



THE UNIVERSITY OF
MELBOURNE

POSITION DESCRIPTION

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

Lecturer/Senior Lecturer in Hydrology and Water Resources

POSITION NO	0057456
CLASSIFICATION	Lecturer - Level B, or Senior Lecturer - Level C Appointment will be commensurate with experience and qualifications
SALARY	\$110,236 - \$130,900 (Level B, pro rata for part-time) \$135,032 - \$155,698 (Level C, pro rata for part-time) (Superannuable loading maybe applicable)
SUPERANNUATION	Employer contribution of 17%
WORKING HOURS	Full-time 1.0 FTE
BASIS OF EMPLOYMENT	Continuing Applications for part-time or other flexible working arrangements will be welcomed and will be fully considered subject to meeting the inherent requirements of the position
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
CONTACT FOR ENQUIRIES ONLY	Associate Professor Dongryeol Ryu Tel +61 3 8344 7115 Email dryu@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 acknowledges the Traditional Owners of country throughout Australia. The University recognises the unique place held by Aboriginal and Torres Strait Islander peoples as the original custodians of country and their continued connection to the land, waterways, songlines and culture. The University respects all Aboriginal and Torres Strait Islander People and warmly embrace those students, staff, Elders and collaborators who identify as First Nations.

Commitment to Diversity and Inclusion

The Faculty of Engineering and Information Technology (FEIT) is committed to creating a diverse and inclusive environment that welcomes and values all people. We recognise that diversity is essential in contributing to the success of FEIT. Women, Aboriginal and Torres Strait Islanders, the LGBTIQ+ community, people living with disability and those from a culturally and linguistically diverse background, are strongly encouraged to apply.

Position Summary

As the successful candidate, you will be expected to play a leading role in contributing to the teaching and research program in the Department of Infrastructure Engineering, and to enhance interdisciplinary research within the Faculty and the University in collaboration with external organisations. You will, independently and as a member of the team, work on all four pillars of an academic career by pursuing internationally leading research, teaching and teaching innovation, engagement with industry and other partner institutions, and taking on leadership roles within the University.

The successful candidate will work as a member of the Environmental Hydrology and Water Resources (EHWR) Group, which is a team of internationally recognised experts in hydrology, hydroclimate, water resources and remote sensing. We expect that the candidate strengthens the group's research in spatially distributed hydrological modelling at regional to global scale, water resources issues under changing climate, terrestrial hydrological modelling, socio-hydrology, hydrodynamic modelling, or groundwater hydrology.

1. Key Responsibilities

1.1 TEACHING AND LEARNING

- ▶ Teach subjects to a standard that delivers an enriched learning experience for students in the Master of Environmental Engineering and other programs, as directed by the Head of Department or Deputy Head;
- ▶ Conduct lectures and tutorials at undergraduate and postgraduate level including engagement in teaching innovation and improvement;
- ▶ Develop and innovate high quality subject materials and subject delivery, including the use of web resources as appropriate;
- ▶ Preparation of project work to support student learning;
- ▶ Performing marking and assessment duties and be responsible for supervision of project marking in subjects as lecturer-in-charge;
- ▶ Provide adequate access for students, and availability for effective student consultation that fosters their learning;
- ▶ Being proactive in the development of subject materials and delivery, including the use of web resources as appropriate;
- ▶ Act as Subject Coordinator with responsibility for the design, development, coordinated delivery and ongoing improvement of that subject and keep the Teaching Liaison Coordinator informed of changes to personnel and/or requirements;
- ▶ Supervise undergraduate, graduate or postgraduate students engaged in coursework or smaller research projects;
- ▶ Contribute to the continued improvement of teaching quality through engagement with the water and environmental engineering industry regarding teaching practices and the ongoing review of subject and assessment materials to enhance student learning.

