



Position Description

College/Division:	College of Engineering & Computer Science
School/Centre:	Research School of Engineering
Department/Unit:	
Position Title:	Postdoctoral Research Fellow
Classification:	Academic Level B
Position No:	
Responsible to:	Associate Professor Antonio Tricoli

CONTEXT STATEMENT

Australian Research Council LINKAGE Project “Next Generation Easy-Clean Ophthalmic and Optical Lenses by Scalable Nano-Texturing”

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 Nanotechnology Research Laboratory in the Research School of Engineering (RSEng) of the College of Engineering and Computer Science (CECS) of ANU is amongst the world-leading groups in the multi-scale engineering of nanostructured materials and devices, with particular emphasis on scalable nanofabrication approaches that facilitate the translation of scientific findings into commercial products. The Laboratory of Advanced Biomaterials at RSEng, CECS is amongst the world-leading groups in the design of organic biocompatible materials by supramolecular Chemistry.

The Nanotechnology Research Laboratory and the Laboratory of Advanced Biomaterials at ANU have partnered with Carl Zeiss Pty to work on the development of novel nanostructured optical coatings. Within this collaboration, they have been recently awarded an Australian Research Council LINKAGE project on the development of the *Next Generation Easy-Clean Ophthalmic and Optical Lenses by Scalable Nano-Texturing*. Supported by the ARC LINKAGE project, we are now looking to hire a motivated and talented postdoctoral fellow to work with the ANU and Carl Zeiss chief (CI) and partner (PI) investigators on this research program.

PURPOSE STATEMENT:

The position is part of the inaugural Australian Research Council LINKAGE project: Next Generation Easy-Clean Ophthalmic and Optical Lenses by Scalable Nano-Texturing. The ANU investigator team is at the forefront of the development of multi-scale engineering of nanostructured materials and devices for super(de)wetting coatings. In a collaborative effort with the ANU CIs and Carl Zeiss PIs, the Research Fellow will be responsible for the design, fabrication and characterisation of super(de)wetting coatings with superior optical clearness.

KEY ACCOUNTABILITY AREAS:

Position Dimension & Relationships:

The position is located within the Nanotechnology Research Laboratory in the Research School of Engineering in the College of Engineering and Computer Science. The appointee is accountable to the Head of the Nanotechnology Research Laboratory, Associated Professor Antonio Tricoli, and the Director of the Research School of Engineering. The project is highly interdisciplinary and will include working in a multidisciplinary team at the RSEng of ANU and Carl Zeiss Pty, with explicitly planned research work with the head of the Laboratory for Advanced Biomaterials Associate Professor David Nisbet.

Role Statement:

Under the broad direction of the project team leaders, the Research Fellow will:

1. Undertake independent research in the area of development and implementation of multi-scale engineering of nanostructured materials and devices for super(de)wetting coatings with a view to publishing original and innovative results in refereed journals, present research at academic seminars and at national and international conferences. This includes working as part of a team to achieve well defined milestones.
2. Collaborate with senior staff to actively seek and secure external funding, assist to prepare and submit research proposals to external funding bodies as appropriate
3. Subject to the requirements of the funding source and where an opportunity exists, the occupant may be encouraged/asked to contribute to the teaching activities of the School at the undergraduate and graduate levels
4. Supervise students working on individual or group projects at undergraduate, honours, graduate-coursework levels. Assist with supervision of research students
5. Actively contribute to all aspects of the operation of the School
6. Assist in outreach activities including to prospective students, research institutes, industry, government, the media and the general public
7. Maintain high academic standards in all education, research and administrative endeavours
8. Comply with all ANU policies and procedures, and in particular those relating to work health and safety and equal opportunity

Skill Base

A **Level B Academic** will normally have completed a relevant doctoral qualification or have equivalent qualifications or research experience. In addition, he/she may be expected to have had post-doctoral research experience that has resulted in publications, conference papers, reports or professional or technical contributions that give evidence of research ability.

SELECTION CRITERIA:

1. A PhD in physics, chemistry engineering or materials science or equivalent qualifications and experience in a related area, with a track record of independent research in the field of nano-materials fabrication/characterisation as evidenced by publications in peer-reviewed journals and presentations at conferences.
2. Evidence of the ability to articulate and prosecute innovative research in the field of Nanotechnology and a vision for the activities they will undertake at the ANU.
3. Evidence of the ability to articulate and prosecute innovative research in the field of nano-materials fabrication and characterisation. Experience that is relevant to experimental research in some or all of the following areas: nanofabrication, optical coatings and super(de)wetting materials.
4. An ability and commitment to win bids for competitive external funding to support individual and collaborative research activities.
5. Ability and willingness to contribute to teaching within the scope of the project.
6. The ability to assist in the supervision of students working on research projects.
7. The ability to work as part of a team and to deadlines.
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 environment and to foster respectful and productive working relationships with staff, students and colleagues at all levels.
9. A demonstrated understanding of equal opportunity principles and policies and a commitment to their application in a university context.

Supervisor Signature:**Date:**

Printed Name:

Uni ID:**References:**[General Staff Classification Descriptors](#)[Academic Minimum Standards](#)**Pre-Employment Work Environment Report**

Please note the Pre-Employment Work Environment Report form must be completed by the supervisor of the advertised position and provided electronically and separately, as it needs to be uploaded into ANU Recruit system and available for applicants to download when reviewing the position documentation. Without this form jobs cannot be advertised.

Pre-Employment Work Environment Report

Position Details

College/Div/Centre	ANU College of Engineering and Computer Science	Dept/School/Section	RSEng
Position Title	Research Fellow	Classification	Level B
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
Enrolment on relevant OHS training courses should also be arranged – see 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

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 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 checked="" type="checkbox"/>
fieldwork & travel	<input type="checkbox"/>	<input type="checkbox"/>	electricity	<input checked="" type="checkbox"/>	<input 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 type="checkbox"/>	<input checked="" type="checkbox"/>	nuclear particles	<input type="checkbox"/>	<input type="checkbox"/>
laser	<input type="checkbox"/>	<input checked="" type="checkbox"/>			
radio frequency	<input type="checkbox"/>	<input checked="" 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/	<input type="checkbox"/>	<input type="checkbox"/>	clinical specimens, including blood	<input type="checkbox"/>	<input type="checkbox"/>
carcinogens			genetically-manipulated specimens	<input type="checkbox"/>	<input type="checkbox"/>
pesticides / herbicides	<input type="checkbox"/>	<input type="checkbox"/>	immunisations	<input type="checkbox"/>	<input type="checkbox"/>

OTHER POTENTIAL HAZARDS (please specify):

Supervisor's Signature:		Print Name:		Date:	
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