MONASH University

Position description

Lecturer, Internet of Things and Smart Infrastructure Systems

Department/Unit	Electrical and Computer Systems Engineering
Faculty/Division	Faculty of Engineering
Classification	Level B
Work location	Clayton campus
Date document created or updated	29 May 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 largest 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 To learn more about the Faculty of Engineering, please visit our website.

The **Department of Electrical and Computer Systems Engineering** aims to provide high quality programs for undergraduate and research students as well as undertaking and publishing high quality research. We offer internationally recognised undergraduate and research programs in telecommunications, electronics, robotics, biomedical engineering and electrical power systems. We maintain strong links with engineering professionals to ensure our programs remain at the leading edge of professional practice. We have a vibrant research culture, with major research areas in communications and RF identification, intelligent robotics, biomedical engineering and power electronics and energy. For more information about us, please visit our website.

Position purpose

This position will be responsible for developing innovative applications in the area of Internet of Things for Smart Infrastructure Systems. Sensor technology with applications in designing scalable data analytic and control frameworks and market mechanisms for enabling sustainability and resiliency in societal infrastructure systems (e.g., smart cities, smart grid, transportation systems, smart homes).

The appointable candidate would ideally have some knowledge and experience in the following specific areas:

- Wireless sensor systems
- Embedded Systems Design
- Circuit/sensor/interface aspects of IoT
- RF integrated circuit design
- Data mining

A Level B academic is also expected to make significant contributions to the teaching effort of a department, school, faculty or other organisational unit or an interdisciplinary area. An academic at this level is expected to carry out activities to maintain and develop her/his scholarly, research and/or professional activities relevant to the profession or discipline. The incumbent to this position would be expected to complement and extend the existing strength of Electrical and Computer Systems Engineering on Optical Communications, Wireless Communications, and IoT.

Reporting Line: The position reports to the Head of Department

Supervisory responsibilities: This position may supervise Postgraduate/PhD research students

Financial delegation and/or budget responsibilities: Not applicable

Key responsibilities

Specific duties required of a Level B academic may include:

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

Key selection criteria

Essential criteria

1. A Level B academic shall have qualifications and/or experience recognised by the university as appropriate for the relevant discipline area. In many cases a position at this level will require a doctoral or masters qualification or equivalent accreditation and standing. In determining experience relative to qualifications, regard is had to teaching experience, experience in research, experience outside tertiary education, creative achievement, professional contributions and/or contributions to technical achievement
2. Possess a high level of interpersonal skills and demonstrated ability to work independently and as part of a team across both the education and service sectors
3. Ability to work positively and cooperatively with students, internal and external teams and agencies
4. Demonstrated strong record of teaching experience in a tertiary environment
5. Demonstrated ability to stimulate, actively engage and educate a given audience
6. Proven ability, commitment and passion for engaging in scholarly and research activities

7. A demonstrated capacity to work in a collegiate manner with other staff in the workplace
8. Demonstrated statistical analysis and manuscript preparation skills; including a solid track record of refereed research publications

Other job related information

- Travel (e.g. to other campuses of the University) may be required
- 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.