



# Position Description

<b>College/Division:</b>	College of Engineering & Computer Science
<b>School/Centre:</b>	Research School of Electrical, Energy and Materials Engineering
<b>Department/Unit:</b>	
<b>Position Title:</b>	Fellow
<b>Classification:</b>	Academic Level C
<b>Position No:</b>	
<b>Responsible to:</b>	Director, Research School of Electrical, Energy and Materials Engineering

## PURPOSE STATEMENT:

The ANU College of Engineering and Computer Science is dedicated to contributing to The Australian National University's reputation for excellence in research and research-led education. The College is at the leading edge within numerous fields, including logic, algorithms and data, signal processing, artificial intelligence, computer vision and robotics, computational mechanics, materials, fabrication, big software systems, renewable energy, networked systems and quantum cybernetics.

The Research School of Electrical, Energy and Materials Engineering brings together the best and brightest researchers, scholars and fosters a vibrant culture that prepares our students for a career in a field central to progress in nearly all aspects of life in the 21<sup>st</sup> century.

The purpose of this appointment is to

- Strengthen the Research School of Electrical, Energy and Materials Engineering as an internationally centre of excellence in Quantum, Robust and Stochastic Control Theory; and
- Contribute to the objectives of externally funded projects

## KEY ACCOUNTABILITY AREAS:

### Position Dimension & Relationships:

The position is located within the Research School of Electrical, Energy and Materials Engineering, made up of high performing academic and professional staff, students and visitors sharing a deep commitment to transforming the future of engineering for the next generation. The appointee is accountable to the Director of the Research School. The appointee will liaise with relevant professional and academics staff members within the Research School of Electrical, Energy and Materials Engineering and the ANU as well as establishing relationships with the wider research community to enhance cross-disciplinary collaborations.

The post is funded by external Australian Research Council (ARC) Discovery Project grants and a grant from the US Airforce Office of Scientific Research (AFOSR). While these grants continue the appointee will also be accountable to the lead CIs on these grants.

As an academic member of the Research School of Electrical, Energy and Materials Engineering the appointee will be required to contribute to the overall intellectual life of the School, College and University. This includes contribution to research, education and outreach agendas of the School both nationally and internationally in a manner that is appropriate to the level of appointment.

The appointee is expected to undertake independent research activities that are aligned with the School's strategic priorities that emphasise relevant and translational research.

In this specific position the appointee will also be required to undertake high quality fundamental research in the areas of Quantum Control Theory, Robust Control Theory and Stochastic Control Theory.

## Role Statement:

In their role as ANU academic level C in the Research School of Electrical, Energy and Materials Engineering, the appointee will be expected to:

1. Undertake high impact independent research in the areas of Quantum Control Theory, Robust Control Theory and Stochastic Control Theory with a view to publishing original and innovative results in international refereed journals, present research at academic seminars and at national and international conferences, and collaborate with other researchers at a national and/or international level.
2. Actively seek and secure external funding including the preparation and submission of research proposals to external funding bodies.
3. Make a contribution to the teaching activities of the School at the undergraduate and graduate levels. This includes, but is not limited to, the preparation and delivery of lectures and tutorials, the preparation of online material, marking and assessment, consultations with students, acting as a subject coordinator, and the initiation and development course/subject material.
4. Supervise students working on individual or group projects at undergraduate, honours, graduate-coursework levels. Supervision of research students.
5. Lead, supervise and develop less senior academic and research support staff in your research area.
6. Proactively contribute to all aspects of the operation of the School and College. This may include representation through committee membership
7. Conduct outreach activities including to prospective students, research institutes, industry, government, the media and the general public.
8. Maintain and actively promote high academic standards in all education, research and administration endeavours.
9. Take responsibility for their own workplace health and safety and not wilfully place at risk the health and safety of another person in the workplace.
10. Other duties as required consistent with the classification level of the position.

## SELECTION CRITERIA:

1. A PhD in Electrical Engineering, Mathematics or a related area, with a strong track record of independent research in the fields of Quantum Control Theory, Robust Control Theory and Stochastic Control Theory. Evidenced by cited publications in peer-reviewed journals and conferences, a record of developing and maintaining collaborations and by other measures such as awards, invitations to give talks at leading conferences etc.
2. A track record of articulating and prosecuting innovative research in the fields of Quantum Control Theory, Robust Control Theory and Stochastic Control Theory and a vision for the activities they will undertake at the ANU.
3. Evidence of effective teaching and of the ability to contribute to setting the education agenda of the School in the areas of Control and System Dynamics.
4. A track record of successfully supervising high quality PhD/Masters research students
5. Excellent oral and written English language skills and a demonstrated ability to communicate and interact effectively with a variety of staff and students in a cross-disciplinary academic environment and to foster respectful and productive working relationships with staff, students and colleagues at all levels.
6. A demonstrated high-level understanding of equal opportunity principles and a commitment to the application of these policies in a University context.

