Wellington Faculty of
Engineering
TE WĀHANGA AHUNUI PŪKAHA
“Wellington is the ideal place for in-depth technology research. The University’s Computational Media Innovation Centre enables technology research students like me to pursue entrepreneurship in the interactive media industry.”

Betty (Hyejin) Kim
Student, Master of Science in Computer Graphics

The state-of-the-art Computational Media Innovation Centre provides postgraduate Computer Graphics students at Te Herenga Waka—Victoria University of Wellington access to world-leading researchers as well as local and international industry leaders.
Welcome

Do you want to make the next major breakthrough in technology, create devices that save lives, or help build the next blockbuster film? Are you someone who thrived on the challenge of undergraduate study? Do you want to push yourself to become an expert in your field?

If so, welcome to the Wellington Faculty of Engineering—where we have a range of postgraduate opportunities for you.

Te Herenga Waka—Victoria University of Wellington is New Zealand’s number one-ranked research university, and our professors lead world-class research in a number of areas: artificial intelligence, computer graphics, cybersecurity, mechatronics, software engineering, and renewable energy. Postgraduate research in our Faculty allows you to work with, and learn from, experts in the field who are constantly extending the boundaries of modern engineering knowledge.

The Faculty prides itself on its collegiality and support systems for postgraduate students. Our experienced, international staff are passionate about supporting students to follow their natural curiosity into new areas of study and research. We also have close collaborative ties with researchers in other faculties and schools at the University, such as Design, Mathematics and Statistics, Music, Psychology, and Science, all of which foster exciting, high-impact research.

Wellington is a city buzzing with development in the ICT and technology sectors, driving an industry that is constantly changing. The Faculty has established links with leading businesses and sought-after professionals locally and internationally, including Weta Digital, Xero, and Google. Whether academia or industry is your goal, we have the connections to help you get there. Our alumni pursue amazing careers all over the world.

We offer a full range of postgraduate courses across the School of Engineering and Computer Science, the Computational Media Innovation Centre, the Robinson Research Institute, and the Wellington ICT Graduate School. The courses are either taught or research based, one year or three years in length, industry or academically focused, and for those with prior technology experience or without. See what we have to offer, and set yourself up for a rewarding, enjoyable future where you can make a real difference.

Noho ora mai.

Professor Dale Carnegie
Dean of Engineering
STUDYING AND LIVING IN WELLINGTON

LIFE ON CAMPUS
Te Herenga Waka—Victoria University of Wellington has three city campuses: Kelburn, Pipitea, and Te Aro. The Kelburn campus is the centre of your first-year experience, with lively social spaces in the Hub where you can catch up with study, grab a coffee, eat lunch, or hang out with friends.

Everything you need is on campus—there’s a good choice of cafés, a bookshop, pharmacy, and money machine, as well as the Adam Art Gallery, an award-winning building housing a changing programme of exhibitions. The campus also includes a new, state-of-the-art science block.

LIVELY, CREATIVE CAPITAL
Wellington has something for everyone, with great shopping, beaches, mountain bike trails, galleries, museums, restaurants, and the best café culture in the country. Head to the coast, just a short drive from the city, to swim, surf, or sail. Enjoy the vibrant nightlife of the central city and check out the night markets, festivals, and theatre and live music shows every night of the week.

CAPITAL THINKING
Come and experience the benefits of the University’s strong connections with government, business, and the country’s top scientific, cultural, and creative organisations.

As the capital city, Wellington is home to many national organisations and treasures, including Parliament, Te Papa Tongarewa, the Supreme Court, the National Library, Zealandia, and the New Zealand Film Archive, as well as the highest concentration of science organisations in New Zealand.

MAKING CONNECTIONS
The University operates at the interface between business, innovation, and regulation. We have strong connections with political, public sector, legal, diplomatic, cultural, scientific, corporate, community, media, and non-governmental organisations.

Our capital city connections mean students have excellent opportunities for part-time work, volunteering, and internships, as well as networking for jobs once they graduate.

GLOBALLY MINDED
Come and be part of a truly international community right in the heart of our thriving capital city. Our programmes and research focus on New Zealand, the Asia-Pacific region, and the world. Opportunities for international experiences and knowledge continue outside the lecture theatres—you can go on exchange to more than 100 different universities and get involved with the Wellington International Leadership Programme.

AWARD-WINNING EDUCATORS
Teaching staff who care about your future will help make your time at the University a success. Most courses include tutoring in small groups, where you can discuss your ideas, ask questions, and get individual help. A number of our staff have won National Tertiary Teaching Excellence awards for innovative teaching.

CHOICE AND FLEXIBILITY
We pride ourselves on giving our students freedom to choose their own path through study. University is a time to explore your interests, and our flexible degree structure means you can try out new subjects and discover where your passions lie.
If you want to take the next steps in your professional career in the hi-tech industry and research community, you’ll find a warm welcome and a supportive and stimulating environment in the School of Engineering and Computer Science at Te Herenga Waka—Victoria University of Wellington.

Our focus on digital technology will provide you with all the skills and experience you will need in the modern workplace and research labs.

**LEARN FROM, AND ALONGSIDE, THE BEST**

Our highly experienced, international staff have wide networks in research and industry and are actively engaged in internationally recognised, ground-breaking research here at New Zealand’s number-one-ranked university for research.

Not only are our researchers constantly extending the boundaries of modern engineering, computer science, computer graphics, and renewable energy systems, they are passionate about supporting students to follow their curiosity into new areas of study and research.

As New Zealand’s capital city university, we enjoy the benefits of a wonderful landscape and lifestyle, contacts and collaborations with government, national research funders, and world-class industry. We are a School that prides itself on its collegiality and multidisciplinary collaborations with many international and local top-ranked research clusters.

Our research groups provide a collaborative and encouraging support network, and our postgraduate students regularly present their work at prestigious conferences.

**CUTTING-EDGE FACILITIES**

Our postgraduate students have access to state-of-the-art equipment and laboratories, situated in the Alan MacDiarmid, Cotton, and Mary buildings on the University’s picturesque Kelburn campus, with enviable views over the city and Wellington harbour.

**STUDY OPTIONS**

We offer a range of postgraduate study options suited to your interests and ambitions—from coursework-based degrees that allow you to learn in a structured environment from knowledgeable and world-leading staff to thesis-based options where you will have the opportunity to join, and contribute to, established research projects, or follow your own interests and forge a new path. Our future-focused postgraduate qualifications see our graduates placed at the forefront of an exciting growth industry.

