In Engineering and Technology, UNSW is ranked 21 in the QS World University Rankings.

Our University is a member of the prestigious Group of Eight, Universitas 21, Global Alliance of Technological Universities, Association of Pacific Rim Universities and PLuS Alliance.

Our alumni enjoy the highest median starting salaries after graduation, going on to carve out remarkable careers that effect real change in the world. Our graduates located in over 140 countries around the world are shaping Australia and the international community as leaders in defence, government, and industry.

Unique Research Facilities
Impact dynamics lab including a two stage light-gas gun capable of launching projectiles at 4.5km per second, the fastest in the southern hemisphere.
Space assembly, integration and verification facilities including a thermal vacuum chamber.
High-speed flow facilities including hypersonic shock tunnel and supersonic blowdown wind tunnel.
Cyber range.
Indoor Unmanned Aerial Vehicles flight range.
Dedicated mechanical and electronics workshops.

Research Partners
Collaborations with leading Australian and overseas universities, government departments and agencies, and industry.

Professional affiliations
Our staff are affiliated with the leading professional bodies in Engineering and IT. These include Fellows of the IEEE, the International Information Systems Security Certification Consortium and the Royal Aeronautical Society.

Accreditations
Our engineering programs are accredited by Engineers Australia.

Research Staff
2,733
UNSW
114
SEIT
*as at 2019

HDR Completions
834
UNSW
29
SEIT
*as at 2018

Research Publications
9,984
UNSW
545
SEIT
*as at 2017
## Enrolments

<table>
<thead>
<tr>
<th>Level</th>
<th>Majors</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>Undergraduate</td>
<td>CIVIL ENGINEERING</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>ELECTRICAL ENGINEERING</td>
<td>135</td>
</tr>
<tr>
<td></td>
<td>MECHANICAL ENGINEERING</td>
<td>74</td>
</tr>
<tr>
<td></td>
<td>AERONAUTICAL ENGINEERING</td>
<td>116</td>
</tr>
<tr>
<td></td>
<td>COMPUTING &amp; CYBER SECURITY</td>
<td>51</td>
</tr>
<tr>
<td></td>
<td>TECHNOLOGY AERONAUTICAL ENGINEERING</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>TECHNOLOGY AVIATION</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>DOUBLE DEGREE AERONAUTICAL ENGINEERING / SCIENCE</td>
<td>2</td>
</tr>
<tr>
<td>Postgraduate</td>
<td>PROJECT MANAGEMENT</td>
<td>317</td>
</tr>
<tr>
<td></td>
<td>SYSTEMS ENGINEERING</td>
<td>219</td>
</tr>
<tr>
<td></td>
<td>ENGINEERING SCIENCE</td>
<td>30</td>
</tr>
<tr>
<td></td>
<td>CAPABILITY MANAGEMENT</td>
<td>54</td>
</tr>
<tr>
<td></td>
<td>CYBER SECURITY / OPERATIONS</td>
<td>284</td>
</tr>
<tr>
<td></td>
<td>SPACE ENGINEERING / OPERATIONS</td>
<td>67</td>
</tr>
<tr>
<td></td>
<td>DECISION ANALYTICS</td>
<td>18</td>
</tr>
<tr>
<td>Higher Degree Research</td>
<td>CIVIL</td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>ELECTRICAL</td>
<td>34</td>
</tr>
<tr>
<td></td>
<td>MECHANICAL</td>
<td>20</td>
</tr>
<tr>
<td></td>
<td>AERONAUTICAL</td>
<td>15</td>
</tr>
<tr>
<td></td>
<td>COMPUTER SCIENCE / CYBER</td>
<td>52</td>
</tr>
<tr>
<td></td>
<td>PROJECT MANAGEMENT</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>SYSTEMS ENGINEERING</td>
<td>3</td>
</tr>
<tr>
<td></td>
<td>PROFESSIONAL DOCTORATE</td>
<td>8</td>
</tr>
<tr>
<td></td>
<td>MASTERS</td>
<td>9</td>
</tr>
</tbody>
</table>

## Education Programs

### Undergraduate Engineering, Technology and Science Majors
- Bachelor of Aeronautical Engineering (Hons)
- Bachelor of Civil Engineering (Hons)
- Bachelor of Computing and Cyber Security
- Bachelor of Electrical Engineering (Hons)
- Bachelor of Mechanical Engineering (Hons)
- Bachelor of Technology (Aeronautical)
- Bachelor of Technology (Aviation)
- Bachelor of Science (Majors)

### Postgraduate Coursework and Professional Doctorate Programs
- Master of Capability Management
- Master of Decision Analytics
- Master of Cyber Security
- Master of Cyber Security Operations
- Master of Engineering Science
- Master of Project Management
- Master of Space Engineering
- Master of Space Operations
- Master of Systems Engineering
- Professional Doctorate Programs

### Research and Innovation
- Higher Degree Research Students
- Research Scholarships
- Contract Research
- Postdoctoral Fellowships
- Consulting and Industry Engagement
- Community Outreach
Strategic Themes

TECHNOLOGY
DECISION MAKING

AEROSPACE
ENGINEERING

ENGINEERING FOR RESILIENCE
Infrastructure Geotechnics, Structures under Extreme Loading, Civil Engineering, Impact Dynamics, Advanced Materials

CYBER SECURITY
Research Focus Areas

**Advanced Electromagnetics**
The Advanced Electromagnetics group combines expertise in nanophotonics, metamaterials, quantum optics, optical coherence, and machine learning to drive these innovations.

