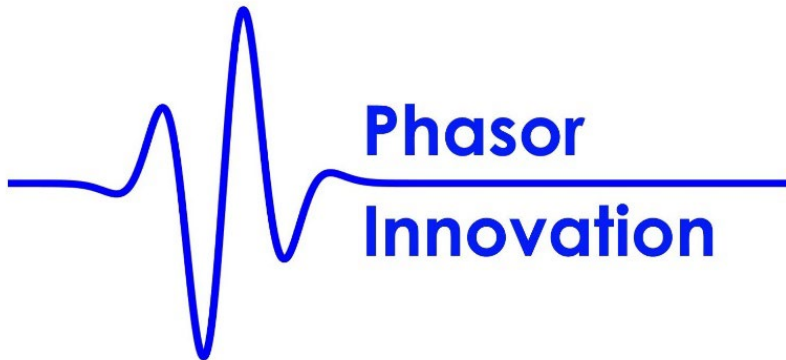


Phasor Innovation Pty Ltd

<http://www.phasorinnovation.com>



Phasor Innovation is an Australian owned technology company based in Melbourne. Our team of scientists and engineers provides design and consulting services, as well as conducting cutting edge research & development in electronic warfare (EW) and quantum technologies.

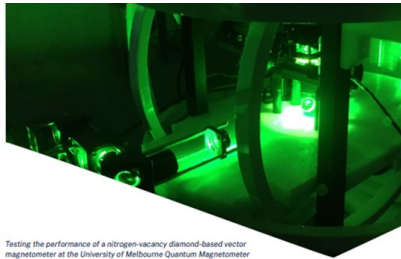
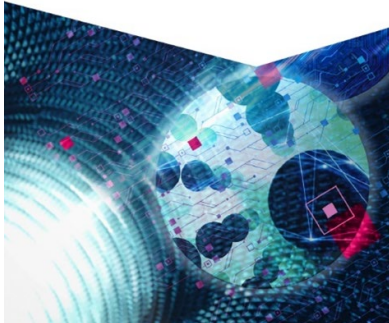
Phasor Innovation has a reputation for providing innovative solutions to challenging problems in the RF/Microwave, electromagnetics, antenna, EW and quantum areas. We work predominantly in the defence sector, with projects in the land, sea, and air domains. Together with our partner universities, we are developing the next generation of quantum sensors for the defence, mining, industrial and healthcare sectors.



National Quantum Strategy

Building a thriving future with Australia's quantum advantage

| industry.gov.au/quantum



Testing the performance of a nitrogen-vacancy diamond-based vector magnetometer at the University of Melbourne Quantum Magnetometer Test and Measurement Facility. Credit: Chris Lew, University of Melbourne

Case study: Transitioning from the lab to future applications

Phasor Innovation is an Australian quantum business specialising in:

- radio frequency and microwave engineering
- electromagnetics
- system integration
- quantum technologies.

Phasor Innovation is collaborating with the University of Melbourne and RMIT University on researching and developing the next generation of diamond-based quantum sensors. There are a range of new and emerging applications for this technology in many areas including the defence, mining, space and medical sectors.

The collaborative university and industry team successfully competed in the inaugural Army Quantum Technology Challenge in 2021, and are currently working together on a subsequent project to design, construct, test and evaluate a quantum diamond-based vector magnetometer that will provide improved surveillance and detection of subterranean targets. The team has also received funding from Defence to further develop the technology for precision magnetic navigation in GNSS-denied environments.

Defence Science and Technology

OUTLOOK

2023

OPENING INTERVIEW

Professor Tanya Monro

Chief Defence Scientist

ARTICLES

Defence's Science and Technology Strategy 2030: More, together

DSTO reimagines for future challenges

Continued scientific knowledge transfer, and Australia's emerging ecosystem

High Performance Computing Centre

ARTICLES

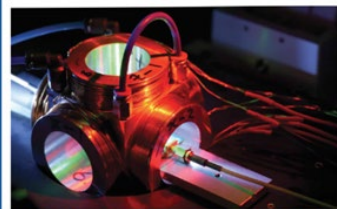
The technology and ethics of using autonomous systems

Helping Defence secure the high ground in space

Defence Trailblazer

STEM and the future workforce

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Quantum diamond magnetic field sensors for improved situational awareness

Better situational awareness is critical to national security and defence. Quantum diamond-based sensors can provide a significant advantage in this regard. These sensors are capable of detecting magnetic fields with unprecedented precision, allowing them to identify and track objects that are otherwise invisible. This technology has the potential to revolutionise defence operations, providing a significant advantage in the field of defence. The Quantum Diamond Magnetometer is a key component of this technology, and its development is a priority for the Australian Government. This technology has the potential to revolutionise defence operations, providing a significant advantage in the field of defence. The Quantum Diamond Magnetometer is a key component of this technology, and its development is a priority for the Australian Government.