Position description

Senior Lecturer, Signal Processing and Machine Learning

Department/Unit	Electrical and Computer Systems Engineering
Faculty/Division	Engineering
Classification (salary rates)	Level C
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 & RF identification, intelligent robotics, biomedical engineering and power electronics & energy. For more information about us, please visit our website.

Position purpose

A Level C academic is 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 also expected to play a major role in scholarship, research and/or professional activities. The Senior Lecturer to this position will demonstrate strong methodical work in signal processing and machine learning with grounding and connections in traditional EE areas (IE, statistical signal processing), have a key interest in machine learning and big data processing with a view to working collaboratively with our electrical and computer systems engineering academics to establish a stronger presence in this (hot) area. The Senior Lecturer to this position will provide a breadth of interest and bring strong foundations as well as the skill of machine learning techniques and Signal Processing expertise.

Reporting Line: The position reports to the Head of Department under broad direction

Supervisory responsibilities: N/A

Financial delegation and/or budget responsibilities: N/A

Key responsibilities

Specific duties required of a Level C academic may include:

1. The conduct of tutorials, practical classes, demonstrations, workshops, student field excursions, clinical sessions and studio sessions
2. Initiation and development of course material
3. Course coordination
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. Significant role in research projects including, where appropriate, leadership of a research team
9. Involvement in professional activity
10. Consultation with students
11. Broad administrative functions
12. Marking and assessment
13. Attendance at departmental, school and/or faculty meetings and a major role in planning or committee work

A Level C academic will normally have advanced qualifications and/or recognised significant experience in the relevant discipline area. A position at this level will normally require a doctoral qualification or equivalent accreditation and standing.

In determining experience relative to qualifications, regard shall be had to teaching experience, experience in research, experience outside tertiary education, creative achievement, professional contributions and/or contributions to technical achievement. In addition, a position at this level will normally require a record of demonstrable scholarly and professional achievement in the relevant discipline area.

Key selection criteria

Essential criteria

Qualifications/Education

1. The incumbent should possess a completion of a PhD in the relevant field of study. A Level C academic will normally have advanced qualifications and/or recognised significant experience in the relevant discipline area. A position at this level will normally require a doctoral qualification or equivalent accreditation and standing

Knowledge and skills:

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
- Possession of a current Victorian driver licence is desirable

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.