



POSITION DESCRIPTION

School of Electrical, Mechanical and Infrastructure Engineering
Faculty of Engineering and Information Technology

Research Fellow in Water resources and Climate Change

POSITION NO	0064018
CLASSIFICATION	Research Fellow Grade 1 (Level A) Level of appointment is subject to qualifications and experience
SALARY RANGE	Level A \$83,468 - \$113,262 p.a. (pro rata for part-time)
SUPERANNUATION	Employer contribution of 17%
WORKING HOURS	Full time (1.0 FTE)
BASIS OF EMPLOYMENT	Fixed term for 3 years Fixed term contract basis: Externally funded research
OTHER BENEFITS	https://about.unimelb.edu.au/careers/staff-benefits
HOW TO APPLY	Online applications are preferred. Go to http://about.unimelb.edu.au/careers , select the relevant option ('Current Opportunities' or 'Jobs available to current staff'), then find the position by title or number.
CONTACT FOR ENQUIRIES ONLY	A/Prof Avril Horne Tel 0413 848 350 Email avril.horne@unimelb.edu.au <i>Please do not send your application to this contact</i>

For information about working for the University of Melbourne, visit our website:
about.unimelb.edu.au/careers

Acknowledgement of Country

The University of Melbourne would like to acknowledge and pay respect to the Traditional Owners of the lands upon which our campuses are situated, the Wurundjeri and Boon Wurrung peoples, the Yorta Yorta Nation, the Dja Dja Wurrung people. We acknowledge that the land on which we meet and learn was the place of age-old ceremonies, of celebration, initiation and renewal, and that the local Aboriginal peoples have had and continue to have a unique role in the life of these lands.

Position Summary

Despite the urgent need, there is only ad hoc climate adaptation in the Murray Darling Basin. Existing methods for dealing with climate risk have been highly ineffective, as they present a “science-centric” narrative that lacks connection with “everyday” concerns of stakeholders. The large amount of “science-centric” information available is also of limited use to water resources planners and decision makers, generally resulting in decision paralysis. This is exemplified by the imbalance between abundant climate risk information and comparatively scarce climate adaptation. Without accepted, actionable climate adaptation strategies, the risk is that some basin stakeholders will not be prepared for future climate change impacts.

This position will form part of a One Basin CRC research team working on the project “Putting people at the centre: towards transforming climate risk assessment for water security and delivery”. The project aims to develop a new approach to climate risk assessment. This will be done in an iterative manner using four case study locations in different parts of the Basin.

This is a technical role supporting research in decision making under a variable and changing climate. You will work as part of an internationally recognised team of researchers, undertaking analysis, participatory research and modelling in support of an existing research agenda. The position would suit a candidate with interests across any combination of water resource modelling, social sciences, climate adaptation and water policy.

There is an opportunity to be located at the OneBasin CRC regional hub in Mildura, Victoria.

About the OneBasin CRC

Since its inception in mid-2022, the **One Basin Cooperative Research Centre** has brought together 85 partners across the Murray–Darling Basin.

Our purpose is to work together to grow value from water in a changing world.

From Queensland to South Australia, we are finding practical solutions to complex challenges, training the next generation of scientists, and nurturing regional communities.

Our collective goal is a productive, resilient and sustainable Murray–Darling Basin.

1. Key Responsibilities

1.1 RESEARCH – ADVANCEMENT OF DISCIPLINE

- ▶ Undertake applied research and analysis in a multidisciplinary team, including but not limited to modelling of natural and human environmental systems under a variable and changing climate and participatory approaches to adaptation planning.
- ▶ Assist with project management

- ▶ Participate in preparation of manuscripts for publication in peer-reviewed journals;
- ▶ Liaise effectively with program partners and other collaborators;
- ▶ Assist other researchers in carrying out analysis in order to work as a team and further the department's research output;
- ▶ Contribute to the development of the Department's and the School's strong research program in Hydrology and Water Resources management.

1.2 TEACHING AND LEARNING

- ▶ Potential occasional contributions to the Teaching Program.

1.3 ENGAGEMENT

- ▶ Attend and contribute actively to lab group meetings;
- ▶ Active participation in some outreach activities relating to research and scholarship;
- ▶ Effective liaison with external networks to foster collaborative partnerships;
- ▶ Present research results at local and national forums;
- ▶ Attend and actively participate in departmental seminars, meetings and/or committee memberships.

1.4 SERVICE AND LEADERSHIP

- ▶ Active participation in the communication and dissemination of research;
- ▶ Identify sources of funding to support individual or collaborative projects, relating to teaching, research and engagement practice in the discipline.

1.5 OTHER

- ▶ Perform other tasks reasonably requested by your supervisor or the Head of the Department;
- ▶ This position requires the incumbent to hold a current and valid Working with Children Check.

2. Selection Criteria

2.1 ESSENTIAL

- ▶ Hold a PhD in a discipline of hydrology, environmental engineering, environmental science or a related discipline
- ▶ Excellent organisational skills with demonstrated ability for project management, managing deadlines and prioritising tasks
- ▶ Strong interpersonal and communication skills for liaising and managing collaborations across a diverse set of stakeholders
- ▶ Demonstrated experience in numerical modelling or data analysis (quantitative and/or qualitative, social scientists with experience in participatory processes and multidisciplinary teams also encouraged to apply)

- ▶ Knowledge of climate variability and change, climate risk modelling, hydrological and river systems modelling, climate adaptation frameworks or modelling complex economic-environmental-social system interactions
- ▶ Experience in working as part of large, dynamic multi-disciplinary teams;
- ▶ A publication record in scholarly journals relative to opportunity;
- ▶ Excellent written and verbal communication skills with proven ability (existing publication record) to produce high-quality scientific publications and presentations, as well as research and consulting reports.
- ▶ Commitment to the principles of equity, diversity and inclusion.

