



Position Description – Research Assistant - Hybrid Diamond Fibre Sensing

Position Details

Position Title:	Research Assistant
College/Portfolio:	STEM College
School/Group:	Science
Campus Location:	Based at the City campus, but may be required to work and/or be based at other campuses of the University.
Classification:	Academic Level A
Employment Type:	Fixed Term – 1 year
Time Fraction:	1.00

RMIT University

RMIT is a multi-sector university of technology, design and enterprise. 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. For more information on RMIT University follow the links below.

<https://www.rmit.edu.au/about>

<https://www.universitiesaustralia.edu.au/university/rmit-university/>

<https://www.rmit.edu.au/about/facts-figures>

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>

College/Portfolio/Group

About the STEM College

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.

Further information on STEM College in this link: <https://www.rmit.edu.au/about/schools-colleges/stem-college>

School of Science

The School of Science provides more than 45 bachelor and postgraduate programs to 5,000 students and undertakes world-class research across the disciplines of:

- biosciences and food technology
- applied chemistry and environmental science
- physics
- mathematical sciences
- geospatial sciences

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.

This position is for a Research Assistant to be based at RMIT University, working on a Defence Next Generation Technology Fund (NGTF) Precision Quantum Sensing (PQS) funded program. The successful candidate will work in collaboration with researchers and students from RMIT University, The University of Adelaide, The University of Melbourne, The University of South Australia and the Defence Science and Technology Group. The position will involve experimental research of hybrid diamond-optical fibre magnetic sensing architectures to address the pressing issue of magnetic field detection at ambient temperatures in aqueous environments. Nitrogen-vacancy centres in diamond will be utilised as magnetic field sensors. In addition, processing (e.g., etching, lithography) of chemical vapour deposition diamond materials will be investigated as part of this position. The sensing architectures to be explored are solid state to enable operation in highly complex environments with wide ranging information sources. With an optical readout mechanism, the hybrid-diamond optic fibre will be used for time-sensitive measurements to facilitate real-time decision making. The Research Assistant will be required to prepare publications and project milestone reports in collaboration with project partners. The Research Assistant will also participate in the day-to-day operations of the project and may be required to travel to Adelaide at times during the project. 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 Brant Gibson

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

1. 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.
2. May undertake limited teaching and supervision at undergraduate levels as required.
3. Undertake administration related to the position.

Key Selection Criteria

1. Research experience in at least one or several of the following areas: diamond, materials science, quantum sensing, characterization, photonics, fibre optics and solid-state physics.
2. Evidence of research output including publications, conference contributions and/or technical reports in the above fields of research.
3. Ability to work autonomously whilst displaying a strong commitment to work in a team environment, including the demonstrated ability to confidently and effectively work with colleagues, project team leaders, and industry partners.
4. Demonstrated ability to meet deadlines and effectively manage varying workloads and respond to changing priorities as required.
5. Demonstrated high level of communication skills.

Qualifications

Mandatory: Qualification in the relevant discipline area preferably at postgraduate level. The suitable applicant must be an Australian citizen.

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.

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