil-Atmosphere-Anthroposphere Lab brings to all of our work involves combining rigorous independent science with deep stakeholder engagement and technical innovation. We are looking for a highly motivated researcher with strong mathematical expertise, outstanding written and oral communication skills, maturity and people skills. A farming background and experience in regenerative agriculture/agroecology would be an advantage. You will be joining a team that delivers impactful outputs, is attentive to deadlines, timely and sensitive communication and collaborative practices.

Reporting Line

Reports to: Dr Samantha Grover, Soil-Atmosphere-Anthroposphere Lab leader and Professor Kim Dowling, Associate Dean Applied Chemistry and Environmental Science

Organisational Accountabilities

RMIT University is committed to the health, safety and wellbeing of its staff. RMIT and its staff must comply with a range of statutory requirements, including equal opportunity, occupational health and safety, privacy and trade practice. RMIT also expects staff to comply with its policy and procedures, which relate to statutory requirements and our ways of working.

RMIT is committed to providing a safe environment for children and young people in our community. Read about our commitment and child safe practices. https://www.rmit.edu.au/about/our-locations-and-facilities/facilities/safety-security/child-safety.

Appointees are accountable for completing training on these matters and ensuring their knowledge and the knowledge of their staff is up to date.

Key Accountabilities

1. Lead soil carbon data analysis and presentation of results in appropriate formats for industry and academic audiences
2. Communicate the new knowledge generated about soil carbon to the wider scientific community via publication in Q1 journals
3. Communicate the new knowledge generated about soil carbon to industry, government and community stakeholders via oral presentations, policy dialogue workshops and social media
4. Contribute to delivering on externally funded Project Milestones within agreed timelines
5. Maintain regular communications within the RMIT team and between RMIT and research partners
6. Undertake administrative tasks related to the Soil Carbon research project
7. Mentor and/or co-supervise postgraduate students and undergraduate Environmental Science Project students associated with the Soil Carbon research program

Key Selection Criteria

1. Demonstrated high level written and verbal communication skills.
2. Emerging publication record, as evidenced by publications in peer reviewed international journals.
3. Expertise in mathematical modelling and statistical data analysis as applied to agricultural systems
4. Expertise in regenerative agriculture/agroecology and strong competency in R
5. Experience in using spatial information and/or remote sensing data for environmental modelling and expertise in GIS packages such as ArcGIS, QGIS or equivalent would be an advantage.
6. Strong interpersonal and communications skills in a team setting across multiple locations and organisations
7. Demonstrated ability to work sensitively, confidently and effectively with people from different cultures and across academia, industry and the farming community.
8. Demonstrated organisational skills and ability to meet deadlines and effectively manage varying workloads and respond to changing priorities as required.
9. Independent, highly self-motivated and flexible, with some prior experience living and working in agricultural ecosystems

Qualifications

Mandatory: PhD Qualification in mathematics as applied to agricultural ecosystems, Masters Qualification in Applied Mathematics, Bachelors Qualification in Applied Mathematics

Note: Appointment to this position is subject to passing a Working with Children Check and other checks as required by the specific role. Maintaining a valid Working With Children Check is a condition of employment at RMIT.

Endorsed:	Signature: Name: Title: Date:	**Approved:**	Signature: Name: Title: Date: