



## Position description

### Professor of Electrical and Computer Systems Engineering

|                                  |                                             |
|----------------------------------|---------------------------------------------|
| Department/Unit                  | Electrical and Computer Systems Engineering |
| Faculty                          | Engineering                                 |
| Classification                   | Level E                                     |
| Work location                    | Clayton campus                              |
| Date document created or updated | June 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](http://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 - <http://www.eng.monash.edu.au/>

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 such as biomedical engineering (including the bionic eye project), communications, plasmonics, electronics, nanoptics, photonics and quantum electrodynamics, computing and robotics and signal processing. For more information about us, please visit our website - <http://www.eng.monash.edu.au/ecse/>

#### Position purpose

The Professor of Electrical and Computer Systems Engineering will make a substantial contribution to the running of the department, faculty and University. The appointee will teach and conduct research in the field of power electrical engineering with a focus on power systems. This includes (but is not limited to) the following fields: smart grids and smart meters, power systems design, stability and analysis, large-scale microgrids, distribution systems software, large-scale utility level energy storage, extreme events and grid resiliency, distributed generation and grid integration and reliability in modern power systems. The position is a key role for the research and teaching portfolio and will be expected to provide expertise and knowledge aligned with the objectives and principles of the department.

**Reporting Line:** Head, Department of Electrical and Computer Systems Engineering

**Supervisory responsibilities:** No direct reports however the incumbent will supervise postgraduate/PhD research students

## Key responsibilities

### Research and education

1. Actively engage in his or her specialist research area in line with the department's research strategy, by maintaining a substantial active publications record (high-quality refereed journals) and supervising and mentoring early career researchers and research students
2. Play a significant role in research projects, including providing leadership to research teams
3. Foster research excellence through procuring competitive research grants and working with other staff to develop research links
4. Provide innovative and effective leadership for the expansion of the department's HDR program by attracting high quality HDR students
5. Take a leadership role in the department's research strength, where appropriate
6. Provide strong and committed leadership in teaching and curriculum development
7. Make a distinguished personal contribution to the teaching program in the relevant discipline at undergraduate and graduate levels
8. Monitor the quality of teaching in the relevant discipline and proactively maintain it at a high level
9. Participate in the department's curriculum planning and development processes, academic committees, and relevant examination processes

### Leadership and management

1. Contribute to academic and administrative leadership within the department and participate in the development of policy in the department, faculty, and University
2. Conduct performance management reviews and engage in mentoring academic staff as appropriate
3. Perform administrative and coordinator duties that are necessary for the effective operation of the programs
4. Actively participate in the strategic development and administration of the department; and represent the department's interests, views and needs in the broader faculty and University contexts

### External relationships

1. Strengthen links with relevant faculties and departments/schools within the University
2. Appropriate liaison with campus and faculty administrative staff
3. Develop and maintain strong links with the community
4. Maintain links and make a significant contribution to the profession and external agencies both nationally and internationally
5. Actively contribute to partnering with industry and diversifying the funding base

## Key selection criteria

### Education/Qualifications

1. PhD in Electrical Engineering or similar discipline

### Knowledge and Skills

2. Evidence of outstanding scholarly activity of an international standard in electrical power engineering and a demonstrated ongoing commitment to one or more programs of research
3. Demonstrated ability to generate research income, including from both traditional and more innovative sources of research funding
4. Record of successful supervision of postgraduate research students and the ability to make a significant contribution to postgraduate training programs in electrical power engineering
5. Proven excellence in teaching (at both undergraduate and postgraduate levels)
6. Highly developed skills of leadership, networking and management
7. Willingness and capacity to make a substantial contribution to all activities of the department, including administration and planning

8. Proven professional leadership qualities and capacity for executive administrative responsibilities
9. Very high-level communication skills and ability to liaise well with other academics
10. Evidence of sustained relationships with industry, business, government agencies and professional bodies
11. A vision for the future needs and development of electrical power engineering within Australia and internationally, from research and educational perspectives
12. Evidence of ability in, and commitment to, the promotion of electrical power engineering as a discipline to potential students and the wider community

## **Other job related information**

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

## **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