UNSW Institute for Cyber Security

ifcyber.unsw.edu.au

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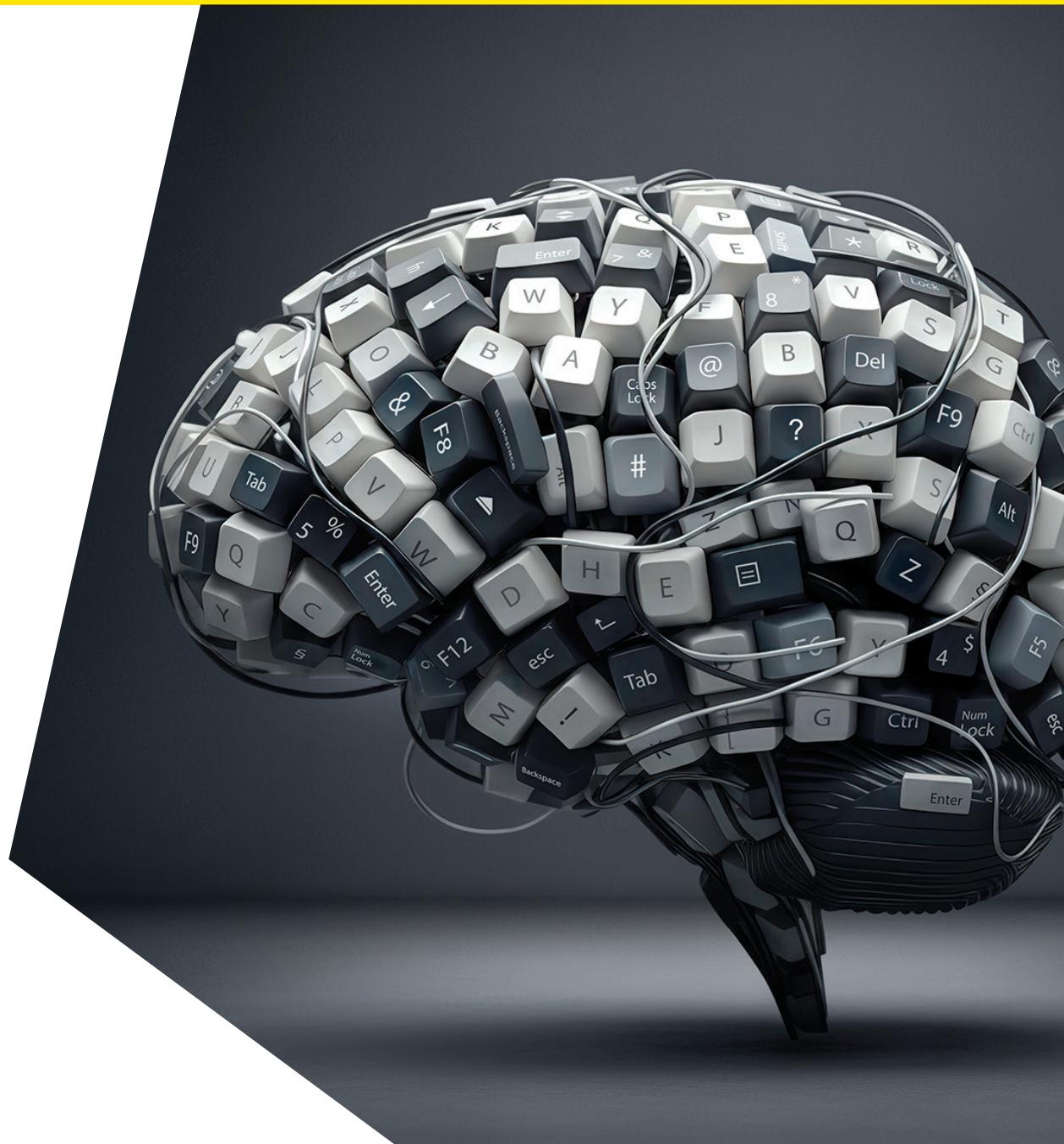
Introduction

The UNSW Institute for Cyber Security (IFCyber), brings together expertise across technical, policy and human dimensions of cyber security with strong links to government, industry and international partners. Our mission is to advance research and practice that strengthens Australia's resilience in an increasingly contested digital environment, while supporting the development of trusted technologies and secure systems that serve the needs of society.

What We Do

We bring together experts in computer science, policy, engineering, law, design, and the social sciences to address the complex challenges of cyber security by:

> Advancing research and innovation: From cryptography and AI/ML security to hardware resilience and human behaviour, our unique research has real-world outcomes.

> Shaping policy and legislation: We provide evidence-based insights to inform cyber security policy, regulation, and legal frameworks.

> Building capability: We deliver targeted and specialised master classes for professionals, government, and industry.

> Developing partnerships: We collaborate with government, industry and global universities to bring the best thinking to bear on real-world cyber security problems.

