

Position Description

Research Associate in Applied Cryptography

Position Number: 00030948
Position Title: Research Associate
Date Written: September 2019

Faculty / Division: UNSW Canberra
School / Unit: SEIT
Position 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.

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.



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.



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 Research Associate position is located within the School of Engineering & Information Technology (SEIT). As a member of the research team the Research Associate will undertake research against the Australian Research Council (ARC) Linkage project “Developing A Smart Farming Oriented Secure Data Infrastructure”.

The Research Associate reports directly to the Chief Investigator (CI) of the ARC Linkage Project.

RESPONSIBILITIES

Specific responsibilities for this role include:

1. Conduct research as directed by the CI of the project.
2. Contribute to the development of:
 - Advanced blockchain based technology for smart farming related d IoT data secure storage and access
 - Secure online bidding protocols and perform system evaluations.
 - The prototype required by the industry partner.
3. Prepare reports summarizing the results gained from the research.
4. Contribute to the preparation of research proposal submissions to external funding bodies.
5. Prepare journal and conference publications based on the research.
6. Contribute to School teaching activities as required.
7. Interact and contribute to the supervision of PhD students.
8. Undertake a range of administrative tasks as directed.
9. Contribute to the common activities of the School, Faculty and University.
10. 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

1. A PhD degree by research in Computer Science or Math or related discipline. Evidence of passing the PhD thesis examination is acceptable. It will be desirable to have a background in applied cryptography.
2. A demonstrated ability to conduct innovative and independent research.
3. A record of papers in high quality journals and/or conferences of high ranking in the field. Highly regarded journals include: IEEE INFOCOM.
4. Proficiency in C/C++ and Matlab mix programming or Java programming.
5. Excellent interpersonal, oral and written communication skills appropriate for interacting effectively team members, collaborators and colleagues across the Faculty.
6. Ability to conduct high quality teaching in a university environment and willingness to undertake teaching duties as required.
7. Knowledge of health and safety responsibilities and the ability and capacity to implement required UNSW health and safety policies and procedures.