

Position description

Associate Professor

Department/Unit	Civil Engineering
Faculty/Division	Faculty of Engineering
Classification (salary rates)	Level D
Work location	Clayton campus
Date document created or updated	24 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 best 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 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 wind tunnel in the southern hemisphere. To learn more about the Faculty of Engineering, please visit our website: www.eng.monash.edu.au

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. 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. For more information about us and the work we do, please visit our website: www.eng.monash.edu.au/civil

The **Monash Institute of Transport Studies** operates within the Civil Engineering department at Monash University. Monash ITS is the ARC Key Centre in Transport Management in Australia and is internationally recognised for its transport research and education programs. Monash ITS has five academic staff and three research fellows based on the Clayton Campus; and two other academic staff based at the Monash-SEU Joint Graduate School located in Suzhou, China. The group is also expanding with transport staff located in civil engineering at the Monash Malaysia campus in Kuala Lumpur. For further information about the activities of Monash ITS, please visit our website: www.eng.monash.edu.au/civil/research/centres/its/research

Monash ITS is focussing its research into two thematic areas:

- Multimodal urban transport system monitoring, modelling and optimisation: utilising advanced mathematical, optimisation and data mining techniques to study large transport networks and land use characteristics of smart cities
- Enhancing transport system sustainability, safety and resilience: understanding and influencing human behaviour and the social, environmental and economic impacts of transport on our cities

Position purpose

A Level D academic is expected to make a significant contribution to all activities of the organisational unit or interdisciplinary area and play a significant role within their profession or discipline. Academics at this level may be appointed in recognition of distinction in their disciplinary area.

The Associate Professor is required to undertake academic duties that include lecturing in, and some administration of, the undergraduate and postgraduate teaching programs, and supervision of post-graduate research students. The successful applicant is also expected to be involved in and/or lead research programs in a specialist area that is closely aligned with a core strength and/or strategic area of the department, including the research themes mentioned above of Multimodal urban transport and transport sustainability. Expertise in the area of traffic engineering or traffic flow theory would complement the capabilities of the existing transport staff in the group.

Academics at this level may be appointed in recognition of distinction in their disciplinary area

Reporting Line: The position reports into the Head of Department, Civil Engineering, under broad direction, working with a considerable degree of autonomy

Supervisory responsibilities: Not applicable

Financial delegation and/or budget responsibilities: Not applicable

Key responsibilities

Specific duties required of a Level D academic will include:

1. The conduct of tutorials, practical classes, demonstrations, workshops, student field excursions, clinical sessions and studio sessions
2. The initiation, development, leadership and responsibility of developing course material and curriculum/programs of study in line with best practice methodologies
3. Course coordination and course content and delivery enhancement, including the preparation and delivery of lectures and seminars, and the design, implementation and review of educational innovations
4. Consultation with students including marking and assessment of coursework and guidance on areas of development
5. Supervision of the program of study of honours students and of postgraduate students engaged in course work, and supervision, support and guidance to major honours or postgraduate research projects
6. The conduct of research and the undertaking of a significant role in research projects including, where appropriate, leadership of research teams
7. Significant contributions to the profession and/or discipline
8. Involvement in professional activities such as networking and industry events to stay abreast of academic and industry changes and developments and how these can be applied at Monash
9. Attend and contribute to departmental, school and/or faculty meetings and play a major role in planning or committee work

10. Broad administrative functions; the majority of which are connected with the subjects in which the academic teaches

Key selection criteria

Education/Qualifications:

1. The appointee will possess:
 - an undergraduate degree in Civil Engineering or a closely related discipline, and a doctoral degree in Transport Engineering or a related field
 - a record of demonstrable scholarly and professional achievement in the relevant discipline area and outstanding contribution to teaching and/or research and/or the profession

Knowledge and skills:

2. Demonstrated experience and proven ability in undertaking outstanding research and taking a lead role in departmental research, scholarship and teaching matters
3. Demonstrated publication record in high-quality refereed journals, conferences, equivalent textbooks or teaching resources
4. Proven record of writing grant proposals and success in obtaining significant external grants for research
5. Demonstrated record of successfully supervising postgraduate research students and honours students
6. Demonstrated experience in leading the development and delivery of high quality teaching and curriculum, at the undergraduate and postgraduate level, with positive student feedback
7. High-level written and verbal communication skills and proven ability to establish a good working relationship with colleagues and students, and to develop and maintain strong professional links with relevant industry and the community
8. Proven ability to plan, organise and achieve work targets, sometimes in demanding circumstances, and work harmoniously and constructively with academic colleagues and other University staff
9. Proven contributions to administration, departmental initiatives and process improvement initiatives with a focus of quality and innovation

Other job related information

- Travel (e.g. to other campuses of the University) may be required
- Block teaching at one of our international campuses may be required from time to time
- There may be peak periods of work during which the taking of leave may be restricted

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