**RESEARCH GROUPS AND CENTRES**

We have a number of established research hubs that you can join as a postgraduate student, from smaller informal groups that are working collaboratively to extend the boundaries of our knowledge in key areas to larger industry-linked research centres that offer opportunities for supervision—see the Faculty’s research centres on the following pages.
One of the University’s newest research centres, the Computational Media Innovation Centre (CMIC), was launched in 2018 with the aim of strengthening New Zealand’s capability in interactive and immersive media through academic research.

The Centre also incubates potential start-ups and entrepreneurship pipelines, placing it at the forefront of an emerging global digital-media market, and works to develop links with a variety of renowned international companies and institutes for digital media, service, and platforms, including gaming, anime, film visual effects, virtual and augmented reality, digital simulation and training, and media interfaces and devices.

In early 2019 it moved into new premises in downtown Wellington. The space has been custom designed to support collaboration, innovation, and a high-quality research and student experience—including direct connections with industry—as well as attracting top local and international talent to the city.

ACADEMIC RESEARCH

Our research expertise spans computational science, including computer graphics, computer vision, virtual and augmented reality, machine learning, and applied mathematics.

Technological innovation is at the heart of what we do—we are committed to advancing new and existing products, pushing the boundaries of what’s currently possible in the realm of interactive media.

RESEARCH FOR INDUSTRY

We undertake research in collaboration with our industry partners to support emerging media relating to computer graphics and interactive and immersive technologies. Our goal is to create links between academia and industry, advancing digital products on the global market through research findings discovered here in New Zealand.

POSTGRADUATE STUDY OPPORTUNITIES

There are opportunities to join the Centre as an Honours, Master’s, or PhD student.

You’ll work in our state-of-the-art facilities, gain practical hands-on experience, and have the chance to work alongside a renowned team of researchers making genuine advances in the field of computational media.

RESEARCH AND PROTOTYPING TEAM

The CMIC houses a research and prototyping team that includes three internal groups. Comprised of staff and researchers, the team’s core responsibility is to identify pathways from concepts to ready-for-the-market products. The three groups that form part of the research and prototyping team are the computational media solution (CMS) group, the user experience and extended reality (UXR) group, and the advanced media prototyping (AMP) group.

The CMS group develops computational solutions to innovate digital media technology. The UXR group designs and evaluates new user experiences for immersive and interactive media, such as virtual and augmented reality, while the AMP group prototypes future media platforms and services to foster new media business.

Our research expertise spans a whole range of areas, from computer graphics and computer vision to image and video processing, from machine learning, virtual and augmented reality and 3D user interface to immersive user experiences and human-computer interactions. Our diverse background enables us to address challenges in multidisciplinary research and commercialisation, as well as collaborating with key stakeholders in the University. We work closely with all our research and thesis students to produce cutting-edge research outcomes and product-ready prototypes for commercialisation and start-up opportunities.

MEET OUR DIRECTORS

Associate Professor Taehyun Rhee

Associate Professor Taehyun Rhee is the founder of mixed reality start-up DreamFlux, founder and director of the University’s computer graphics lab, and founding member of the Computer Graphics programme, established in collaboration with Weta Digital. Before joining the University, he held roles at Samsung, including as a principal researcher and leader of computer graphics and medical physics. He won the Baldwins Researcher Entrepreneur Award at the KiwiNet Research Commercialisation Awards 2018.

Professor Ken Anjyo

Professor Ken Anjyo set up and headed the research and development (R&D) division of OLM Digital, the Tokyo production company famous for the Pokémon movies as well as for 3D animated feature films, and is now its executive R&D adviser. He is also the director of the advanced research group at Imagica Group, Tokyo. He chaired ACM SIGGRAPH Asia 2018, one of the largest conferences on computer graphics and interactive techniques, and co-founded the ACM Digital Production Symposium.

www.wgtn.ac.nz/cmic
The Robinson Research Institute is recognised worldwide as a pioneer and leader in high-temperature superconductivity (HTS) research and application. The immersive environment offers our students the opportunity to learn from and interact with the world’s leading experts and companies, making our graduates highly sought after by global industry. Our alumni are leading figures in transnational high-technology companies. With applied superconductivity laboratories that are among the best equipped in the world, our research programme encompasses a wide range of projects in electromagnetic technologies and materials science and engineering, which are typically supported by either government or industry investment.

Our multidisciplinary research team brings together expertise in innovative engineering, applied physics, and materials science to research, build, and commercialise advanced technologies with partners, both internationally and within New Zealand.

COLLABORATIVE RESEARCH
Collaboration drives much of our research. We work with world-leading researchers from both academia and industry, combining our science and engineering expertise to solve problems and develop new high-value products. These research partnerships are wide-ranging, from fusion, space technologies, and high-speed rail through to new applications for magnetic sensors and creating better energy-storage devices.

- Superconducting power systems: Our work on ultra-efficient aircraft, trains, wind turbines, flywheels, generators, compact fusion technologies, and transformers is helping to reduce energy waste and creating renewable energy solutions.
- Magnet systems: The magnet group developed the very first high temperature superconducting MRI system. They develop cryogen-free superconducting magnet systems for magnetic resonance (MRI/NMR) and other applications that enable next generation portable, rapidly deployed, and ultra-precise healthcare solutions.
- Magnetic sensors: Magnetic sensors have myriad uses, from infrastructure inspection to traffic management. Our industry-led research is exploring cutting-edge new applications.
- Space technologies: We are at the forefront of delivering a step change in space-propulsion using ultralight, sustainable, and efficient superconducting systems. We are developing the next generation of satellites, utilising HTS technologies that will enable the space industry revolution.
- Fundamental science: Our materials physics team undertakes fundamental research into novel electronic systems—superconductors, spintronics, and hybrid materials. This underpins and guides several of our industrial research programmes.
- Zero-CO₂ metals: Metal production is the world’s largest industrial source of CO₂ emissions. Our materials team is developing new chemical processes to eliminate CO₂ emissions from the production of industrially essential metals such as iron and vanadium.

POSTGRADUATE STUDY OPPORTUNITIES
We welcome students from universities and technology institutes around the world.

Our Master’s and PhD projects are based around our existing applied and fundamental research programmes. Research projects are tailored to the skills and needs of an individual student and span mechanical, mechatronic, and electrical engineering, physics, and materials science and engineering.

As a postgraduate student with us, you’ll be an integral part of our project teams and experience a mix of practical problem-solving and academic learning, working alongside our world-class scientists and engineers. Students undertake real discovery work and make genuine scientific and engineering advances, which make it possible for industry to develop new products and processes. The unique practical experience we offer students is highly sought after by employers in New Zealand and overseas who are looking for graduates with practical skills in engineering implementation as well as recognised academic qualifications.

