



Position Description

College/Division:	College of Engineering, Computing and Cybernetics
Faculty/School/Centre:	School of Engineering
Department/Unit:	Environmental and Aerospace Engineering Clusters
Position Title:	Senior Research Officer
Classification:	ANU Grade 7 (Research)
Position No:	23955
Responsible to:	Juan Felipe Torres (Senior Lecturer)

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 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

- Strengthen the School of Engineering as an internationally centre of excellence in environmental and aerospace engineering; and
- Contribute to the objectives of an externally funded project.

KEY ACCOUNTABILITY AREAS:

Position Dimension & Relationships:

The position is located within the School of Engineering, a diverse research and teaching community, 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 lead CI on the grant and the Director of the School. The appointee will liaise with relevant professional and academics staff members within the School of Engineering and the ANU as well as establishing relationships with the wider research community to enhance cross-disciplinary collaborations.

The post is jointly funded (50/50) by the Department of Foreign Affairs and Trade on the project "*Solar desalination to improve irrigation and crop productivity*" and the School of Engineering to support research in the clusters of environmental and aerospace engineering.

Role Statement

Under broad direction from their supervisor, the appointee will be expected to:

- Conduct and support research in the above mentioned project either as a member of a team or independently along with the production of conference and seminar papers and publications from that research;
- Design, setup, assemble and test purpose-built equipment (e.g. for desalination) and investigate methods to improve their performance;
- Collaborate with stakeholders to assess the performance of solar-driven desalination units within the framework of the above mentioned project;
- Provide guidance in the research effort of junior members of research-only academic staff in his/her research area;
- Involvement in professional activities including, subject to availability of funds, travelling to specific regions to collaborate with stakeholders, attendance at conferences and seminars in the field of expertise;
- Provide general support on administrative and a range of research related matters, including coordinating team meetings, coordinating the communications to various stakeholders, update the web content of the research group and organising relevant travel and events;
- Support teaching and student team activities such as design of student labs and training of undergraduate students;

- Co-supervision, or where appropriate supervision, of major Honours or postgraduate research projects within the field of the staff member's area of expertise;
- Attendance at meetings associated with the research group and/or departmental and/or faculty meetings and/or membership of a limited number of committees;
- 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 bachelor's degree in mechanical engineering or a related discipline and demonstrated extensive relevant experience in a research or research support role or an equivalent combination of relevant experience and education/training. A higher education degree in mechanical engineering, or a closely-related equivalent discipline will be highly regarded.
2. Advanced skills and demonstrated experience in machine design using computer-aided design software. Demonstrated experience in experimental designs and setups will be highly regarded.
3. Demonstrated knowledge in modelling machine performance/behaviour based on heat transfer and/or fluid mechanics and/or mechanics of solids analyses.
4. Ability to conduct high quality independent and innovative research, with the ability to carry work through to publication. Willingness to learn new research methods will be highly regarded.
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. Demonstrated high level verbal and written communication skills with the ability to work effectively in an independent role and collaboratively with others in a research environment with people from diverse backgrounds.
6. A demonstrated understanding of equal opportunity principles and policies and a commitment to their application 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.

Printed Name:		Uni ID:	
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References:

[General Staff Classification Descriptors](#)
[Academic Minimum Standards](#)