



THE UNIVERSITY OF
MELBOURNE

Style Definition: Body Text

POSITION DESCRIPTION

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

Research Fellow in Climate Change and Water Resource Modelling

POSITION NO	0061308
CLASSIFICATION	Level B
SALARY RANGE	\$114,645 to \$136,136 p.a.
SUPERANNUATION	Employer contribution of 17%
WORKING HOURS	Full time (1.0 FTE)
BASIS OF EMPLOYMENT	Fixed term for 12 months 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

This role will support a number of ongoing research projects with the hydrology and water resources group. These include:

- Shifting water availability and demands – the implications of climate change in the southern Murray Darling Basin.
- Hydro-economic modelling of the southern Murray Darling Basin

This is a technical role supporting research in hydrology and decision making under a variable and changing climate. You will work as part of an internationally recognised team of researchers, undertaking analysis and modelling in support of an existing research agenda.

1. Key Responsibilities

1.1 RESEARCH – ADVANCEMENT OF DISCIPLINE

- ▶ Undertake hydrological analysis and modelling contributing your team's research agenda, including but not limited to large scale modelling of natural and human environmental systems under a variable and changing climate;
- ▶ Assist in the development of water resource models at multi-basin scales to support planning under climate change;
- ▶ Write technical reports on the outputs of the research conducted, and maintain accurate and detailed records of all analysis conducted;
- ▶ 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 Environmental Hydrology and Water Resources.

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

- ▶ A PhD in Environmental Engineering, or closely related discipline, or industry experience in a related discipline;
- ▶ Ability to perform independent research under supervision and a commitment to interdisciplinary research;
- ▶ Demonstrated ability in analysing data, problem solving and maintaining accurate research records;
- ▶ Computer skills including using and adapting scientific computer code. Familiarity with coding software such as Python, R or Matlab.
- ▶ Ability to prioritise tasks to achieve objectives within timelines;
- ▶ Demonstrated capacity to communicate in both oral and written form, technical concepts to both technical and non-technical audiences;
- ▶ An interest in bottom up methodologies to link water resource modelling under climate change to decision making;
- ▶ Excellent interpersonal skills, including an ability to interact with internal and external stakeholders (academic, administrative and support staff) in a courteous and effective manner;
- ▶ Demonstrated project management skills, including organisational and time management skills.

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>