> Engagement: We use our convening power to bring people together across government, industry, academia, and civil society. We host public events, closed workshops, and strategic dialogues creating trusted spaces for discussion.

Research Pillars

Building Trusted Systems from Untrusted Components

Global supply chains mean organisations increasingly rely on hardware and software built elsewhere. IFCyber researches how to mitigate risks and establish trust in systems that depend on externally developed components, ensuring resilience even when every component cannot be guaranteed secure.

Cyber Security in Space

As satellites and space infrastructure underpin communications, navigation, and defence, securing them is critical. IFCyber brings together space engineering and cyber security expertise to protect satellites and ground stations.

Cyber Security as Statecraft in the Indo-Pacific

Cyber security is not only about defending networks - it underpins human security. IFCyber researches how to design community-driven cyber security interventions that support disaster response, economic stability, and digital inclusion, while strengthening regional resilience.

Privacy, Identity and Trust in Marginalised Communities

Not all communities experience technology in the same way. IFCyber conducts applied research to address the real-world privacy and identity challenges faced by under-represented and marginalised groups, helping to build digital systems that are inclusive, respectful, and trusted.

### Cyber Deception and Active Cyber Defence

Traditional defences often leave organisations one step behind attackers. IFCyber explores ways to move from reactive to proactive cyber defence, using deception and adversary engagement to detect, disrupt, and deter malicious activity before it can cause harm.

Cyber Security and Artificial Intelligence (AI)

Artifical Intelligence/Machine Learning and cyber security are deeply intertwined. AI/ML systems must be secured and IFCyber is researching how to help organisations procure, implement and manage AI/ML in safe and trustworthy ways.

Why Work with IFCyber?

> Integrated expertise that connects technology, people and policy, enabling us to tackle the most complex challenges in cyber security

> Real-world impact through advisory roles, case studies, and thought leadership.

> Helping to build sovereign capability to strengthen Australia's position in global cyber security.

> Human-centred approaches that emphasise dignity, inclusion, and trust in digital systems.
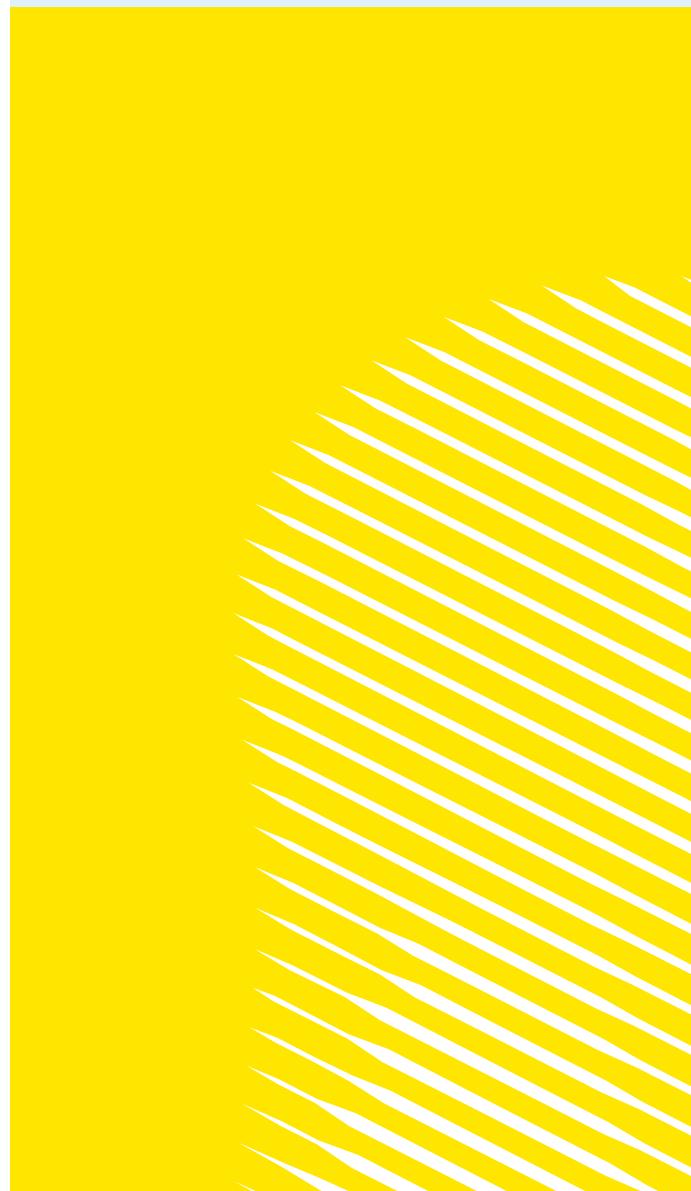
Get Involved

There are many ways to work with IFCyber:

> Partner on research projects

> Attend our events and policy dialogues

> Participate in our competitions, workshops, and masterclasses

> Engage with our network of world-leading experts

Contact Us

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