VICTORIA UNIVERSITY

PROJECT-BASED POSTGRADUATE RESEARCH STIPEND SCHOLARSHIP APPLICATION GUIDE
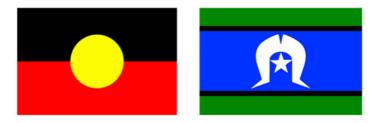
Data Analytics and Signal Processing for the SWER Broken Conductor System

MASTERS by RESEARCH ONLY

Newly commencing Australian residents (all domestic students including Australian citizens, Australian permanent residents, New Zealand citizens and holders of a permanent Australian humanitarian visa)

11/08/2025
Version 1.0

Acknowledgement of Country

Victoria University acknowledges, recognises and respects the Ancestors, Elders and families of the Bunurong/Boonwurrung, Wadawurrung and Wurundjeri/Woiwurrung of the Kulin who are the traditional owners of University land in Victoria, the Gadigal and Guring-gai of the Eora Nation who are the traditional owners of University land in Sydney, and the Yulara/Yugarapul people and Turrbal people living in Meanjin (Brisbane).

Contents

Key Details

This guide is for applicants interested in one of two postgraduate research scholarship commencing in **Research Period 1 2026** at Victoria University.

This scholarship is for the purpose of undertaking a graduate research degree related to the project outlined below and in **Table 1**.

The Stipend Value and Included Benefits are outlined in **Table 2**.

The Project

Join a nationally significant project at the edge of preventing catastrophic bushfires from powerlines. The "SWER Broken Conductor" project, supported by a major Australian Economic Accelerator (AEA) Innovate grant and industry partners, is developing innovative technology to detect and locate breakages in regional power lines before they can ignite fires. This is a critical safety issue, as demonstrated by the 2009 Black Saturday bushfires, where a broken power line led to devastating consequences.

Our team at Victoria University has developed an innovative system using a unique Power Line Carrier (PLC) communication framework that can identify a break within one second. We are now entering a crucial commercialisation phase, advancing our successful TRL 7 prototypes to a market-ready TRL 8 product.

This is a unique opportunity to contribute to a high-impact, interdisciplinary research and development project that bridges the gap between academic innovation and real-world industry application. You will work alongside researchers and industry practitioners, gaining experience in translating advanced technology into a commercial solution with the potential for global impact. Your work will directly contribute to enhancing infrastructure safety, protecting the environment, and building resilient regional communities.

The Candidates

We are looking for two highly motivated and curious individuals with a passion for solving complex, real-world problems. The ideal candidates are aspiring researchers eager to apply their analytical skills to a project with tangible outcomes. You should be a collaborative team player, ready to thrive in an interdisciplinary environment that combines power systems engineering, telecommunications, signal processing, and AI. This is a chance to build your research portfolio with hands-on experience in a project that has secured significant government and industry backing and is on a clear pathway to commercialisation.

Eligibility requirements

- A Bachelor's degree (AQF Level 7) in a related discipline such as Electrical Engineering, Computer Science, Data Science, or a similar field, with a minimum 70% average in the final year.

- An Honours degree (AQF Level 8) in a cognate discipline is highly regarded.

- Must meet Victoria University's admission requirements for a Masters of Research program.

- Must be eligible to enrol on a full-time basis

Desirable skills and experience

- Proficiency in MATLAB AND Python for data analysis and signal processing.

- Familiarity with SQL and relational databases (e.g., AWS RDS).

- Solid understanding of fundamental data structures and algorithms.

- Experience with cloud computing services (AWS is a plus).

- A strong theoretical foundation in digital signal processing.

- An interest in applying machine learning to real-world data.

- Excellent problem-solving and analytical capabilities.

Application due date

a. Application Due Date	31 August 2025

Table 1: Project Outline

Item	Detail	
a. Expected Commencement Date	16 February 2026	
b. Project Title	Data Analytics and Signal Processing for the SWER Broken Conductor System	
c. Funding Agency	Institute of Sustainable Industries & Liveable Cities	
d. Funding Agency ID		
e. Chief Investigator	Dr Douglas Gomes	
f. Associate Supervisor	Associate Professor Cagil Ozansoy	
g. Special Conditions	Intellectual Property Assignment Required	No
	Working with Children Check Required	No
	Police Check Required	No

Table 2: Stipend Value and Included Benefits

Item	Detail
a. Value of stipend per annum	$35,006 (2025 rate)

b.	**Fixed rate or incremented**	Incremented
c.	**Fee offset included**	RTP Fee Offset
d.	**PhD and/or Master Research Degrees available**	Research Masters only
e.	**Part-Time Available**	No

Domestic Applicants

Eligibility

To be eligible for this scholarship, applicants must:

- Be Australian residents (all domestic students including Australian citizens, Australian permanent residents, New Zealand citizens and holders of permanent Australian humanitarian visas)
- Meet the minimum academic entry and English language requirements for admission to the degree - click **here** for further details
- Not already have completed a research degree at the same or higher Australian Quality Framework (AQF) (or equivalent for overseas institutions)

Domestic Conditions and Benefits

Successful applicants will receive a full guide to the conditions and benefits of the Scholarships at the time of offer. The following is a summary of the main benefits and conditions.

