unsw digital grid^{Futures} Institute

Seed Funding Information Pack

2025 Funding Round

dgfi.unsw.edu.au

Contents

About DGFI	3
Purpose of the Seed Funding Program	3
Who can apply	4
2025 Focus Areas	5
Funding Octomotics	•
Funding Categories	9
Key Dates	9
How to Apply	10
Application Questions	10

About DGFI



The UNSW Digital Grid Futures Institute exists to address the complex challenge of decarbonising the energy system by developing an electrified grid powered by clean and sustainable energy sources. The scale of workforce, knowledge and skills needed to deliver this infrastructure adds to the complexity of this problem globally as we race towards net zero.

We need experts from all corners of UNSW - Business, Economics, Finance, Law, Taxation, Engineering, Social Sciences, Policy, Cyber Security, and Transport, to name a few.



Our mission is to enable the electrification of society for a smart, sustainable future through interdisciplinary research, innovation, and education.

Recognising that the transition to a decarbonised energy system requires collective effort, we emphasise that everyone has a pivotal role to play in this journey.

Purpose of the Seed Funding Program

Our Seed Funding Program provides support for projects that:

- Deliver practical impact in the energy transition.
- Foster collaboration with industry and interdisciplinary teams.
- · Enable the development of new capabilities and prototypes.

We offer grants of up to \$20,000 for early-career academics, PhD students, and professional staff to explore new ideas, protect intellectual property, or bring research closer to market.



Who can apply







Early-career academics

PhD students

Professional staff

The 2025 Seed Funding Round is aimed at:

- Early-career academics across all UNSW faculties.
- PhD students.
- Professional staff keen to pursue impactful projects.

We encourage applicants from diverse disciplines such as Business, Economics, Law, Engineering, Social Sciences, Policy, Cyber Security, and Transport.

Applications outside of the above parameters will be considered, so please share this with your wider UNSW networks.

Collaborative proposals that include industry or interdisciplinary supervision will be highly regarded.

EXAMPLE OF A PROFESSIONAL STAFF PROJECT:

A member of staff has designed a method to fabricate a particular part of a machine and the method actually solves a problem that other groups have not been able to solve. This might be because the staff member has access to a new capability like a wire cutting machine or some other mechanical tool.

As a result, the staff member might like to protect the idea as it has some commercial benefit, and they would also like to try and spin it out. Our support might give them the opportunity to do this: budget to build, protect, or progress.

We have identified areas in which we'd like to build capability at UNSW, highlighted in red on the below infographic.

From these, we are focusing our 2025 Seed Funding round on five key areas, which you will find in the following pages.



<mark>Risk</mark>

Explore the risks and liabilities associated with new technologies such as electric vehicles, drones, and autonomous transport systems. Projects may address insurance, fire safety, or emergency response related to the adoption of these technologies.

We are seeking applications from the Business School to support this focus area.

IDEA STARTERS FOR BUSINESS SCHOOL APPLICANTS

- What innovations might be needed within the insurance sector?
- What liability exists when a growing proportion of vehicles are autonomous and a fatal accident occurs with a pedestrian or another car?
- Drones are expected to be used for many applications such as last-mile delivery. What risks and liability do lawmakers need to consider?
- Electric vehicles (EVs) including e-bikes are powered by lithium-ion batteries which can risk catching fire if damaged, faulty or whilst on charge. As the adoption of EVs and chargers increase, how do we quantify risk and manage liability?

This list is not intended to be prescriptive, nor exhaustive, but to help spark ideas for projects.





Artificial Intelligence (AI)

Investigate the use of AI to manage the energy grid's complexities, from Virtual Power Plants (VPPs) to the interoperability of multiple energy sources, and the consumer rights implications of AI-managed systems.

Cyber Security

Address the increasing risks of cyber-attacks, insider threats, and crisis management in a digitised energy grid. Proposals may explore strategies for energy security and privacy protection.

Data Privacy

Examine how data generated by the digital energy grid should be ethically managed, ensuring consumer rights are respected and data privacy regulations are met.

- What rights do consumers have over how this data is used?
- How can regulation ensure robust protection of privacy rights and obligations?

Tax Reform

Investigate the fiscal implications of Australia's shift to electric vehicles, such as the impact on fuel excise revenue and reforms needed to fund future infrastructure.

 According to the 2023 Federal Budget, fuel excise will deliver \$67.6 billion in the years 2023-27. When Australia's fleet is 100% electric, how will this revenue be replaced?



Funding Categories

Content Creation Translational Research

Projects in this category should develop content to educate students or the wider public on energy literacy. Examples include:

Short courses on energy grid electrification skills.

Public exhibitions demonstrating complex elements of the energy transition. This category supports early-career researchers and PhD students pursuing interdisciplinary projects with clear pathways to industry impact.

Applications that propose external industry input and/or multi-discipline supervision will be highly regarded.

Prototype Development or Idea Protection

Funding is available for developing prototypes or protecting intellectual property related to innovative solutions in the energy space.

This can include using lab resources to develop and test new technologies or methodologies.

Key Dates

Wednesday 30th October

Information Session Webinar, 3:30pm - 4:15pm

Click to Register

Friday, December 20th

Application Deadline, 11:59pm AEDT (Sydney/Canberra time)

January 2025

Funding Decisions Announced

How to Apply



Applicants should submit their proposals via our <u>online application form</u>. The application questions are below so you can prepare your proposal in advance of filling in your application.

For assistance with your application or to discuss your project, please contact us at dgfi@unsw.edu.au.

Application Questions

1. Project Title (maximum 15 words)

2. What specific problem or challenge is your project addressing? (Think of this as a problem statement)

3. How will your project address this problem and what is the core solution or innovation?

4. What are the tangible outputs or outcomes you expect to achieve from this project? (These will make up the key deliverable(s) of your project)

5. What stakeholders will benefit from your project, and how will they be involved in the project?

6. What are the potential risks to your project, and how do you plan to mitigate them?

7. What is the budget required for your project?

8. How will the funds be allocated to support different aspects of your project (e.g., materials, personnel, equipment)? (A sample budget here would be beneficial)

9. File Upload (Optional - you may use this for any supporting documentation)

You will also need to fill in information about yourself and your lead investigators:

- 1. Full Name
- 2. zID
- 3. Email address
- 4. Title or Category (ECA, ECR, PhD, Professional Staff, etc)
- 5. Faculty
- 6. School or Centre
- 7. School Manager or Finance Contact
- 8. Email address of Finance Contact

9. Information of your Lead Investigators: Name, zID, Email, Title/Category, School/Centre

Apply here