



Position description

Lecturer/Senior Lecturer Transport Engineering

Position number	50003602
Department/Unit	Department of Civil Engineering
Faculty/Division	Faculty of Engineering
Classification (salary rates)	Level B (Lecturer)/Level C (Senior Lecturer)
Employment type	Full-time, continuing
Work location	Clayton campus
Date document created or updated	15 April 2013

Position purpose

The Lecturer/Senior Lecturer in Transport Engineering 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 contribute to the major research strength/themes of Monash University's Institute of Transport Studies (ITS). The ultimate focus of the activities to be undertaken by the successful applicant is to refine and enhance the knowledge of engineering and science.

- **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:** Nil

Organisational context

Monash University is an energetic and dynamic university committed to quality education, outstanding research and international engagement. A member of Australia's Group of Eight research intensive universities, it seeks to improve the human condition and is committed to a sustainable future. Monash has six campuses in Victoria, a campus in Malaysia, a campus in South Africa, a centre in Prato, Italy, and numerous international partnerships and cooperative ventures. Monash has over 63,000 equivalent full-time students spread across its Australian and off-shore campuses, and over 7,200 full time equivalent staff. Almost 3,000 of these staff members are academic staff.

The Faculty of Engineering is one of the largest in Australia, renowned worldwide for the quality of our teaching and research and the calibre of its graduates.

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 and one School operating from the Clayton campus of Monash University – Biological Engineering, 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.

Monash Engineering offers a comprehensive range of education programs – bachelor degrees, graduate and postgraduate certificates, master degrees by coursework, masters by research and PhD in a wide range of disciplines including: aerospace, biological, chemical, civil, electrical and computer systems, environmental, materials, mechanical, mechatronics and telecommunications engineering.

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.

Monash Engineering currently has around 400 staff, 300 higher-degree research students and more than 4000 coursework students enrolled in Australia. The budget for the Faculty is approximately \$120M.

The Department of Civil Engineering at Monash University enjoys an international reputation for education and research in the four major disciplines of Geotechnical Engineering, Structural Engineering, Transport Engineering, and Water Engineering. It has 30 academic staff, 15 administrative and professional staff, 25 research staff, and 100 postgraduate students working across these disciplines with undergraduate numbers of 800. Details of the Department can be found <http://www.eng.monash.edu.au/civil/>

The Institute of Transport Studies of Civil Engineering department at Monash is the only ARC key centre in transport management in Australia (with two nodes, Monash University and The University of Sydney), and one of the biggest transport groups in Australia with internationally recognised expertise in the thematic areas of (see <http://eng.monash.edu.au/civil/research/centres/transport/>)

1. Multimodal urban transportation system planning, modelling and optimisation;
2. Transport system sustainability, resilience and human interface.

The Institute of Transport Studies is eager to grow its expertise in the specific areas of landuse and transport modelling, and freight and logistics modelling.

The Department has considerable physical facilities supporting its research and teaching activities. It is constantly evaluating these facilities in order to meet the level appropriate to the contemporary practice of engineering. The Department has a unique experimental transport laboratory, including a laser-based instrumented vehicle, driving simulator, a suite of transport modelling and optimisation software, traffic video data acquisition and cleansing facility, and high throughput / cloud computing capability.

Key result areas and responsibility

The incumbent is expected to make significant contributions to the teaching effort of the University and to carry out activities to maintain and develop his/her scholarship, research and/or professional activities relevant to the profession or discipline. He/she will work within the Transport Group in the Department of Civil Engineering and will have strong teaching, communication and research skills in one or more of the above-mentioned areas.

Specific duties required of a Level B/C academic may include:

- the conduct of tutorials, practical classes, demonstrations, workshops, student field excursions, clinical sessions and studio sessions;
- initiation and development of course material;
- course coordination;
- the preparation and delivery of lectures and seminars;
- marking and assessment;
- supervision of major honours or postgraduate research projects;
- supervision of postgraduate students engaged in course work;
- the conduct of original research, including applying for funding and writing of papers;
- significant role in research projects including, where appropriate, leadership of a research team;
- involvement in professional activity;
- consultation with students;
- broad administrative functions;
- attendance at departmental, school and/or faculty meetings and a major role in planning or committee work;
- carry out any other duties as deemed appropriate by the Head of Department.

Key selection criteria

At Level B

Essential

1. Bachelor's degree in the field of civil engineering;
2. Research doctorate in the field of transport engineering;
3. Demonstrated record of undertaking research;
4. Demonstrated record of publishing in peer reviewed journals and conferences;
5. Demonstrated experience in delivering high quality teaching in subjects related to transportation systems engineering;
6. Demonstrated excellent written and verbal communication skills; and
7. Demonstrated ability to take an active role in departmental research, scholarship and teaching matters.

Desirable

8. Public or private sector experience in the transport industry
9. Demonstrated record of obtaining grants for research;
10. Demonstrated record of successfully supervising postgraduate research students.

At Level C

Essential

1. Bachelor's degree in the field of civil engineering;
2. Research doctorate in the field of transport engineering;
3. Demonstrated record of undertaking outstanding research;
4. Demonstrated record of publishing in high impact journals and conferences;
5. Demonstrated record of obtaining significant external grants for research;
6. Demonstrated record of successfully supervising postgraduate research students;
7. Demonstrated experience in leading the development and delivery of high quality teaching in subjects related to transportation systems engineering, particularly at a postgraduate level, with positive student feedback;
8. Demonstrated excellent written and verbal communication skills; and
9. Demonstrated ability to take a lead role in departmental research, scholarship and teaching matters.

Desirable

10. Public or private sector experience at a senior level in the transport industry

Other job-related information

- Travel to other campuses of the University 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
- Staff/Student Relationships

Enquiries

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