



Position Description

College/Division:	ANU College of Engineering & Computer Science
School/Centre:	Research School of Engineering
Department/Unit:	Solar Thermal Group
Position Title:	Research Fellow
Classification:	Academic Level B
Position No:	TBA
Responsible to:	Dr Joe Coventry

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 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 21st century.

The purpose of this appointment is to contribute to the objectives/milestones of the following ARENA-funded projects:

- Australian Solar Thermal Research Institute (ASTRI) program projects:
 - Sodium receiver design project
 - Sodium receiver on-sun testing project
 - Heliostat project
- "A Robotic Vision System for Rapid Inspection and Evaluation of Solar Plant Infrastructure"

The applicant will be a mechanical / optical engineer, with strong background in optics, skills and experience in applied mathematical and numerical modelling, and strong computer programming capabilities (e.g. Python, C, C++).

KEY ACCOUNTABILITY AREAS:

Position Dimension & Relationships:

The candidate will be supervised by Dr Joe Coventry. As an academic member of the Research 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 staff member is expected to contribute cooperatively to the overall intellectual life of the School, College and University.

As there are a number of collaborations related with each project. There will be times whereby the appointee will be required to travel domestically periodically for research purposes.

Role Statement:

In their role as ANU academic level B in the Research School of Engineering the appointee will be expected to:

1. Undertake independent research in the area related to the projects 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.
2. Actively seek and secure external funding including the preparation and submission of research proposals to external funding bodies.
3. 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.
4. Supervise students working on individual or group projects at undergraduate, honours, graduate-coursework levels. Assist with supervision of research students.
5. Supervise less senior academic staff and research support staff in your research area.
6. Actively contribute to all aspects of the operation of the School.
7. Assist in outreach activities including to prospective students, research institutes, industry, government, the media and the general public.
8. Maintain 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:**ANU Academic Level B**

1. A PhD in mechanical engineering or a related area, with a track record of independent research in the field of engineering as evidenced by 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. Evidence of the ability to conduct independent and innovative research of a high quality with the ability to carry work through to publication in internationally recognised scientific journals.
3. A background in mechanical / optical engineering, with a strong background in optics, skills and experience in numerical modelling, and strong computer programming capabilities (e.g. Python, C, C++).
4. 4. A high level of analytical, interpretive and problem-solving skills together with the ability to exercise sound independent judgement with a high level of self-motivation.
5. An ability and commitment to win bids for competitive external funding to support individual and collaborative research activities.
6. Ability and willingness to teach at all levels.
7. The ability to supervise and graduate high quality PhD/Masters research students
8. 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.
9. 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:	
Printed Name:	Joe Coventry	Uni ID:	

References:

[General Staff Classification Descriptors](#)

[Academic Minimum Standards](#)