Graduates who have studied with us often find their experience in project management sees them advance to leadership positions within industry and the research community. Master’s and PhD students can apply to study within any of the disciplines pursued at the Robinson Research Institute. Scholarships are available through the Wellington Doctoral Scholarship scheme, and other funded project scholarships may also be available. Check our website for up-to-date details.

Email Dr Chris Bumby or Dr Sergei Obruchkov at rri-postgrad@vuw.ac.nz for more information.

www.wgtn.ac.nz/robinson
The Wellington ICT Graduate School is an initiative led by Te Herenga Waka—Victoria University of Wellington to create direct pathways from education into employment. We partner with local technology businesses to provide guest lectures, workshops, mentorships, and projects for our students so they can gain the experience needed in real-life work environments. Some of our partners include ANZ, Catalyst IT, Chorus, the Ministry of Education, Spark, Wellington City Council, and Weta Digital.

Everyone has to start somewhere and have their own personal career journey. We recognise this and build upon people’s existing talents and skills. Some of our postgraduate programmes are ‘conversion’ programmes, meaning they are created for people from non-ICT backgrounds. Open to anyone with a Bachelor’s degree or equivalent experience, they allow people to change career directions without having to start from scratch.

Our students come from varied backgrounds, from veterinarians to linguists and musicians, who are now expanding their skill sets. Not only do we offer industry-relevant experience and fast-tracked learning of highly sought-after technical skills, we also offer professional development opportunities. We have a 92 percent graduate employment rate within a year, relevant to the graduate’s area of study.

There is a huge demand for people to fill ICT roles in Wellington, and IT roles dominated the list of highest paid positions in 2019. Business analysts, developer programmers, software testers, web developers, and ICT project managers are on the skill shortage list. These are some roles that our programmes target.

With the recently inaugurated campus located in the heart of Wellington, our purpose-built new space has the latest technology and a range of workspaces that encourage collaboration and innovation while providing flexibility. Our postgraduate programmes often collaborate, and students learn from each other on group projects. This is a meaningful opportunity to learn from different disciplines and experience what working in the industry feels like.

**PROGRAMMES OFFERED**

**Master of Software Development**
Learn how to program applications, including topics about Java, data structures, version control, networking, databases, security, web systems, Agile, and artificial intelligence.

**Master of Design Technology**
Learn how to create time-based media using 3D software to tell interesting stories that could include visual effects (VFX), gaming, animation, and extended reality (XR).

**Master of Professional Business Analysis**
Learn how to identify problems and improve processes for businesses with topics about systems analysis, databases, project management, and enterprise architecture.

**Master of User Experience Design**
Learn how to improve customer interactions with topics about persona development, case study analysis, user interface design, rapid visualisation, and prototyping.
The table below offers a comprehensive overview of postgraduate study options offered by the Wellington Faculty of Engineering.

### PROGRAMMES OF STUDY

<table>
<thead>
<tr>
<th>Qualification</th>
<th>Duration</th>
<th>Trimester start date</th>
<th>Type of programme</th>
<th>Entry requirements</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bachelor of Science with Honours (Artificial Intelligence, Computer Graphics, Computer Science, Electronic and Computer Systems)</td>
<td>1 year</td>
<td>1, 2</td>
<td>Coursework + research project</td>
<td>Satisfactory completion of Part 1 and at least a B+ average in subject area at 300 level</td>
</tr>
<tr>
<td>Master of Science (Artificial Intelligence, Computer Graphics, Computer Science, Electronic and Computer Systems)</td>
<td>2 years</td>
<td>1, 2</td>
<td>Coursework + thesis</td>
<td>Bachelor’s degree or equivalent in a relevant subject area with at least a B+ average</td>
</tr>
<tr>
<td>Master of Engineering by thesis</td>
<td>1 year</td>
<td>Anytime</td>
<td>Thesis + optional coursework</td>
<td>Honours degree or equivalent in a relevant subject area with at least a B+ average</td>
</tr>
<tr>
<td>Master of Artificial Intelligence</td>
<td>12–16 months</td>
<td>1</td>
<td>Coursework + research project</td>
<td>Bachelor’s degree or equivalent in computer science or relevant subject area with at least a B average</td>
</tr>
<tr>
<td>Master of Computer Science</td>
<td>12–16 months</td>
<td>1, 2</td>
<td>Coursework + project</td>
<td>Bachelor’s degree or equivalent in a relevant subject area with at least a B average</td>
</tr>
<tr>
<td>Master of Engineering Practice</td>
<td>12–16 months</td>
<td>1</td>
<td>Coursework + project/internship</td>
<td>Bachelor’s degree or equivalent in a relevant subject area with at least a B average</td>
</tr>
<tr>
<td>Postgraduate Diploma in Science (Artificial Intelligence, Computer Graphics, Computer Science, Electronic and Computer Systems)</td>
<td>1 year</td>
<td>1, 2</td>
<td>Coursework</td>
<td>Bachelor’s degree or equivalent in a relevant subject area with at least a B average</td>
</tr>
<tr>
<td>Postgraduate Certificate in Science (Artificial Intelligence, Computer Graphics, Computer Science, Electronic and Computer Systems)</td>
<td>1 trimester</td>
<td>1, 2</td>
<td>Coursework</td>
<td>Bachelor’s degree or equivalent with at least a B average</td>
</tr>
<tr>
<td>Graduate Diploma in Science (Computer Graphics, Computer Science, Electronic and Computer Systems)</td>
<td>Up to 2 years or more if part-time (depends on background)</td>
<td>1, 2, 3</td>
<td>Coursework</td>
<td>Bachelor’s degree or equivalent</td>
</tr>
<tr>
<td>Master of Software Development</td>
<td>1 year (full-time only)</td>
<td>2</td>
<td>Coursework + internship</td>
<td>Bachelor’s degree not in computer science or related topic, with at least a B average. Basic level of competence in programming required. Includes industry placement or applied research project</td>
</tr>
<tr>
<td>Doctor of Philosophy (PhD)</td>
<td>3–4 years</td>
<td>Applications due 1 March, 1 July, 1 November</td>
<td>Thesis</td>
<td>Honours or Master’s degree with at least a B+ average or equivalent</td>
</tr>
</tbody>
</table>

### POSTGRADUATE PROGRAMME IN ARTIFICIAL INTELLIGENCE

**NEW FOR 2021**

The Wellington Faculty of Engineering offers New Zealand’s first postgraduate programme in Artificial Intelligence (AI) to equip graduates with advanced knowledge of concepts and techniques in AI.

At a time when AI techniques are being increasingly adopted to address various problems, you will gain advanced knowledge of the concepts and techniques that power AI. You will also acquire the skills to build AI tools for a wide range of applications that have the potential to solve real-world issues.

