Position Description – Research Assistant (Postdoctoral), Optoelectronic Neuromorphics

Position Details

Position Title: Research Assistant (Postdoctoral), Optoelectronic Neuromorphics

College/Portfolio: STEM College

School/Group: School of Engineering

Campus Location: Based at the Melbourne CBD campus, however may be required to work and/or be based at other campuses of the University.

Classification: Academic Level A

Employment Type: Fixed Term (Research)

Time Fraction: 1.0 FTE

RMIT University

RMIT is a multi-sector university of technology, design and enterprise with more than 96,000 students and close to 10,000 staff globally. The University's mission is to help shape the world through research, innovation and engagement, and to create transformative experiences for students to prepare them for life and work.
https://www.rmit.edu.au/about
https://www.universitiesaustralia.edu.au/university/rmit-university/

Our three main campuses in Melbourne are located in the heart of the City, Brunswick and Bundoora. Other locations include Point Cook, Hamilton and Bendigo, two campuses in Vietnam (Hanoi and Ho Chi Minh City) and a centre in Barcelona, Spain. RMIT is a truly global university.
https://www.rmit.edu.au/about/our-locations-and-facilities

We are also committed to redefining our relationship in working with, and supporting, Indigenous self-determination. Our goal is to achieve lasting transformation by maturing our values, culture, policy and structures in a way that embeds reconciliation in everything we do. We are changing our ways of knowing, working and being to support sustainable reconciliation and activate a relationship between Indigenous and non-Indigenous staff, students and community. Our three campuses in Melbourne (City, Brunswick and Bundoora campuses) are located on the unceded lands of the people of the Woi Wurrung and Boon Wurrung language groups of the eastern Kulin Nation.

Why work at RMIT University

Our people make everything at the University possible. We encourage new approaches to work and learning, stimulating change to drive positive impact. Find out more about working at RMIT University, what we stand for and why we are an Employer of Choice.
https://www.rmit.edu.au/careers

We want to attract those who will make a difference. View RMIT's impressive standings in university rankings.
https://www.rmit.edu.au/about/facts-figures/reputation-and-rankings

STEM College

The STEM College holds a leading position and expertise in the science, technology, engineering, mathematics and health (STEM) fields. We are uniquely positioned to influence and partner with industry, as never before.

STEM College is a community of exceptional STEM researchers, teachers, inventors, designers and game-changers, supported by talented professional staff. We offer higher education programs across all STEM disciplines at the Bachelor, Master and PhD levels, and ensure our students experience an education that is work-aligned and life-changing.

The College is renowned for its exemplary research in many STEM areas including advanced manufacturing and design; computing technologies; health innovation and translational medicine; nano materials and devices; and sustainable systems. Our brilliant researchers attract funding from government and industry sources.

About the School of Engineering

The School of Engineering is one of the largest Engineering Schools in Australia. It has over 350 staff and 7000 students, including 750 HDR students. The School is committed to driving innovation and collaboration through our industry partnerships. Our industry partners range from small companies to multinational organisations and we work together on translating our research into impact for our partners and the wider community.

In April 2024, the School will transition to the following Departments:

- Aerospace Engineering
- Biomedical Engineering
- Chemical and Environmental Engineering
- Civil and Infrastructure Engineering
- Electrical and Electronic Engineering
- Mechanical, Manufacturing and Mechatronics Engineering

RMIT is a global university and the School of Engineering has students and research partners across South East Asia and Europe. This includes two campuses in Vietnam, as well as partnerships in Hong Kong, Singapore and we recently entered into a partnership with the Birla Institute of Technology and Science in India. The School also has a research centre in Barcelona, which provides access to European funding and industry partners.
The size and capability of the School of Engineering at RMIT supports a multidisciplinary, outcome-oriented approach at scale. This makes the School a partner of choice in our collaborations with research agencies, other universities, and government, community and industry bodies.

Position Summary

The Research Assistant will undertake research activities in line with the University's research strategy. It is expected that the Research Assistant will work with an increasing degree of autonomy as skills and experience develop.

Reporting Line

Reports to: Professor Sumeet Walia

Direct reports: 0

Organisational Accountabilities

RMIT University is committed to the health, safety and wellbeing of its staff. RMIT and its staff must comply with a range of statutory requirements, including equal opportunity, occupational health and safety, privacy and trade practice. RMIT also expects staff to comply with its policy and procedures, which relate to statutory requirements and our ways of working.

RMIT is committed to providing a safe environment for children and young people in our community. Read about our commitment and child safe practices. https://www.rmit.edu.au/about/our-locations-and-facilities/facilities/safety-security/child-safety.

Appointees are accountable for completing training on these matters and ensuring their knowledge and the knowledge of their staff is up to date.

Key Accountabilities

- Conduct research/scholarly activities under limited supervision either independently or as a member of a team including: publishing and presenting research outputs at conferences and research forums; contributing to external research funding submissions; participating in supervision of higher degree by research candidates.
- Undertake administration related to the position.

Key Selection Criteria

1. Demonstrated ability to experimentally characterise design and characterise electronic/photonic circuits.
2. Experience in the area of neuromorphic devices (particularly optoelectronics operating principle). and device integration will be *highly desirable.*
3. An understanding of designing and interfacing neural networks with neuromorphic devices via neuromorphic-based machine learning and simulation.
4. Proven ability to undertake scientific research and development in research programs.
5. Demonstrate ability to clearly communicate research results, concepts and knowledge.
6. Demonstrated initiative in research and problem solving.
7. Demonstrated ability to work effectively both as a member of a research team and independently when required, to meet project outcomes and milestones.

Preferable attributes include:
8. Experience in co-supervising postgraduate by research students

Qualifications

Mandatory: Qualification in the relevant discipline area and have commenced or enrolled to commence their PhD.

Note: Appointment to this position is subject to passing a Working with Children Check and other checks as required by the specific role. Maintaining a valid Working With Children Check is a condition of employment at RMIT.

Preferred: Completion of the Essentials in Tertiary Teaching Practice program or equivalent[1] (if the appointed candidate does not meet this requirement at time of appointment, they will be supported to complete this as a requirement to fulfil their probation).

Endorsed:	Signature: Name: Title: Date:	**Approved:**	Signature: Name: Title: Date: