

## PROFILE

Curtin University is an innovative, global university known for its high-impact research, strong industry partnerships and commitment to preparing job ready graduates for the future. As a university with an established reputation for innovation, Curtin excels in a diverse range of research areas that aim to make tomorrow better for people all over the world.

## CAPABILITIES

Curtin University is a Defence Industry Security Program accredited university closely working with defence, industry, and government stakeholders in delivering high impact research programs to build our sovereign National Resilience and Security, these include:

### BUILD AND SUSTAINMENT

- Materials forensics and regulatory/safeguards
- Platform engineering, optimisation, and asset management
- Condition monitoring, corrosion, and biofouling
- Advanced/additive manufacturing, material characterisation

### TEACHING AND WORKFORCE DEVELOPMENT

- Talent pipeline, recruitment, retention, and pathways
- Defence Nexus Program (student engagement in defence careers)
- Industry micro-credentials (Intro to Defence, Nuclear Powered Subs, Safety Cases)

### SPACE, MARITIME AND SITUATIONAL AWARENESS

- Advanced space, land, and undersea sensing
- Integrated detection models and algorithms
- integrated intelligence, and enhanced decision-making
- Maritime acoustics, and mapping
- Quantum sensing and technologies

## DISCRIMINATORS

- Largest university in Western Australia,
- Global Campuses in Malaysia, Colombo, Singapore, Dubai, and Mauritius
- Globally recognised expertise in critical minerals and resources, additive manufacturing and corrosion maintenance
- Strong industry and government partnerships
- End-to-end capability from research to commercialisation
- Industry-connected innovation and workforce development
- Close proximity to major industrial and defence precincts

### MATERIAL SCIENCES AND CRITICAL RESOURCES

- Critical minerals and sovereign supply chains
- Advanced materials and downstream processing
- Energy transition and decarbonisation technologies
- Defence energy security and industrial resilience

### ROBOTICS AND AUTOMATION SYSTEMS

- Autonomous remote systems and swarming
- Uncrewed maritime systems
- Optimisation, sensor fusion, and data analytics to enhance maritime environments

### DATA SCIENCE, DECISION SYSTEMS AND EMERGING TECHNOLOGIES

- RF signal processing and intelligence
- Advanced system software architectures
- Secure hyperscale native cloud collaboration platforms (Nebula)
- Human-robot interaction, trusted systems status, and AI skilling
- AI-driven decision-making and adaptive control



