

# Industry PhD or Masters Scholarship Optical Engineering or Physics

- Development of micro-optics and electronics for lasers
- Industry placement with a leading defence industry partner
- \$30,000 p.a. for up to 3 years (full-time, fixed term)

## Opportunity

This rare opportunity will offer the successful candidate the ability to work across industry and academia to solve a real-world problem. Are you someone who wants to develop greater academic knowledge whilst applying this to an industry problem? Do you want to embed within academia and industry simultaneously? This position offers the best of both worlds.

## The Optical Sciences Centre

The Optical Sciences Centre is dedicated to pursuing excellence and impact through world-leading research, focusing on both fundamental and applied areas of optical sciences and related areas. Led by Professor David Moss (Director) and Professor Chris Vale and Professor Saulius Juodkazis (Deputy Directors), our centre incorporates staff from the previous Centre for Micro-Photonics and Centre for Quantum and Optical Science to create one of the largest optical research facilities in Australia. Our vision is to conduct research and development across the full spectrum of research engagement and translation. From fundamental studies in the way light interacts with matter, through to the development of technologies for market, we foster cross-disciplinary collaborations that address scientific challenges in fields encompassing classical and quantum photonics, light-matter interactions, nanotechnology, biomedical and biosciences, quantum gases and quantum materials.

## About the Scholarship(s)

We are looking for candidates to develop an integrated micro-optical laser system for energy delivery into small volumes. The candidate has the option to be closely integrated with a key defence industry partner, located in Melbourne, Australia.

## Eligibility Criteria

- Essential: Strong physics and optics background;
- Highly desirable: Experience in optical design, especially with lasers;
- Desirable: Experience in electronics prototyping;
- Desirable: Experience with lasers and laser safety;
- Desirable: Experience with semiconductor processing methods;

## To be eligible for this scholarship, you will need:

- First-class or 2A honours, or a Masters by research in engineering/science;
- Analytical thinking, data analysis and critical problem-solving skills;
- Excellent time management skills and ability to work independently;
- Ability to work as part of a multi-disciplinary research team;
- Evidence of good oral and written communication skills;
- Applicants with publications will be highly regarded.
- Must meet Swinburne's entry requirements for the Doctor of Philosophy or Masters program;
- Australian citizen or permanent resident,

- Ready to commence in 2022.
- Eligibility for a baseline security clearance

**Application closing date**

Applications will close when the successful candidate has been appointed.

**Commencement date**

As soon as the applicant is selected.

**Enquiries**

Professor Saulius Juodkazis - [sjuodkazis@swin.edu.au](mailto:sjuodkazis@swin.edu.au)

**Terms and conditions**

Governed by Swinburne Research Scholarship Terms and Conditions. <https://www.swinburne.edu.au/courses/applying/how-to-apply-research-degree/entry-requirements/>

All appointments are subject to hold and maintain a valid Working with Children's Check.

If you require support due to special needs or alternate considerations, please contact our Diversity Manager Maree Norden, on [inclusion@swin.edu.au](mailto:inclusion@swin.edu.au) . For support or queries related to Aboriginal and Torres Strait Islander employment, please contact Tim Werner on [DeadlyCareers@swin.edu.au](mailto:DeadlyCareers@swin.edu.au).

**How to apply**

Start your application by emailing your cover letter, CV, and statement addressing selection criteria to [sjuodkazis@swin.edu.au](mailto:sjuodkazis@swin.edu.au).

***Applications close when the successful candidate has been chosen.***