1.2 RESEARCH AND RESEARCH TRAINING

- ▶ Provide a significant degree of scholarly research initiative and collaboration in the discipline of Environmental Hydrology and Water Resources;
- ▶ Exercise leadership in scholarly research, in conjunction with other colleagues;

- ▶ Presentation of research workshops and seminars within the department/school;
- ▶ Publishing of papers in reputable international journals and conferences;
- ▶ Significant role in research projects including, where appropriate, leadership of a research team;
- ▶ Attainment of external research grant income both from national competitive grants as well as from industry engagement;
- ▶ Supervision of PhD, research masters, and coursework research projects;
- ▶ Building a national reputation within this discipline
- ▶ Liaise effectively with collaborators from a variety of internal and external stakeholders;
- ▶ Present conference papers at reputed refereed international conferences.

1.3 ENGAGEMENT

- ▶ Build and foster partnerships with industry, government, collaborators at other Universities and other stakeholders that contribute to the engagement of teaching and research in the wider community engagement;
- ▶ Actively participate in professional activities including consulting, workshops, meetings of professional societies and short courses for external participants;

1.4 LEADERSHIP AND SERVICE

- ▶ Take a leading role in the department/school to actively foster and participate in industry liaison activities consistent with the Faculty business plan;
- ▶ Participation in department/faculty activities such as student events and school visits;
- ▶ Drive and lead departmental/faculty committees and/or projects as required;
- ▶ Contribute to the scholarly practices in the professional community through active involvement which could include liaison with peak professional organisations for the benefit of students and FEIT.

1.5 OTHER

- ▶ Occupational Health and Safety (OH&S) and Environmental Health and Safety (EH&S) responsibilities as outlined in Section 4
- ▶ Perform other tasks as requested by the supervisor or the Head of the Department.
- ▶ Create ethics applications and report to the ethics committees

2. Selection Criteria

2.1 ESSENTIAL

- ▶ A PhD in Hydrology, Water Resources, Earth System Sciences or relevant discipline;
- ▶ Evidence of a leadership role with excellent ability to manage collaborative projects and research activities, involving the management of personnel, timelines and budgets, and relationships with various stakeholders;

- ▶ A research track record in hydrological/water resources research or topics of global significance directly relevant to water through evidence such as publications in leading journals and conferences
- ▶ Capacity to teach effectively and develop educational programs and methods across a range of subjects, in particular in the field of hydrology and water resources, including the capacity to develop and deliver seminars and lectures and contribute to other teaching activities;
- ▶ Excellent oral and written communication skills, including the ability to interact with University staff at all levels and to build networks with industry and other researchers, both local and international;

2.2 ADDITIONAL CRITERIA FOR APPOINTMENT AT LEVEL C

- ▶ Evidence of well-established and excellent quality research track record and leadership in hydrology and water resources;
- ▶ Building an international reputation, evidenced through high-impact peer-reviewed and refereed journals, and invitations to speak at national and international meetings and/or leadership of nationally or internationally significant research projects
- ▶ Demonstrated leadership and service to national and international professional bodies and to professional journals;
- ▶ Capacity to develop an international funding profile.

2.3 DESIRABLE

- ▶ Evidence of leadership in engagement with the water or related industry;
- ▶ Capacity to develop an industry-based funding profile and bridge the industry–academia gap;
- ▶ Experience in curriculum development and implementation at undergraduate and postgraduate level that will maintain the Department's/Faculty programmes at the highest international standards;

2.4 SPECIAL REQUIREMENTS OF THE ROLE

- ▶ This position requires the incumbent to hold a current and valid Working with Children Check.
- ▶ Occasional work out of ordinary hours, travel, etc.

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 SCHOOL OF ELECTRICAL, MECHANICAL AND INFRASTRUCTURE ENGINEERING

The School of Electrical, Mechanical and Infrastructure Engineering undertakes teaching and research across a range of disciplines that are internationally recognised for their contribution to fundamental research. It has a number of well-established industry linkages and international partnerships. It is building a vibrant profile of interdisciplinary research, working with industry with an aim to contribute to society. It offers a comprehensive range of accredited Masters of Engineering and Master of Information Technology programs taught through the Electrical, Mechanical and Infrastructure departments as well as professional Masters programs. It has a substantial cohort of research higher degree students. A major focus of the school is to attract and retain outstanding and internationally recognised academic staff. The School is committed through strategy, culture and mentorship to increasing the number of female engineers and scientists on its staff.

5.2 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

5.3 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 School's 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>

5.4 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>

5.5 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.

5.6 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>