

Position Description

Postdoctoral Fellow

Position Number: 00030761
Position Title: Postdoctoral Fellow, IoT Security
Date Written: September 2018

Faculty / Division: UNSW Canberra
School / Unit: SEIT
Position Level: Level A

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.

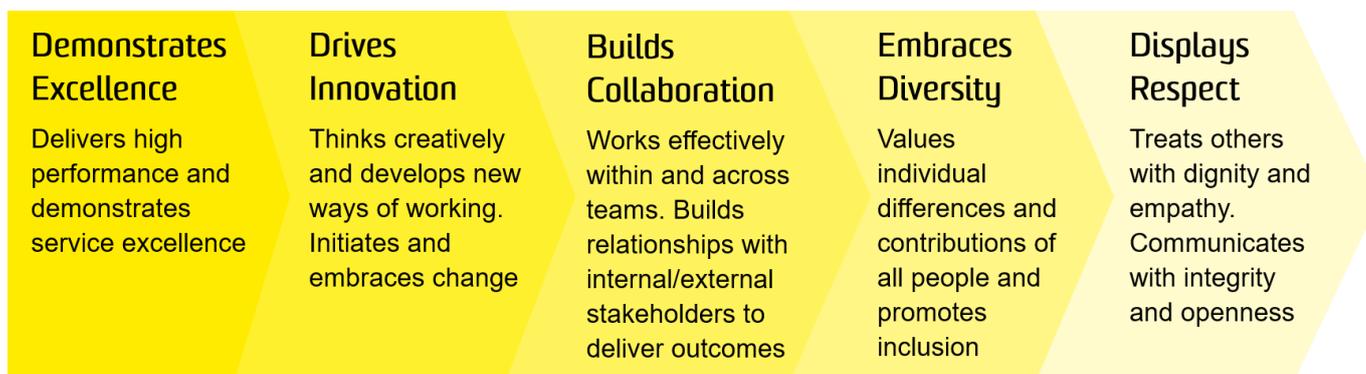
Following extensive consultation in 2015, we identified three strategic priority areas. Firstly, a drive for academic excellence in research and education. Universities are often classified as 'research intensive' or 'teaching intensive'. UNSW is proud to be an exemplar of both. We are amongst a limited 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.

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.



OVERVIEW OF RELEVANT AREA AND POSITION SUMMARY

The Postdoctoral Fellow position is situated within UNSW Canberra Cyber in the School of Engineering and Information Technology at the University of NSW, Canberra. The purpose of this position is to contribute to the research and teaching capacity of UNSW Canberra Cyber, and to extend the capabilities of the UNSW Canberra Cyber Internet-of-Things (IoT) Security Lab in order to increase the international recognition of this facility. The Postdoctoral Fellow is tasked with implementing and experimenting with various flavours of blockchain suitable for secure trading of unlicensed spectrum in cyber-physical systems, contribute to timely publication of related scholarly papers, to assist in the supervision of postgraduate research candidates, and to assist in tutoring and laboratory classes of relevant undergraduate courses.

The role of Postdoctoral Fellow, IoT Security reports to Associate Professor Frank den Hartog.

RESPONSIBILITIES

Specific responsibilities for this role include:

1. Conduct research as directed by the research team leader.
2. Design experiments, collate and write up results and contribute to the preparation and submission of publications.
3. Co-supervise postgraduate research, where appropriate, or otherwise offer expert advice within the field of the staff member's area of research.
4. Contribute to the preparation of research proposal submissions to external funding bodies.
5. Attend meetings associated with research or the work of the organisational unit to which the research is connected and/or at departmental meetings.
6. Make high quality teaching contribution to the School and UNSW Canberra Cyber's teaching programs as required, including assisting in supervising research students and final year undergraduate thesis students.
7. Undertake a range of administrative tasks as directed.
8. 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

The successful candidate:

1. A PhD (or near completion) in a relevant area of computer science or electrical engineering, with a focus on network security and performance analysis;
2. A demonstrated ability to conduct practical and theoretical research in IoT security, and familiarity with general principles of IoT and CPS architectures;
3. A demonstrated ability to conduct high quality teaching at undergraduate and postgraduate levels, and willingness to undertake teaching duties as required;
4. High level interpersonal skills with excellent oral communication demonstrated by the ability to communicate with influence.
5. Excellent written communication skills demonstrated by accepted journal articles, reports or other relevant material;
6. The ability to work independently and as part of a team to complete tasks within agreed timeframes;
7. Knowledge of health and safety responsibilities and the ability and capacity to implement required UNSW health and safety policies and procedures.

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.