MONASH University

Position description

Lecturer (Green Water Treatment Engineering)

Department/Unit	Department of Civil Engineering
Faculty/Division	Faculty of Engineering
Classification	Level B
Work location	Clayton campus
Date document created or updated	March 2017

Organisational context

Monash is a university of transformation, progress and optimism. Our people are our most valued asset, with our academics among the best in the world and our professional staff revolutionising the way we operate as an organisation. For more information about our University and our exciting future, please visit www.monash.edu

The **Faculty of Engineering** is one of the top in Australia, renowned worldwide for the quality and calibre of our teaching, research and graduates. We offer a comprehensive range of undergraduate, graduate, postgraduate and higher degree by research programs in a wide range of engineering disciplines. Our research activities provide a platform for establishing a thriving educational enterprise and our staff are committed to creating a dynamic learning environment. The research activities range from fundamental studies to research with a strong applications orientation.

The faculty has five departments operating from the Clayton campus of Monash University –Chemical Engineering, Civil Engineering, Electrical and Computer Systems Engineering, Materials Science and Engineering, and Mechanical and Aerospace Engineering. The School of Engineering operates from the Malaysian campus. In addition, there are 15 research institutes and centres with researchers involved in more than 12 cross institutional centres focusing on key technologies. Monash Engineering also has strong links with other research organisations, including CSIRO and DSTO.

A member of the influential Group of Eight (Go8) research universities, the Faculty of Engineering is involved in extensive research activities. To support this activity and the teaching program the faculty has well-equipped laboratories and many items of large infrastructure, from advanced imaging and visualisation facilities and electron microscopes, to the largest strong floor and wind tunnel in the southern hemisphere. To learn more about the Faculty of Engineering, please visit our website.

The **Department of Civil Engineering** at Monash University enjoys an international reputation for education and research in the six major disciplines of Geotechnical Engineering, Structural Engineering, Transport Engineering, Water Engineering, Environmental Engineering and Resources Engineering. It has 35 academic staff, 27 professional staff, 18 research staff, and approximately 160 postgraduate students working across these disciplines with undergraduate numbers of approximately 650 across years 2 to 4. The Department has considerable physical facilities supporting its research and teaching activities, and is constantly evaluating and upgrading these facilities in order to meet the level appropriate to the contemporary practice of engineering. More information about the department and our research can be found through our website.

The department has three main research themes including 7 areas of research focus (see http://www.eng.monash.edu/civil/research/). The Department is also central to the Monash Infrastructure (MI)

research institute that started in early 2016; MI has a very strong water theme. The Department's water group is one of the leading water research groups in Australia and internationally.

The Department is looking to build on existing research strengths particularly in the areas of urban water management. This includes research in the areas of green water treatment technologies, (such as bioretention systems, raingardens, wetlands, swales, green walls, green roofs etc.). We are currently investing $5M into a new facility to support experimentally based research in this area.

Position purpose

A Level B academic is required to undertake academic duties that include lecturing in, and some administration of, the undergraduate and postgraduate teaching programs; and supervision of postgraduate research students. The successful applicant is expected to collaborate with the urban water group on research related to urban water infrastructure, with an experimental based research focus on the area of green water-treatment technologies.

- **Reporting Line**: The position reports to the Head of Department, Professor Jeff Walker.
- **Supervisory responsibilities:** Postgraduate/PhD research students
- **Financial delegation and/or budget responsibilities**: Not applicable

Key responsibilities

The successful candidate will work within the Department of Civil Engineering and will have strong teaching, communication and research skills in the area of urban water. The successful candidate's research area will be experimentally focused and aligned with bioretention systems, raingardens, wetlands, swales, green walls and/or green roofs.

Specific duties required of a Level B academic may include:

1. The conduct of research
2. The conduct of tutorials, practical classes, demonstrations, workshops, student field excursions, clinical sessions and studio sessions
3. Development of course material with appropriate advice from and support of more senior staff
4. Subject coordination and the initiation and development of subject material including preparation and delivery of lectures and seminars
5. Consultation with students including marking and assessment of coursework and guidance on areas of development
6. Supervision of the program of study of honours students and of postgraduate students engaged in course work
7. Involvement in professional activity
8. Broad administrative functions; the majority of which are connected with the subjects in which the academic teaches
9. Attendance at departmental, school and/or faculty meetings and a major role in planning or committee work

Key selection criteria

Essential criteria

1. A research doctorate in Civil Engineering, Environmental Engineering, Agricultural Engineering or closely related field
2. Demonstrated expertise, track record and experience of undertaking outstanding research in urban water management and/or green water treatment technologies

3. A good publication record in high-quality refereed journals or equivalent textbooks or teaching resources
4. Demonstrated potential to successfully supervise postgraduate research students
5. Demonstrated ability to effectively develop and deliver stimulating teaching materials at all levels
6. Demonstrated excellent written and verbal communication skills
7. Demonstrated ability to work effectively both independently and in a collegiate manner in multidisciplinary teams, and to make a contribution to research, scholarship and teaching
8. Demonstrated commitment to experimental based research

Other job related information

- Block teaching for our overseas education program may be required from time to time

Legal compliance

Ensure you are aware of and adhere to legislation and University policy relevant to the duties undertaken, including: Equal Employment Opportunity, supporting equity and fairness; Occupational Health and Safety, supporting a safe workplace; Conflict of Interest (including Conflict of Interest in Research); Paid Outside Work; Privacy; Research Conduct; and Staff/Student Relationships.