*Faculty / Division: Faculty of Engineering*

*School / Unit: Electrical Engineering and Telecommunications*

*Position Level: Level A*

*Position Number: 00076174*

*Position Title: Research Associate*

*Date Written: July 2019*

## 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 A.

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| A close up of a logo  Description automatically generated | Delivers high performance and demonstrates service excellence. |
|  | Thinks creatively and develops new ways of working. Initiates and embraces change. |
|  | Works effectively within and across teams. Builds relationships with internal and external stakeholders to deliver on outcomes. |
| A close up of a logo  Description automatically generated | Values individual differences and contributions of all people and promotes inclusion. |
|  | Treats others with dignity and empathy. Communicates with integrity and openness. |

## OVERVIEW OF RELEVANT AREA AND POSITION SUMMARY

The School of Electrical Engineering and Telecommunications (EE&T) has a vibrant research culture reflected in the achievements of its academic staff, and is currently rated as a level 5 ERA School (“Well above world standard”) in Excellence in Research Australia evaluations. The School enjoys a world-leading reputation for research excellence, with six IEEE Fellows among our 44 academic staff. According to the Shanghai Jiaotong rankings, EE&T@UNSW is placed first in Australia. Nationally, the School offers the most complete range of undergraduate and postgraduate electrical engineering and telecommunications programs, and is the largest of its kind. With a team that is recognised for its teaching excellence and innovative research, the School is producing the next generation of innovative engineers who will be equipped with the skills and knowledge to make a positive impact on industry and society. <http://www.engineering.unsw.edu.au/electrical-engineering/>.

The Research Associate will predominantly contribute to research activities carried out in UNSW THz Photonics Group led by Dr Shaghik Atakaramians at School of EE&T. The role of Research Associate reports to Dr Shaghik Atakaramians (UNSW Scientia Fellow) and has no direct reports.

## RESPONSIBILITIES

Specific responsibilities for this role include:

* Conduct research in design, fabrication and measurement of Terahertz (THz) waveguides and waveguide-based devices using relevant numerical software and Terahertz experimental systems independently and as part of a team.
* 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 preparation of research proposal submissions and reporting to funding bodies and actively seek collaboration with industry partners, as appropriate;
* Participate in and/or present at conferences and/or workshops relevant to the project, as required;
* Assist with the supervision of research students in the research area, where 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.
* Work with the collaborating partners and associated technology transfers including attendance in partner facilities of the industry partners as required;
* 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.

## SELECTION CRITERIA

* PhD (or soon to be awarded) related to Electrical Engineering or a relevant field;
* Demonstrated thorough theoretical background in design of fibres/waveguides and devices (analytically and numerically specially familiarity with COMSOL or CST numerical software);
* Demonstrated experience in conducting Terahertz experiment (TDS or CW system);
* Demonstrated ability to conduct independent research with limited supervision;
* Demonstrated track record of publications and conference presentations relative to opportunity;
* Demonstrated ability to assist with the supervision of HDR students;
* 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 health and safety responsibilities and commitment to attending relevant health and safety training;
* Knowledge of equal opportunity principles.

*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.*