3. Equal Opportunity, Diversity and Inclusion

The University is an equal opportunity employer and is committed to providing a workplace free from all forms of unlawful discrimination, harassment, bullying, vilification and victimisation. The University makes decisions on employment, promotion, and reward on the basis of merit.

The University is committed to all aspects of equal opportunity, diversity and inclusion in the workplace and to providing all staff, students, contractors, honorary appointees, volunteers and visitors with a safe, respectful and rewarding environment free from all forms of unlawful discrimination, harassment, vilification and victimisation. This commitment is set out in the Advancing Melbourne strategy that addresses diversity and inclusion, equal employment opportunity, discrimination, sexual harassment, bullying and appropriate workplace behaviour. All staff are required to comply with all University policies.

The University values diversity because we recognise that the differences in our people's age, race, ethnicity, culture, gender, nationality, sexual orientation, physical ability and background bring richness to our work environment. Consequently, the People Strategy sets out the strategic aim to drive diversity and inclusion across the University to create an environment where the compounding benefits of a diverse workforce are recognised as vital in our continuous desire to strive for excellence and reach the targets of Advancing Melbourne.

4. Occupational Health and Safety (OHS)

All staff are required to take reasonable care for their own health and safety and that of other personnel who may be affected by their conduct.

OHS responsibilities applicable to positions are published at:

<https://safety.unimelb.edu.au/people/community/responsibilities-of-personnel>

These include general staff responsibilities and those additional responsibilities that apply for Managers and Supervisors and other Personnel.

5. Other Information

5.1 DEPARTMENT OF INFRASTRUCTURE ENGINEERING

Combining civil engineering, environmental engineering and geomatics in one department creates a broad scope for our research and engineering education. Our focus is to solve infrastructure problems in a sustainable way.

The Departmental philosophy is to attract and retain the highest quality staff available in order to maintain a vigorous research effort. Our strategic plan is to address the most urgent contemporary problems of our rapidly developing industrial society, with investigations into the engineered and natural environment.

www.ie.unimelb.edu.au

5.2 FACULTY OF ENGINEERING AND INFORMATION TECHNOLOGY

The Faculty of Engineering and Information Technology (FEIT) has been the leading Australian provider of engineering and IT education and research for over 150 years. We are a multidisciplinary School organised into three key areas; Computing and Information Systems (CIS), Chemical and Biomedical Engineering (CBE) and Electrical, Mechanical and Infrastructure Engineering (EMI). FEIT continues to attract top staff and students with a global reputation and has a commitment to knowledge for the betterment of society.

FEIT has never been better positioned as a global leader, anchored in the dynamic Asia Pacific region, creating and curating knowledge to address some of the world's biggest challenges. Through our students and our relationships with communities, we can not only respond to society's needs but anticipate and create engineering and IT solutions for the future.

<https://eng.unimelb.edu.au/>

<https://eng.unimelb.edu.au/about/join-feit>

Our ten-year strategy, FEIT 2025, is our commitment to bring to life the University-wide strategy Advancing Melbourne and reinforce the University of Melbourne's position as one of the best in the world.

To achieve our ambitions, we will continue to build new infrastructure to enable our teaching, research and engagement; we continue to recruit outstanding people from around the world; and we continue to attract high-quality students from across the globe who are at the heart of our enterprise.

<https://eng.unimelb.edu.au/about/feit-2025>

5.3 THE UNIVERSITY OF MELBOURNE

Established in 1853, the University of Melbourne is a leading international university with a tradition of excellence in teaching and research. The main campus in Parkville is recognised as the hub of Australia's premier knowledge precinct comprising eight hospitals, many leading research institutes and a wide-range of knowledge-based industries. With outstanding performance in international rankings, the University is at the forefront of higher education in the Asia-Pacific region and the world.

The University employs people of outstanding calibre and offers a unique environment where staff are valued and rewarded.

Further information about working at The University of Melbourne is available at

<http://about.unimelb.edu.au/careers>

5.4 ADVANCING MELBOURNE

The University's strategic direction is grounded in its purpose. While its expression may change, our purpose is enduring: to benefit society through the transformative impact of education and research. Together, the vision and purpose inform the focus and scale of our aspirations for the coming decade.

Advancing Melbourne reflects the University's commitment to its people, its place, and its partners. Our aspiration for 2030 is to be known as a world-leading and globally connected Australian university, with our students at the heart of everything we do.

- ▶ We will offer students a distinctive and outstanding education and experience, preparing them for success as leaders, change agents and global citizens.
- ▶ We will be recognised locally and globally for our leadership on matters of national and global importance, through outstanding research and scholarship and a commitment to collaboration.
- ▶ We will be empowered by our sense of place and connections with communities. We will take opportunities to advance both the University and the City of Melbourne in close collaboration and synergy.
- ▶ We will deliver this through building a brilliant, diverse and vibrant University community, with strong connections to those we serve.

The means for achieving these goals include the development of the University of Melbourne's academic and professional staff and the capabilities needed to support a modern, world-class university. Those means require a commitment to ongoing financial sustainability and an ambitious infrastructure program which will reshape the campus and our contribution to the communities we engage with. This strategy, and the priorities proposed, is centred around five intersecting themes; place, community, education, discovery and global.

5.5 GOVERNANCE

The Vice Chancellor is the Chief Executive Officer of the University and responsible to Council for the good management of the University.

Comprehensive information about the University of Melbourne and its governance structure is available at <https://about.unimelb.edu.au/strategy/governance>