**ENTRY REQUIREMENTS**

To be accepted into this programme, you will need a Bachelor’s degree or equivalent in computer science or relevant subject, with at least a B average.

**Degree programme**

<table>
<thead>
<tr>
<th>Degree programme</th>
<th>Duration</th>
<th>Points for qualification</th>
<th>Programme structure</th>
<th>Suitability</th>
</tr>
</thead>
<tbody>
<tr>
<td>Master of Science in Artificial Intelligence</td>
<td>2 years</td>
<td>240</td>
<td>• Eight 400-level courses</td>
<td>For those keen on exploring the subject in depth; pathway to doctoral study</td>
</tr>
<tr>
<td>Master of Artificial Intelligence</td>
<td>12–16 months</td>
<td>180</td>
<td>• Eight 400-level courses</td>
<td>For those wanting to enhance career prospects by engaging intensely with the subject</td>
</tr>
<tr>
<td>Bachelor of Science with Honours in Artificial Intelligence</td>
<td>1 year</td>
<td>120</td>
<td>• Five 400-level courses</td>
<td>For those seeking a strong foundation in AI and a pathway to further study</td>
</tr>
<tr>
<td>Postgraduate Diploma in Science in Artificial Intelligence</td>
<td>1 year</td>
<td>120</td>
<td>• Eight 400-level courses OR • Five 400-level courses and a research project</td>
<td>For those seeking a strong foundation in AI and a pathway to further study</td>
</tr>
<tr>
<td>Postgraduate Certificate in Science in Artificial Intelligence</td>
<td>1 trimester or more if part-time</td>
<td>60</td>
<td>• Four 400-level courses</td>
<td>For those who are employed and seek skills and knowledge in this field. This could feed to an MA/MSc degree</td>
</tr>
</tbody>
</table>

**Note:** International students can’t enrol in postgraduate certificate programmes due to visa requirements.

“AI is currently considered as key to driving innovations in major economies around the world, in research as well as industry. To Herenga Waka—Victoria University of Wellington’s postgraduate programme in Artificial Intelligence is the first one of its kind that is being offered in New Zealand. It is aimed at individuals from diverse backgrounds with varying levels of experience, and graduates can pursue a range of options across public and private sectors. Studying AI at Wellington University will offer students the opportunity to learn from, and interact with, leading researchers and academics.”

Professor Mengjie Zhang
School of Engineering and Computer Science

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Professor Mengjie Zhang
School of Engineering and Computer Science
MASTER OF
COMPUTER SCIENCE

Study emerging technology, explore concepts that will form the foundations of future innovations, and enhance your career with a Master of Computer Science (MCompSc).

This flexible coursework- and project based programme will put you at the forefront of innovation in a rapidly developing industry.

You’ll gain specialist knowledge of computer science theories, methods, and strategy and build on your skills in computing architecture, construction, engineering, and design.

Examine networks, software, tools, and packages, and learn more about a range of programming languages and computer-based systems.

DEGREE STRUCTURE

The 180-point MCompSc is divided into two parts and can be completed in one year of full-time study (three trimesters), or in two years of part-time study.

In Part 1, you’ll take an approved combination of courses totaling 120 points. Choose courses from 400-level Computer Science*, Cybersecurity, Network Engineering, and Software Engineering.

Part 2 is the research project, which is composed of two courses: COMP 501, a 15-point research essay that demonstrates you have understood the background to the research problem you have chosen to tackle, and COMP 589, a 45-point course in which you design, implement, and evaluate a solution to the problem.

ENTRY REQUIREMENTS

To be accepted into this programme, you will need a Bachelor’s degree in computer science or equivalent, with at least a B average, or extensive professional experience, and approval from the head of school.

Having completed his Bachelor’s degree majoring in Computer Science and Psychology, Shaun Burnell chose to go further down the former track with the Master of Computer Science.

“I wanted to pursue courses related to artificial intelligence and machine learning, and this programme seemed like a good option as it offers a combination of coursework and research. I also felt it could offer me a good understanding of where the industry was going,” he says.

His current research focuses on classification of streaming data, with a particular focus on text classification. “I really enjoyed learning about text processing and classification in one of my earlier courses and was keen on doing a project focused around it. Text processing has many practical applications these days—you see it in play every time you do a Google search or have autocomplete recommend a word. More specifically, I’m looking at how genetic programming can be used for classifying text on streaming data. It’s a relatively new field, relevant in times like this when social media generates data at unprecedented rates.”

The connections he made during his programme gave Shaun the opportunity to work with a local technology-based start-up. “I was able to use some of the skills I picked up last year to implement machine learning systems into their production. Clearly, the skills that the programme helps you learn are what the industry is looking for.

“I’ve also been able to interact first-hand with cutting-edge research in this field, as the University has some of the top researchers in evolutionary computing. Being able to hear them speak and understand their perspectives has greatly added to my own learning.”

Shaun is looking to work with one of the many companies in Wellington, the tech capital of New Zealand. “I find it very exciting that some topics I’m studying have been studied only in the past few years. Not only am I getting to see the conversations about these topics develop, the work I’m doing contributes to research in these areas. And that’s a great feeling.”

*Courses labelled COMP will be renamed AML (Artificial Intelligence and Machine Learning).
Go deeper into the world of engineering and conduct research in an area that interests you with the Master of Engineering (ME).

The research experience, technological know-how, and creative problem-solving skills you will gain from the ME will open up new opportunities for you in your career. You might find work in electronics, robot design, or systems development. Other career options include hardware development, programming, software engineering, and systems management. Alternatively, you may also further your research career by subsequently entering a PhD programme.

DEGREE STRUCTURE
The ME is a one-year full-time programme, although you can choose to study it part time.
You can also choose to complete it by doing research leading to a 120-point thesis or by combining research for a 90-point thesis with 30 points of coursework.
Whichever pathway you choose, you’ll learn to carry out independent research and further develop your abilities to think critically and creatively and write effectively, graduating with a professional qualification that will be attractive to a range of employers both in New Zealand and overseas.

Your ME may be endorsed with one of three subjects:
- Electronic and Computer Systems
- Network Engineering
- Software Engineering.

You will be supervised by one of our expert researchers and will work on a research project agreed between you and your supervisor. Your final thesis will be examined by two experts, one of whom will be from outside the University.

ENTRY REQUIREMENTS
To be accepted into this programme, you will need a Bachelor’s degree in a relevant field, with First or Second Class Honours, or extensive professional experience, and approval from the head of school.

How does a Master of Innovation and Commercialisation degree lead to a Master of Engineering degree?
“My thesis topic under the earlier programme was on wireless networks, and I started my research with a lecturer in the Wellington Faculty of Engineering. I really enjoyed the experience, and with my supervisor’s encouragement, decided to enrol for the Master of Engineering, specialising in network engineering,” explains Duncan Cameron.

