

# Postdoctoral Fellow

*Position Number: 00067313*  
*Position Title: Postdoctoral Fellow*  
*Date Written: October 2018*

*Faculty / Division: Engineering*  
*School / Unit: School of Chemical Engineering*  
*Position Level: Level A / B*

## ORGANISATIONAL ENVIRONMENT

UNSW is currently implementing a ten year strategy to 2025 and our ambition for the next decade is nothing less than to establish UNSW as Australia's global university. We aspire to this in the belief that a great university, which is a global leader in discovery, innovation, impact, education and thought leadership, can make an enormous difference to the lives of people in Australia and around the world.

Following extensive consultation in 2015, we identified three strategic priority areas. Firstly, a drive for academic excellence in research and education. Universities are often classified as 'research intensive' or 'teaching intensive'. UNSW is proud to be an exemplar of both. We are amongst a limited group of universities worldwide capable of delivering research excellence alongside the highest quality education on a large scale. Secondly, a passion for social engagement, which improves lives through advancing equality, diversity, open debate and economic progress. Thirdly, a commitment to achieving global impact through sharing our capability in research and education in the highest quality partnerships with institutions in both developed and emerging societies. We regard the interplay of academic excellence, social engagement and global impact as the hallmarks of a great forward-looking 21st century university.

To achieve this ambition we are attracting the very best academic and professional staff to play leadership roles in our organisation.

## Values in Action: Our UNSW Behaviours

UNSW recognises the role of employees in driving a high performance culture. The behavioural expectations for UNSW are below.

Please refer to the UNSW Behavioural Indicators for the expectations of your career level (level A / B).



Values in Action  
Our UNSW Behaviours



Builds  
Collaboration



Embraces  
Diversity



Displays  
Respect



Demonstrates  
Excellence



Drives  
Innovation

## OVERVIEW OF RELEVANT AREA AND POSITION SUMMARY

The School of Chemical Engineering has been delivering excellent teaching and research for over sixty-five years. The research clusters in the school broadly span the areas of Energy, Food and Health, Environmental Technology, Electronic Materials, Macromolecular and Interfacial Engineering, and Product and Process Design. The school is ranked in the top 37 (QS World Ranking) in Chemical Engineering. For further information about the School, please visit <http://www.engineering.unsw.edu.au/chemical-engineering/>

The Postdoctoral Fellow will conduct collaborative research at Professor Kourosh Kalantar-zadeh's laboratory. The role reports to Professor Kourosh Kalantar-zadeh and has no direct reports.

## RESPONSIBILITIES

Specific responsibilities for this role include:

### Level A

- Contribute independently or as a team member in collaborative research on electronic materials (either liquid or solid states), their synthesis, characterisation and device fabrication.
- Contribute to the writing of scientific papers and reports for international journals and progress reporting to other researchers and industry partners.
- Assist with the coordination of research activities and actively contribute to research outputs to meet project milestones.
- Contribute to the definition of research directions and the preparation of research proposal submissions to funding bodies and actively seek collaboration with industry partners as appropriate.
- Assist with supervision of PhD and ME research students and 4<sup>th</sup> year thesis students.
- Work with the collaborating partners and associated technology transfers including attendance in partner facilities of the industry partners as required.
- Participation in international conferences and/or workshops relevant to the project as required (subject to funding availability).
- Participate in regular project meetings and undertake other research and administration activities as required.
- Cooperate with all health and safety policies and procedures of the university and take all reasonable care to ensure that your actions or omissions do not impact on the health and safety of yourself or others.

### Level B (in addition to the above)

- More significant contribute to the project and lead areas of the project where the opportunity arises and where appropriate.
- Disseminate research results through writing of scientific papers and reports for international journals and progress reporting to other researchers and industry partners.
- Independently seek and apply for external funding opportunities to grow and enhance the research project.
- Create a scholarly impact in the discipline which is recognised by peers in advancement of disciplinary knowledge.
- Supervision or joint supervision of PhD and ME research students and 4<sup>th</sup> year thesis students as appropriate.

## SELECTION CRITERIA

### Level A:

- Postgraduate degree (or soon to be rewarded) in one of the fields of Chemical, Biomedical, Electrical or Mechanical Engineering, Chemistry, Material Science Pharmacy and Biochemistry or related field
- Demonstrated ability to conduct independent research with limited supervision.
- Demonstrated track record of high-quality research outputs, publications and conference presentations relative to opportunity in at least one of the fields of chemistry, materials science, electronics, optics and biochemistry.
- Demonstrated ability to work in a team, collaborate across disciplines and build effective relationships.
- Strong interpersonal skills with demonstrated ability to communicate and interact with a diverse range of stakeholders and students.
- Knowledge of equal opportunity principles.
- Knowledge of health and safety responsibilities and commitment to attending relevant health and safety training

#### **Level B:**

In addition to the above, essential criteria for level B include:

- At least three years of experience in a postdoctoral position conducting research in one of the areas of liquid metals, electronic materials, surface characterisations, plasmonics, device fabrication or biotechnology.
- Strong track record of high-quality publications and conference presentations relative to opportunity.
- Demonstrated ability to supervise postgraduate and honours students.

*It is not the intention of the position description to limit the scope or accountabilities of the position but to highlight the most important aspects of the position. The aspects mentioned above may be altered in accordance with the changing requirements of the role.*