**Advanced Materials and Impact Dynamics**
Research work in the fields of Advanced Materials and Impact Dynamics is carried out in the areas of advanced composite materials and structures, metamaterials, novel materials for photonics, materials for nano-antennas, and impact dynamics.

**Control**
We provide unique world-class expertise in quantum, stochastic and robust control theory and applications in nanotechnology, power systems and control of networked systems.

**Hypersonics**
We combine analytical, numerical and experimental expertise to investigate fundamental and applied high-speed flow phenomena and inform vehicle design and development.

**Imaging**
The Imaging group conducts research into areas of interest that include but are not limited to real-time imaging for UAV’s, classification and compression of hyperspectral imagery, 2D/3D medical image registration, algebraic reconstruction techniques, video compression and adaptive optics.

**Optimisation and Design**
We develop advanced modelling and efficient optimization and computational approaches to solve complex real-world design and decision-making problems.

**Trusted Autonomy**
We break silos in artificial intelligence, cognitive science, data sciences, decision sciences, human-machine teaming, testing, and unmanned platforms to research and develop trusted autonomous systems.

**Emerging Research Strengths**
The Values in Defence and Security Technology (VDST) group aims to be the global leader in the value dimension of weapons and security engineering research and analysis.
Associated Research Centres

UNSW Canberra Cyber
UNSW Canberra Cyber is a multi-disciplinary UNSW centre in cyber security, hosted by SEIT, which contributes research and teaching expertise in cybersecurity technologies. UNSW Canberra Cyber provides teaching to SEIT cybersecurity programs utilising its cyber range.

Capability Systems Centre
The Capability Systems Centre undertakes research and education in a range of disciplinary areas relevant to the delivery of capability systems: systems thinking, complex systems, system of systems, systems engineering, requirements engineering, and project management.

UNSW Canberra Space
UNSW Canberra Space contributes a range of research strengths and capabilities including expertise in spacecraft design, assembly, integration and verification; autonomous control; sensor development; orbital tracking and communications and high-speed and low-density flows.

The Centre for Quantum Computation and Communication Technology
SEIT hosts a node of CQC2T in which our academics co-manage the Hybrid photonic qubit program, and contribute to photonic quantum non-Gaussian processing, quantum-enhanced measurement and estimation, and quantum communication.
Engage your future with the School of Engineering and Information Technology

The School of Engineering and Information Technology (SEIT) is the largest school at UNSW Canberra, with over 100 academics producing the academic excellence, in both teaching and research that is inherent to the University of New South Wales.

Four strategic themes flow through everything we do in SEIT: Aerospace Engineering, Cyber Security, Engineering for Resilience, and Technology Decision Making. These themes shape all of our efforts from our three and four-year undergraduate offerings to our internationally recognised research. The School offers research-informed undergraduate and/or postgraduate programs in aeronautical, civil, electrical, mechanical, space and systems engineering as well as in aviation, computing & cybersecurity, and project management. Our students are the professionals who will be Australia’s future technology decision makers. Our academic programs are enhanced by the School’s contributions to leading research and innovation, with world-class capabilities in areas such as Advanced Materials & Impact Dynamics, Control Engineering, Hypersonics, Optimisation & Design, Advanced Electromagnetics and Trusted Autonomy. SEIT hosts the Capability Systems Centre, UNSW Canberra Cyber, a node of the Centre for Quantum Computation and Communication Technology, and UNSW Canberra Space.

The School has seen significant increase in research impact in recent years with over 545 publications added to the Higher Education Research Data Collection in 2017. Our academics regularly publish in high-impact journals in their respective areas ranging from the best discipline-specific publications from institutions such as the IEEE, AIAA, the American Physical Society and Nature.

Our researchers collaborate with many of the leading international institutions and agencies in their fields, and we receive research funding from a range of government sponsors including the Australian Research Council, Defence Science and Technology Group, and the United States Air Force. We also have numerous ties with industrial partners that lead to commercialisation of our research portfolio.

There are over 160 PhD research students from 30 nationalities studying degrees across all of our disciplines. We have nation leading scholarship schemes that attract outstanding PhD candidates from Australia and abroad.

UNSW Canberra graduates and scholars shape Australia, the region, and the international community as leaders in Defence, as well as government, academia and industry. I encourage you to explore the opportunities to collaborate with us through study, research activities and partnerships.

Scott Tyo
Head of School
Visit: seit.unsw.adfa.edu.au

The School of Engineering and Information Technology
The University of New South Wales at the Australian Defence Force Academy
Northcott Drive, Canberra ACT 2600, Australia
Cricos Provider Code: 00098G