Duncan’s research focused on energy optimisation of wireless backhaul networks. He devised a lightweight traffic engineering tool called Segment Routing over MPLS, or SR-MPLS, for supporting those who operate wireless networks in areas with energy-harvesting constraints.

Duncan enjoyed the overall research process. “The Master of Engineering programme has been a fantastic opportunity to develop my passion for wireless networking. I’m interested in exploring how wireless optical networks and radio-over-fibre research can be used to improve energy efficiency on modern wireless networks. There may be an opportunity to enrol for a PhD.”

Besides the academic components, Duncan believes other aspects of the Faculty have enhanced his overall learning experience. “There are opportunities for postgraduate students to socialise. There is life outside the programme, where you can meet new and exciting people and make friends for life.

“I also believe that some of the skills I developed as part of my programme were important in a project that I worked on with another student for Wellington UniVentures (the University’s commercialisation arm) on automated network monitoring.”

“Most of all, I’ve really enjoyed living in Wellington. The cultural richness that this city has to offer is simply not shared by many other New Zealand cities. For those wanting the best that New Zealand has to offer, I have no doubt that it is here in Wellington.”
Employers need ICT professionals and engineers who have the skills to work effectively in the New Zealand workplace. These skills include good communication and teamwork and an understanding of the professional environment, alongside strong technical knowledge.

Gain skills in communication, problem solving, and enterprise to complement your technical knowledge, and fast-track your career in this fast-growing industry with the one-year Master of Engineering Practice (MEP).

**DEGREE STRUCTURE**

The 180 point Master of Engineering Practice combines taught courses with a 12-week (one trimester) research project or paid industry placement to give you practical knowledge and experience.

You’ll have the option to choose courses in your area of interest, including:

- **Electronics:** Electronics encompasses both the hardware and the embedded software that enable the multitude of smart devices and systems in our modern technology. Study this hardware–software interface to contribute to the next generation of sensor devices, communication systems, and signal-processing applications.

- **Mechatronics:** From mobile phones to autonomous robots, the modern world depends upon mechatronic systems. Some of the most exciting breakthroughs in technology are happening in the field of robotics and mechatronics, including automation and artificial intelligence.

- **Networked applications:** Our world is becoming increasingly digital. As more items become part of the internet of things, we need skilled engineers who can design, configure, test, and secure networks. Create distributed networks that connect the world through millions of everyday devices.

- **Renewable energy:** Alternative energy technologies are rapidly becoming affordable, and it is well accepted that these will be immensely disruptive to our traditional mode of centralised energy generation, transmission, and distribution. Be at the forefront of this emerging industry.

- **Software engineering:** Software is the technology driving innovation and change in the world’s biggest industries, including healthcare, transport, and financial services. Give yourself an edge in this fast-growing field.

**ENTRY REQUIREMENTS**

To be accepted into this programme, you will need a Bachelor’s degree or equivalent, with at least a B+ average, and approval from the head of school.

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**SHARAN PRASAD**

Student, Master of Engineering Practice

Sharan Prasad says the unique combination of academic learning and practical experience within the Master of Engineering Practice is what motivated him to enrol.

Originally from Bangalore, India, Sharan says Wellington is a great place to study and live. “I am really enjoying my stay here. I love how warm and welcoming the people of this city are.”

His focus is on graduating with good grades, and staying in Wellington for at least another year to work. “I feel that there are very good opportunities here that would be great learning experiences for me.”

“The University has provided me with some excellent opportunities to learn, like interacting with real-world clients as a part of our study, excellent technical courses, and solid infrastructure facilities. I also had the opportunity to tutor for an undergraduate course.”

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Contribute to knowledge in your field with a degree that is recognised globally.

Studying for a Master of Science (MSc) degree, you’ll gain valuable skills in technical and academic writing. You’ll have the opportunity to undertake in-depth research in an area of your interest, alongside researchers from across the world, and publish articles in leading journals.

As well as contributing to specialist knowledge in an area of your choice, the Master of Science degree also opens pathways to doctoral degrees and further research.

**DEGREE STRUCTURE**

The 240-point Master of Science can be completed in two years of full-time study (or four years of part-time study) and forms the foundation for advanced study in a specific area.

In the first year, you will take several courses related to your chosen area. In the second year, you’ll undertake in-depth supervised research, culminating in a written thesis.

The combination of eight taught courses and a thesis gives you an opportunity to understand how theories covered in the programme apply to real-life scenarios. You can choose one of four majors:

- Artificial Intelligence
- Computer Graphics
- Computer Science
- Electronic and Computer Systems.

**ENTRY REQUIREMENTS**

To be accepted into this programme, you will need a Bachelor’s degree in computer science or equivalent, with at least a B+ average, or extensive professional experience, and approval from the head of school.

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**MASTER OF SCIENCE**

It’s interesting how chance encounters can lead you along paths you would have not opted for otherwise. And it was one such chance encounter with an introductory course on artificial intelligence (AI) that led Benjamin Evans to pursue a doctoral degree in AI.

“I had every intention of leaving after I completed my Bachelor of Science degree. But that course sparked my interest so much that I stayed on to finish an additional Honours year, followed by a Master’s degree in computer science, focusing on AI,” says Ben.

The opportunity to interact with and learn from staff engaged in world-renowned research proved positive for Ben. “Everyone is passionate about the field, and there’s a large cohort of like-minded graduate students to support and encourage you. The content is mentally stimulating, and great help is always available at all levels throughout your studies. The skills you learn here put you highly in demand for employers domestically and globally.

“I’ve also picked up other skills that transfer to all areas of life, such as public speaking and teaching skills. And the connections I’ve made throughout my studies will be invaluable going forward.

“AI is one of the most interesting topics of our era, and in the grand scheme of things we are only at the very beginning stages of the field. I enjoy the constant progress of the field, and there are still so many open questions and problems that make the area fascinating to work in. That’s the reason I chose to continue pursuing my academic career, though I’ve had various employment offers from the industry.”

Living in Wellington played a huge role in Ben’s journey as a student at Te Herenga Waka—Victoria University of Wellington. “Wellington is fast becoming a tech hub, with tech giants and start-ups alike in the CBD. And the city has something to offer everyone while retaining a cool, laid-back feeling.”

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**BENJAMIN EVANS**

Graduate, Master of Science in Computer Science
Get the technical skills you need to work as a software developer.

The Master of Software Development (MSwDev) is designed to equip people from a range of technical and non-technical backgrounds with a strong, industry-focused qualification. Gain skills in programming and software development that will enable you to develop software-based solutions for a range of industries.