Supervisor Signature:		Date:	10 Aug 2019
Printed Name:	Ian Petersen	Uni ID:	U4036493

## References:

[General Staff Classification Descriptors](#)

[Academic Minimum Standards](#)

# Pre-Employment Work Environment Report

## Position Details

College/Div/Centre	CECS	Dept/School/Section	RSEEME
Position Title	Academic level C	Classification	Level C
Position No.		Reference No.	


In accordance with the Occupational Health and Safety Act 1991 the University has a duty of care to provide a safe workplace for all staff.

- This form must be completed by the supervisor of the advertised position and forwarded with the job requisition to Appointments and Promotions Branch, Human Resources Division. Without this form jobs cannot be advertised.
- This form is used to advise potential applicants of work environment issues prior to application.
- Once an applicant has been selected for the position consideration should be given to their inclusion on the University's Health Surveillance Program where appropriate – see . [http://info.anu.edu.au/hr/OHS/\\_Health\\_Surveillance\\_Program/index.asp](http://info.anu.edu.au/hr/OHS/_Health_Surveillance_Program/index.asp)  
Enrolment on relevant OHS training courses should also be arranged – see [http://info.anu.edu.au/hr/Training\\_and\\_Development/OHS\\_Training/index.asp](http://info.anu.edu.au/hr/Training_and_Development/OHS_Training/index.asp)
- 'Regular' hazards identified below must be listed as 'Essential' in the Selection Criteria - see 'Employment Medical Procedures' at [http://info.anu.edu.au/Policies/\\_DHR/Procedures/Employment\\_Medical\\_Procedures.asp](http://info.anu.edu.au/Policies/_DHR/Procedures/Employment_Medical_Procedures.asp)

## Potential Hazards

- Please indicate whether the duties associated with appointment will result in exposure to any of the following potential hazards, either as a **regular** or **occasional** part of the duties.

TASK	regular	occasional	TASK	regular	occasional
key boarding	<input checked="" type="checkbox"/>	<input type="checkbox"/>	laboratory work	<input type="checkbox"/>	<input type="checkbox"/>
lifting, manual handling	<input type="checkbox"/>	<input type="checkbox"/>	work at heights	<input type="checkbox"/>	<input type="checkbox"/>
repetitive manual tasks	<input type="checkbox"/>	<input type="checkbox"/>	work in confined spaces	<input type="checkbox"/>	<input type="checkbox"/>
catering / food preparation	<input type="checkbox"/>	<input type="checkbox"/>	noise / vibration	<input type="checkbox"/>	<input type="checkbox"/>
fieldwork & travel	<input type="checkbox"/>	<input checked="" type="checkbox"/>	electricity	<input type="checkbox"/>	<input type="checkbox"/>
driving a vehicle	<input type="checkbox"/>	<input type="checkbox"/>			
<b>NON-IONIZING RADIATION</b>			<b>IONIZING RADIATION</b>		
solar	<input type="checkbox"/>	<input type="checkbox"/>	gamma, x-rays	<input type="checkbox"/>	<input type="checkbox"/>
ultraviolet	<input type="checkbox"/>	<input type="checkbox"/>	beta particles	<input type="checkbox"/>	<input type="checkbox"/>
infra red	<input type="checkbox"/>	<input type="checkbox"/>	nuclear particles	<input type="checkbox"/>	<input type="checkbox"/>
laser	<input type="checkbox"/>	<input type="checkbox"/>			
radio frequency	<input type="checkbox"/>	<input type="checkbox"/>			
<b>CHEMICALS</b>			<b>BIOLOGICAL MATERIALS</b>		
hazardous substances	<input type="checkbox"/>	<input type="checkbox"/>	microbiological materials	<input type="checkbox"/>	<input type="checkbox"/>
allergens	<input type="checkbox"/>	<input type="checkbox"/>	potential biological allergens	<input type="checkbox"/>	<input type="checkbox"/>
cytotoxics	<input type="checkbox"/>	<input type="checkbox"/>	laboratory animals or insects	<input type="checkbox"/>	<input type="checkbox"/>
mutagens/teratogens/ carcinogens	<input type="checkbox"/>	<input type="checkbox"/>	clinical specimens, including blood	<input type="checkbox"/>	<input type="checkbox"/>
pesticides / herbicides	<input type="checkbox"/>	<input type="checkbox"/>	genetically-manipulated specimens	<input type="checkbox"/>	<input type="checkbox"/>
			immunisations	<input type="checkbox"/>	<input type="checkbox"/>
<b>OTHER POTENTIAL HAZARDS (please specify):</b>					

Supervisor's Signature:		Print Name:	Ian Petersen	Date:	10 Aug 2019
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