



Position Description

College/Division:	ANU College of Engineering, Computing and Cybernetics
School/Centre:	School of Engineering
Department/Unit:	
Position Title:	Research Associate
Classification:	Academic Level A
Position No:	40677
Responsible to:	Professor Dan MacDonald
Number of positions that report to this role:	Nil
Delegation(s) Assigned:	Nil

PURPOSE STATEMENT:

The ANU by 2025 Strategic Plan calls for the University to serve society through transformational research and education. As one of the great universities of the world, ANU is driven by a culture of excellence in everything we do. Our lived experience is increasingly one of large-scale systems of people, whose actions and interactions are influenced by our digital, physical and biological environment. The ANU College of Engineering, Computing and Cybernetics (CECC) hosts three of the key disciplines necessary to help us design, build, regulate and secure the future.

CECC brings together expertise in social, technical, computational, ecological and scientific systems to build a new approach to systems design and build new national capabilities in data-driven policy and business development. The work we do in the College directly supports one of the four pillars of ANU by 2025: to strengthen our national mission and meet our unique responsibilities as Australia's national university. We will deliver on our mission by building a strong community, providing transformative educational experiences, conducting high-impact research, seeking meaningful engagement, and becoming a resilient organisation post COVID-19.

We welcome and openly acknowledge differences in expertise, research / education / professional focus, experience and perspective.

CECC is a vibrant and diverse community of more than three thousand students, staff, and visitors. Our College is comprised of three schools: the School of Computing, School of Cybernetics, and School of Engineering, supported by the Professional Services Group.

The School of Engineering brings together a diverse and welcoming community that is motivated to seek "wicked problems". We connect divergent thinkers, to explore and pose solutions, that cross the traditional interdisciplinary and global boundaries. We have evolved from our foundational strength in systems thinking, reaching beyond traditional engineering fields. This systems approach embraces our core strengths and is shaped around four focus areas: Aerospace Engineering, Electrical Engineering, Environmental Engineering, Mechatronics. Join us in our fundamental quest of discovery and passionate pursuit of knowledge that goes beyond our lived world.]

KEY ACCOUNTABILITY AREAS:

Position Dimension & Relationships:

The position is located within the School of Engineering. The appointee will be accountable to Prof Daniel Macdonald and the Director of the School. The post is funded by the Australian Renewable Energy Agency (ARENA).

The appointee will be required to perform independent and team-based research on solar cells, through experimental work and advanced modelling, working together with our project partners, and other teams at ANU.

More generally, as an academic member of the School of Engineering, the appointee will be required to contribute to research, education and outreach agendas of the school both nationally and internationally in a manner that is appropriate to the level of appointment. Education activities may include the preparation and delivery of tutorials, lectures, practical classes etc as well as the supervision of research, professional and administrative support staff involved in the staff member's research. The appointee may also be asked to supervise or mentor less senior staff and will be expected to contribute cooperatively to the overall intellectual life of the School, College and University.

Role Statement:

- In their role as ANU academic level A in the School of Engineering the appointee will be expected to:
- Undertake independent research in the field of advanced solar cells, with a view to publishing original and innovative results in 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.
- Work constructively with other project team members and project partners to contribute to the achievement of project milestones and the preparation of project reports.
- Actively seek and secure external funding including the preparation and submission of research proposals to external funding bodies.
- Contribute 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 subject coordinators and the initiation and development of course/subject material.
- Supervise students working on individual or group projects at undergraduate, honours, graduate-coursework levels. Assist with supervision of research students.
- Supervise less senior academic staff and research support staff in your research area.
- Assist in outreach activities including to prospective students, research institutes, industry, government, the media and the general public.
- Maintain high academic standards in all education, research and administration endeavours.
- 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.
- Comply with all ANU policies and procedures, and in particular those relating to work health and safety and equal opportunity
- Other duties as required consistent with the classification level of the position.

SELECTION CRITERIA:

1. A relevant PhD in engineering, materials science or physics.
2. A track record of independent research in advanced solar cells, as evidenced by publications in high quality peer-reviewed journals and conferences, a record of developing and maintaining collaborations, and by other measures such as research grants, awards and invited presentations.
3. The ability and willingness to work effectively with the project team members, our industry and institutional partners, and to prepare detailed project reports.
4. The ability and willingness to apply for competitive external funding to support individual and collaborative research activities.
5. The ability and willingness to make some contributions to the School's teaching program in the area of the applicant's expertise.
6. The ability to contribute to the supervision of PhD, Masters and Honours research students.
7. 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.
8. A demonstrated high-level understanding of equal opportunity principles, and a commitment to the application of these policies in a University context.

The ANU conducts background checks on potential employees, and employment in this position is conditional on satisfactory results in accordance with the [Background Checking Procedure](#) which sets out the types of checks required by each type of position.

References:

[CECC Academic Performance Standards](#)



Pre-Employment Work Environment Report

Position Details

College/Div/Centre	ANU College of Engineering, Computing and Cybernetics	Dept/School/Section	School of Engineering
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In accordance with the Work Health and Safety Act 2011 (Cth) the University has a primary duty of care, so far as reasonably practicable, to ensure the health and safety of all staff while they are at work in the University.

- This form must be completed by the supervisor of the advertised position and appended to the back of the Position Description.
- This form is used to advise potential applicants of work environment and health and safety hazards prior to application.
- Once an applicant has been selected for the position they must familiarise themselves with the University WHS Management System via Handbook guidance <https://services.anu.edu.au/human-resources/health-safety/whs-management-system-handbook>
- The hazards identified below are of generic nature in relation to the position. It is not correlated directly to training required for the specific staff to be engaged. Identification of individual WHS training needs must be in accordance with WHS Local Training Plan and through the WHS induction programs and Performance Development Review Process.
- '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

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 checked="" type="checkbox"/>	<input type="checkbox"/>
lifting, manual handling	<input type="checkbox"/>	<input checked="" type="checkbox"/>	work at heights	<input type="checkbox"/>	<input checked="" type="checkbox"/>
repetitive manual tasks	<input type="checkbox"/>	<input checked="" type="checkbox"/>	work in confined spaces	<input type="checkbox"/>	<input type="checkbox"/>
Organizing events	<input type="checkbox"/>	<input type="checkbox"/>	noise / vibration	<input type="checkbox"/>	<input checked="" type="checkbox"/>
fieldwork & travel	<input type="checkbox"/>	<input checked="" type="checkbox"/>	electricity	<input type="checkbox"/>	<input checked="" type="checkbox"/>
driving a vehicle	<input type="checkbox"/>	<input type="checkbox"/>			
NON-IONIZING RADIATION			IONIZING RADIATION		
solar	<input type="checkbox"/>	<input checked="" type="checkbox"/>	gamma, x-rays	<input type="checkbox"/>	<input checked="" type="checkbox"/>
ultraviolet	<input type="checkbox"/>	<input checked="" type="checkbox"/>	beta particles	<input type="checkbox"/>	<input type="checkbox"/>
infra red	<input checked="" type="checkbox"/>	<input type="checkbox"/>	nuclear particles	<input type="checkbox"/>	<input type="checkbox"/>
laser	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
radio frequency	<input type="checkbox"/>	<input type="checkbox"/>			
CHEMICALS			BIOLOGICAL MATERIALS		
hazardous substances	<input checked="" 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"/>

OTHER POTENTIAL HAZARDS (please specify):