DEGREE STRUCTURE

The Master of Software Development is a full-time, 180-point programme. It is expected that you will complete the full MSwDev within 12 months, through three consecutive trimesters of study.

The programme is made up of four courses that are a combination of practical taught courses and a research and development project to give you practical knowledge and experience.

ENTRY REQUIREMENTS

Designed for people who don’t have much software development knowledge, this programme helps you explore opportunities in the thriving ICT industry.

If you have a Bachelor’s degree (with a B average) in any stream other than computer science and are keen on exploring a career in IT, this is the path to your new career. Recent graduates, as well as experienced candidates who want to broaden their career opportunities, are welcome.

It is preferable, though not compulsory, for students to have a basic level of experience with programming.

WELLINGTON ICT GRADUATE SCHOOL

The Master of Software Development is offered through the Wellington ICT Graduate School (see page 12), which is a joint initiative between Te Herenga Waka—Victoria University of Wellington, Whitireia New Zealand, and the Wellington Institute of Technology (WelTec) to help kick-start people into Wellington’s thriving tech industry. Its programmes were created with input from the industry and are designed to build upon people’s existing talents and skills, providing hands-on experience and real-world projects.

KAITLIN MADDEVER

Graduate, Master of Software Development

Kaitlin Maddever completed a degree in linguistics, but it was a career in building things that people used that she sought.

This led her to explore the Master of Software Development programme at the Wellington ICT Graduate School. “I’d enjoyed mathematics and science when I was at high school, and realised that I missed that sort of thinking. The Master of Software Development sounded like a great option because it is meant for people like me, with non-technical undergraduate degrees.”

The in-person nature of the programme and its one-year duration were key reasons for Kaitlin to opt for this degree. “The person-to-person connection was especially important since I was a beginner looking to make a career for myself in this field.”

The practical nature of the programme appealed to her. “I wasn’t looking to add formal degrees that offered no practical experience, which is why I found the industry experience component of the programme very useful. My internship at Avenir Technology included creating an interface for clients to use—and this was great because it helped me look at what the client needed and customise the solution for them.” She continued working on the project when she joined Avenir as a full-time developer after completing her internship.

“Software is an inherently collaborative field where you’re working on tools that other people have made, and it’s very likely that someone else, with their own skill sets, will work on it again at a later point. It’s this sort of collaboration that I really enjoy, because there are always new things to learn and new tools to make your life easier—or harder!”

“It’s been an incredible journey since I got here—pursuing what I cared most about at the time, learning from it, and using that to determine what direction to go next. But it’s really important to cultivate that sort of curiosity, to try out something that you find interesting and see where it takes you,” she says.
The Doctor of Philosophy (PhD) programme is a course of independent study, under the guidance of a research supervisor, in which you undertake a major piece of original research that makes a significant contribution to the knowledge or understanding of a field of study.

Coursework is not an integral part of the PhD degree, but some students may be required or encouraged to undertake a limited amount of coursework.

ENTRY REQUIREMENTS
A PhD normally follows a Master’s or Honours degree (with a grade average of at least a B+) or other relevant experience. The minimum time for completion of a PhD is three years of full-time study, and students are expected to complete within four years of full-time study. Most candidates are enrolled for full-time study, but part-time enrolment may be possible. In special circumstances, we allow distance enrolment with prior approval.

FINDING A SUPERVISOR
All PhD candidates work under the direct supervision of leading researchers, usually at the University but sometimes at external research institutes.

Research degrees require at least one academic supervisor. If you know someone you would like to work with, you should approach them directly to discuss possible research projects.

Please note that finding a supervisor before you apply is advisable but not always necessary, and the final allocation of supervisors is done by the admissions committee, according to research interests and available resourcing.

STUDY SUPPORT
The University runs a range of workshops on research skills, which all PhD students are encouraged to attend.

ASSESSMENT
The PhD is assessed on a substantial thesis, by a panel of three examiners, one of whom will be from an overseas university. The assessment includes each examiner writing a full report on the work, after which the candidate faces an oral examination.

RESEARCH STRENGTHS AND SUPERVISION AREAS
You can study towards your PhD in any subject area that the University offers—or you can forge your own links between subjects with original interdisciplinary research.

Research is a big focus of the Faculty’s work, and a diverse range of projects are underway at any time, including investigations into:

■ applied superconducting engineering
■ artificial intelligence, machine learning, and evolutionary computation
■ augmented reality
■ big data, data mining, and data analytics
■ cloud and grid computing
■ computer graphics
■ computer vision, image processing, and visualisation
■ cybersecurity, network security, and software security
■ electronic materials and high-temperature superconductivity
■ engineering and computer science education
■ human–computer interaction
■ magnetic resonance imaging (MRI) systems
■ mechatronics and robotics
■ programming languages
■ renewable energy and smart power systems
■ scheduling, combinational optimisation, and operations research
■ sensor and sensor networks, instrumentation, and electronics
■ signal and audio processing
■ software-defined networks
■ space technology
■ superconducting machines
■ virtual reality
■ wireless communications and networking.

On completing a Bachelor of Science with Honours in Physics and Economics, Ratu Mataira chose the “hardest thing” he could do—to embark on a PhD in physics. “I wanted something that would be challenging and would push me to develop new skills and analytical thinking. The PhD specifically was a chance to push that idea, and myself, to the limit,” he says.

Ratu’s work involves superconducting dynamos that can be used in hybrid electric aircraft. “Similar to spark plugs in cars, these dynamos don’t produce any energy but play a crucial role in getting things going in generators. If we can make these superconducting dynamos work, then there’s a possibility that we can make superconducting motors small, light, and powerful enough that they can be used for aircraft electrification.”

Ratu believes that his relationship with his supervisor, Dr Rod Badcock, deputy director of the Robinson Research Institute, is an important part of his journey. “I was lucky to get to know him from my Honours degree. A PhD student’s relationship with the supervisor is a crucial one for the three to four years that they work together. The more you get to know your supervisor before you start, the better.”

Ratu also values the other opportunities that pursuing a doctoral degree at the Robinson Research Institute has offered him. “During my Honours degree, I had the opportunity to work with a company in Austin, Texas, for six months, where I was involved in developing quality assurance tests and experiments for a commercial manufacturer of superconducting wire. And when I started my PhD, I spent two months at the University of Cambridge learning research techniques from an academic there. These experiences, and other conference travel experiences, have given me a head start on academic networking and collaboration.”