Scholarship Value

Stipend Value

The annual value of the stipend is provided in Item (a) Value of Stipend per Annum in **Table 2** and are currently exempt from taxation.

If Item (b) of **Table 2** is marked as "Incremented" then stipend payments are indexed annually.

Fee Offset Value

In 2025, the value of this the Fee Offset component of a Scholarship is $13,650 - $16,750 per research period depending on the course.

Additional awards, allowances and stipends

Holders of Scholarships may:

- Be in receipt of minor award, allowances or other earnings which are supplementary to a scholarship, or derived from part- time work within the policies of Victoria University
    - a. student must not be receiving income from another source to support that student's general living costs while undertaking their course of study if that income is greater than 75 percent of that students VU HDR or RTP Stipend rate;

b. income unrelated to the course of study or income received for the student's course of study but not for the purposes of supporting general living costs is not to be taken into account.

Period of Support

All candidates are expected to complete their study in the timely duration for their degree as per **Table 3**.

Table 3: Stipend durations for full-time Higher Degrees by Research

	Stipend Duration	Timely Duration
Master of Research	1.5 years	1.5 years
Master of Applied Research	2 years	2 years

Periods of study already undertaken towards the degree prior to the commencement of the award will be deducted from the normal period of award tenure. Similarly, periods of study undertaken during suspension of the award, or undertaken during the tenure of a previous Research Training Program Stipend or Australian Postgraduate Award, will be deducted from the maximum period of tenure.

A Scholarship holder may be required to pay tuition fees for any period of enrolment in excess of the timely duration.

Employment

Stipend candidates are expected to normally study and research full-time (minimum of 36.75 hours per week) between the hours of 8.00am – 6.00pm Monday to Friday with Stipend candidates limited to a maximum of eight (8) hours paid employment per week during these hours. Please refer to the **Higher Degree by Research Scholarship Procedure.** Employment must not interfere with the candidate's progress.

Commencement

No deferrals of the Scholarship will be considered. All successful applicants are expected to commence study by the Commencement Date advised in the Letter of Offer. The Commencement Date will normally be the Expected Commencement Date in Item (a) of **Table 2 Project Outline**, however the University reserves the right to change the Commencement Date in the Letter of Offer when offering a scholarship.

If an applicant cannot start by the Commencement Date, the offer of the Scholarship may be withdrawn.

Scholarship Selection Procedures

Eligibility

All applications are assessed against the Eligibility criteria for the scholarship scheme. Those applications deemed ineligible for a scholarship will not be processed any further and ineligible applicants will be notified of the result.

Ranking against the selection criteria

The Project Supervisor will rank eligible applications on the basis of academic merit, relevant research experience, publications, relevant work experience, referee reports and may identify applications which are not for further consideration (NFFC).

The Project Supervisor may contact an applicant directly for more detail regarding their application.

Final Ranking

The Institute Associate Director will determine a final ranking of applications, identifying the preferred application.

Appeals

A request to review a scholarship decision must be lodged in writing **dean.gradresearch@vu.edu.au** within 10 University business days of the applicant being informed of the decision.

A review of a scholarship decision is available in circumstances where unsuccessful applicants believe there was a breach of process in the handling of their application;

The Dean, Graduate Research will undertake, or arrange a review if there is a conflict of interest, of the decision and a written outcome will be provided within 10 University business days of the date that the request was received by VU. If there are any delays to the timeline for any outcome, the Dean, Graduate Research will advise the applicant the reason for the delay and the date that they may receive an outcome of the review.

Application Submission

Please submit your CV and Cover Letter to Dr. Douglas Gomes at **Douglas.Gomes1@vu.edu.au** or to A/Prof Cagil Ozansoy **Cagil.Ozansoy@vu.edu.au**

Successful applicants will be required to submit a formal application through the Victoria University Admissions portal and meet all University requirements for admission and enrolment. Refer to the steps at **Apply For A Graduate Research Scholarship**

For more information

Please contact: **Douglas.Gomes1@vu.edu.au** or **Cagil.Ozansoy@vu.edu.au**