



## Position Description – Research Assistant

Position Details

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Position Title: Research Assistant

College/Portfolio: STEM School/Group: Physics

Campus Location: Primarily based at Melbourne CBD campus, and the potential to work across other RMIT campuses as required.

Classification: Academic Level A

Time Fraction 1.0

Employment Type: Fixed Term

Fixed Term Reason: Research

Reporting Line: Zixin Huang

RMIT University

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RMIT is a global university of technology, design and enterprise, committed to creating transformative experiences for students and making a meaningful impact through research, innovation, and engagement. 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 campuses in Melbourne (City, Brunswick, Bundoora, and Point Cook) are complemented by international campuses in Vietnam and a centre in Barcelona, Spain. We proudly acknowledge the Woi Wurrung and Boon Wurrung peoples of the eastern Kulin Nation on whose unceded lands our campuses are located.

We are deeply committed to reconciliation and Indigenous self-determination, embedding these values throughout our policies, culture and structures.

<https://www.rmit.edu.au/about/our-locations-and-facilities>

Why Join RMIT?

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Our people are at the heart of everything we do. At RMIT, we value innovation, collaboration and impact. Our values are the heart (durrung) of who we are and what we stand for at RMIT. They guide what we do, how we make decisions, and how we treat each other.



Inclusion Imagination Integrity Courage Passion Impact

Learn more about our values: <https://www.rmit.edu.au/about/our-strategy/values>

## Organisational Accountabilities

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RMIT is committed to the safety, wellbeing and inclusion of all staff and students. As a staff member, you are expected to comply with all relevant legislation and RMIT policies, including those related to: Equal opportunity, Occupational health and safety, Privacy and trade practices & Child safety standards:

Appointees are responsible for completing all required training and ensuring that they and their team members remain up to date on relevant compliance obligations.

Staff are expected to understand and support RMIT's child safe practices as part of their professional responsibilities. More about our child safety commitment: <https://www.rmit.edu.au/about/our-locations-and-facilities/facilities/safety-security/child-safety>.

## Leadership at RMIT

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At RMIT, leadership is not defined by position or hierarchy—it is a shared responsibility demonstrated by all staff, regardless of role or title. Leadership is grounded in our six core values, which guide and shape how we work together, make decisions, and create impact.

Effective leadership means consistently integrating these values into everyday actions and interactions, whether influencing a project outcome, supporting a colleague, or leading a team. All staff are expected to embody the principles of the *Be–Know–Do* Leadership Model:

**Be** – We are open and authentic, inclusive and empowering. We are purpose driven role models and communicators.

**Know** – We are self-aware, and understand our stakeholders, our sector and priorities.

**Do** – We set clear direction and expectations, we develop ourselves and others and promote mutual accountability to deliver results.

At every level, leadership at RMIT is about influence, contribution, and mindset. It is reflected in how we empower others, foster collaboration, and drive positive change through capability-building and alignment to strategic goals.

## Position Summary

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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.

The Research Assistant will contribute to a specialised research program in quantum information theory and quantum optics, with a focus on quantum channel discrimination for high-resolution spectroscopy and AC field sensing. The project aims to develop theoretical frameworks for distinguishing closely related quantum processes that arise in light–matter interactions, and to use these frameworks to extract fine spectral or temporal information from weak or structured optical fields. The successful candidate will work on designing and analysing protocols that exploit quantum-optical channels—such as those encountered in coherent and incoherent spectroscopy.

## Key Accountabilities

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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

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1. Evidence of research output including publications, conference contributions and/or technical reports in the field.
2. Theoretical background in quantum control and quantum optics, including the ability to model and analyse light–matter interactions, dynamical evolution.
3. Theoretical background in quantum channel discrimination and quantum metrology, with proficiency in applying information-theoretic tools to develop and evaluate precision measurement and sensing protocols.
4. 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.
5. Demonstrated ability to meet deadlines and effectively manage varying workloads and respond to changing priorities as required.
6. Demonstrated high level of communication skills.

## Qualifications

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Mandatory: A PhD in physics, mathematics or a related discipline.

## Working with Children Check

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Appointment to this position is subject to holding a valid Victorian 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.