Originally from Wellington, Ratu believes the city has a lot to offer students. “You don’t have to go to the theatre or pay attention to politics—just being in the cultural, political, and start-up hub of New Zealand surrounds you with great and interesting people.”
DEFINING THE FUTURE OF AI RESEARCH

With more than 50 staff and research students in its artificial intelligence (AI) research group, the School of Engineering and Computer Science has been pioneering research in this ever-evolving field. This is evidenced by the two Marsden grants that staff from the school, Professor Mengjie Zhang, and Associate Professor Bing Xue, received in 2019. Professor Zhang’s project relates to enhancing genetic programming (GP) techniques with regard to symbolic regression (SR), while Dr Xue’s project relates to challenges around automated deep learning for image classification.

An internationally renowned researcher, Professor Zhang’s research interests include evolutionary computation and learning, feature selection and big dimensionality reduction, symbolic regression and mathematical modelling, and deep learning and transfer learning.

The recipient of five earlier Marsden grants, Dr Zhang’s current project focuses on addressing issues related to SR and modeling tasks. Symbolic regression is predominantly used to find the optimal way to describe the relationships between input and output/target variables within a given data set, without the need for assuming any statistical distribution. As SR involves inherent complexities due to its parallel search for best model structure and statistical distribution. As SR involves inherent complexities due to its parallel search for best model structure and statistical distribution. As SR involves inherent complexities due to its parallel search for best model structure and statistical distribution. As SR involves inherent complexities due to its parallel search for best model structure and statistical distribution.

A fellow of both the Royal Society Te Apārangi and the Institute of Electronic and Electrical Engineers, Dr Zhang, leads a $13 million project funded by the Ministry of Business, Innovation and Employment to help New Zealand transition to a zero-carbon society by applying data science and AI to the aquaculture industry.

Dr Xue, a former PhD student and postdoctoral fellow at the University, joined the staff of the School of Engineering and Computer Science in 2015. Globally well-known for her research in automatic feature selection and dimensionality reduction, and evolutionary learning for image and pattern recognition, Dr Xue’s research aims to develop approaches to addressing real-world problems in applications and impacts areas such as biology, biomedical sciences, and aquaculture.

The project, for which Dr Xue gained her second Marsden grant, focuses on new evolutionary computation-based approaches to automated design of deep convolutional neural networks (DCCNs). These are the most widely studied deep learning methods and are primarily used for solving challenging image and vision tasks. Dr Xue’s project aims to improve accuracy in image classification, which is challenging as the deep structures and search space involved in designing DCCNs often lead to slow, complex models. The proposed methods are expected to automatically design and learn DCCN architectures and other models that significantly improve classification accuracy through better interpretability and comprehensibility.

“After that, we ended up identifying innovation of the production pipeline using the cutting-edge graphics technology as an area of research focus. Avatariisation, in the scope of CMIC, is therefore a new stream of technology that can help create a variety of intelligent and reactive digital humans across any different media industries beyond films and games,” says Dr Anjyo.

The research of digital humans and avatariisation is driven by the interactive industry’s constant search for the next best tool to generate high-quality graphics. “My own involvement with the digital human goes back a long way,” says Dr Anjyo. “In my earlier avatar, I was involved in research around hair for animated characters, animation with emotion, and interactive experiences with computer-generated characters. I was also involved with addressing challenges like directable character animation and directable light and shade animation for the Japanese anime style.”

“Can the texture of his skin look more refined?” In other words, how can the challenge that is the digital human be tackled more effectively? This is one of the key research areas currently being led by Dr Ken Anjyo, co-director of the Computational Media Innovation Centre (CMIC).

“How can her expression change more realistically?” “Can the texture of his skin look more refined?” In other words, how can the challenge that is the digital human be tackled more effectively? This is one of the key research areas currently being led by Dr Ken Anjyo, co-director of the Computational Media Innovation Centre (CMIC).

“The journey began when we worked with Square Enix (SQEX, a research and game design outfit with significant technical knowledge) and OLM Digital for a proposal to the Tertiary Education Commission for the Entrepreneurial Universities Programme. That gave us the opportunity to talk about what areas were most likely to affect the media and entertainment industries over the next 10 years. As one of the initial trial cases, CMIC and SQEX demonstrated some of the latest facial animation techniques for a digital human at a large game developers conference in Japan last year.

“Receiving two Marsden grants that staff from the school, Professor Mengjie Zhang, and Associate Professor Bing Xue, received in 2019. Professor Zhang’s project relates to enhancing genetic programming (GP) techniques with regard to symbolic regression (SR), while Dr Xue’s project relates to challenges around automated deep learning for image classification. An internationally renowned researcher, Professor Zhang’s research interests include evolutionary computation and learning, feature selection and big dimensionality reduction, symbolic regression and mathematical modelling, and deep learning and transfer learning.”

“Artificial intelligence continues to evolve into an integral part of our daily routines, and I find the ability of technology to be a seamless part of our life very inspiring,” says Dr Xue.

The more real the experience, the better the quality and nature of the interaction—when the virtual world becomes more immersive and common, people will behave more naturally with avatars. For this, the avatar itself has to behave with individuality, express emotions, and be able to communicate with other avatars or humans. The team at CMIC is currently exploring a crossover of various fields, including real-time graphics, artificial intelligence, virtual reality/augmented reality, and interactive technologies. “Working with industry partners like SQEX and OLM Digital has a significant value for us. We can clarify the end-user needs, analyse gaps in the cutting-edge research, and optimise research to deliver solutions to meet industry needs,” says CMIC director Dr Taehyun Rhe.

RESEARCH SPOTLIGHT
BUILDING THE DIGITAL HUMAN

Isamu Hasegawa, SQEX senior manager and research and development technical producer, says, “We’re extremely happy to partner with CMIC for research collaborations. The CMIC has great affinity with the game industry, and this comes across very clearly in the nature of the research they engage in—we have already received valuable insights and technology from them in the areas of computer graphics and extended reality (XR). Working with CMIC has another great advantage in its prototyping team that introduces a strong development element to the research.”

Various virtual reality games are already being developed with strong digital human components, and CMIC believes that the game and media industry will continue to be closely involved with this technology. “In fact, we believe that avatariisation will be applicable far beyond the entertainment industry—it will be leveraged for emerging applications for XR, for example. And we at CMIC are very keen to work with our industry partners and be part of this story,” says Dr Anjyo.
RESEARCH SPOTLIGHT

DEVELOPING A PORTABLE MRI

Magnetic resonance imaging (MRI) is a non-invasive, non-harmful way of taking medical images. It is recognised as the gold-standard imaging method for many conditions. However, if you ask anyone about an MRI, what they will remember are the loud noises, the claustrophobia, and the feeling of having no control during the scan. Surely there could be a way to acquire the same quality images medical professionals demand, but improve the patient experience?

This is the motivation for senior engineer Ben Parkinson at the Robinson Research Institute, as part of a multi-institution grant to develop such a system underway in New Zealand, Brazil, and the United States.

Ben’s area of expertise is in the design and manufacture of the superconducting magnets that lie at the heart of all clinical-quality MRI systems. His team’s research focus over the past three years has been to tackle two major issues in MRI: “Working with our collaborators at the University of Minnesota, we have come up with a way of designing MRI magnets that are much more compact than regular scanners. For the head imaging scanner we’re working on, not only are the patient’s shoulders now completely outside the magnet, we’ve engineered a window into it, so they can see through the side of the scanner too.”

By reducing the size of the magnet, Ben hopes MRI will be able to break free of its traditional clinical setting. “For each of the components we’re using in this system, we’ve tried to minimise the infrastructure it requires, and the space it needs. We’ve also tried to ensure the whole system can be moved between sites to bring MRI to people, rather than having people come to the MRI scanner!” This has meant utilising Robinson Research Institute’s internationally renowned capabilities in high-temperature superconductors to develop a magnet that can be cooled quickly and efficiently upon arrival at a new site, and requires only a water and electricity connection to keep it operating—a big step away from traditional MRI systems that are heavily dependent on in-facility infrastructure.

A unique feature of working at the Robinson Research Institute is the strong connection with the School of Architecture and Design Innovation. To fully recognise the potential for the system, Ben worked closely with Dr Edgar Rodriguez-Ramírez and his team at the School to fully define and develop the patient experience in the scanner. “Using a human-centred, iterative design approach, Dr Rodriguez-Ramírez and his team were able to create a patient and technician interface to the MRI system that will make MRI a much less intimidating experience while still meeting clinical requirements.”

Despite the benefits of phasing out petrol and diesel generators and embracing renewable energy sources, there is still one big challenge facing off-grid power systems: they are often reliant on one power source—solar, wind, hydro, or biomass—which makes them susceptible to changes in weather and climate. To counter this, they use high-capacity energy storage devices that make them unaffordable to low-income households.

PHD student Soheil Mohseni and Professor Alan Brent from the School of Engineering and Computer Science are looking at better ways to make renewable energy systems accessible to the low-income and remote communities that use off-grid power systems. Soheil is looking at several different methods of improving renewable energy systems for remote areas, including using artificial intelligence to build systems more suited to those environments.

“Artificial intelligence (AI) can help develop computer programs that can analyse complex weather data and thus help predict when natural resources will be available to be turned into renewable energy,” Soheil says. “It can also help pick the best mix of equipment for a renewable energy system to suit the environment the system is in.”

Using AI in renewable energy is one way of creating successful micro-grids, which offer a lot of advantages for remote communities using off-grid power systems. Micro-grids are small-scale, localised power systems made up of renewable energy power generators, power storage resources, power users, electrical wires, and control systems for electrical supply and demand. They can integrate existing off-grid renewable energy systems as a whole, and they offer plenty of technical and economic benefits for off-grid electrical supply.

These benefits include everything from solving the big problem of fluctuating energy sources by using a mix of solar, wind, hydro, and bioenergy, and reducing wasted energy by storing extra power in energy storage devices that are maintained on the grid. They also allow social initiatives such as giving the owners of each grid the opportunity to donate power or sell it at a much lower price to low-income households on the grid, as well as setting the foundation for demand-side management initiatives that allow users to optimise their energy use, and providing a platform for planned maintenance outages that will ensure electricity supply to houses, shops, and schools is unaffected by repairs.

So far, Soheil and Professor Brent have demonstrated that it is technically and economically possible to roll out AI-optimised renewable energy systems in three semi-remote New Zealand communities: the 400 people living on Stewart Island, a 1,000-strong community in Ohakune that swells to 8,500 people during the ski season, and a rural community of about 350 people in Fieling.

“Our aspirational goal of a just transition to a net zero carbon economy by 2050 means a greater focus of the engineering profession on improving the resilience and independence of communities, which, in turn, requires smart, tailored technology interventions offered through AI innovation,” Professor Brent says.

Soheil plans to continue working in sustainable development after he finishes his PhD. “I’m passionate about bringing clean energy to people in remote communities around the world so they can power their schools, hospitals, and other public institutions without using fossil fuels,” he says. “My preference would be to stay in academia, but no matter what, my ultimate dream is to make a valuable contribution to climate change mitigation and social equity in energy transformation.”
Our strong research culture is reflected in our scholarships, which are available for PhD and Master’s by thesis candidates in all disciplines. Graduate awards are open to graduates of any university enrolling in Honours or coursework Master’s programmes. Scholarships are available for both domestic and international students. In addition to the Te Herenga Waka—Victoria University of Wellington scholarships outlined here, there may be specific project funding available through the Wellington Faculty of Engineering. Contact the Faculty office or talk to your prospective supervisor to find out about these.

PhD FUNDING
The University awards scholarships to applicants applying to the PhD programme on the basis of academic merit, research ability, and, if relevant, a publication record. Approximately 120 new PhD scholarships are offered each year, in three rounds. Wellington Doctoral Scholarships currently provide an annual stipend of $23,500 plus tuition fees for up to three years. Closing dates for PhD admission and scholarships are 1 March, 1 July, and 1 November each year.

Visit www.wgtn.ac.nz/phd-apply for more information.

OTHER POSTGRADUATE SCHOLARSHIPS
Wellington Master’s by Thesis Scholarships are awarded to candidates on the basis of academic merit and the suitability of the research topic. They provide a stipend of $15,000 and domestic tuition fees for one year. Applicants must be undertaking a thesis of at least 90 points. The closing date is 1 November each year. Wellington Graduate Awards are open to students who will be enrolled full time in an Honours or Master’s degree taken via coursework or a combination of coursework and a thesis or research project of fewer than 90 points. The closing date is 1 November each year.

Visit www.wgtn.ac.nz/international for more information.

SCHOLARSHIPS

INTERNATIONAL STUDENTS

Te Herenga Waka—Victoria University of Wellington is New Zealand’s most internationalised university, with students from 114 countries, more than 140 university partners worldwide, joint teaching in a number of countries, a campus in Vietnam, and about 50 percent of staff from overseas. Our international research and teaching are strengthened by our diversity.

The first point of contact for information and advice for international students is Wellington University International. Staff handle admissions and enrolment and provide award-winning student support so students get the very best out of their time here. We welcome all international students on arrival and organise an orientation programme to help students establish themselves at the University and in the city.

We understand that living and studying in a foreign country may have highs and lows, and Wellington University International’s student advisers are here to listen to and support you. Academic advisers are available in the faculties, but prospective PhD candidates should contact the Wellington Faculty of Graduate Research in the first instance.

Visit www.wgtn.ac.nz/international for more information.

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