

At UNSW Australia we develop leaders who shape the future.

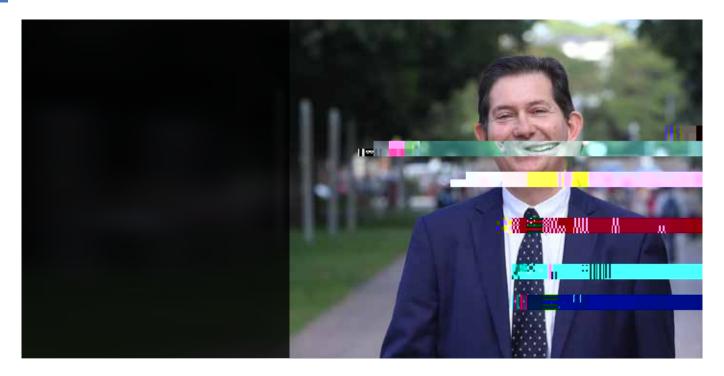
We're a powerhouse of cutting-edge research and teaching in the Asia–Pacific.

Innovation, technology and creativity are at the heart of what we do.

We are dedicated to tackling society's big issues.

We are trusted partners with industry, government and the community – a catalyst for change committed to making a difference.

UNSW. Never Stand Still.



It is a pleasure to present the 2014 Annual Report for UNSW Australia. I took up the post of President and Vice-Chancellor in February 2015 – this report details the achievements and challenges of the last 12 months of Professor Fred Hilmer's very successful term in that role.

2014 has been notable on a number of fronts. UNSW became the first university in Australia to apply a minimum Admission Rank of 80 across its undergraduate programs, with the aim of maintaining the high quality of its student intake. The University once again attracted the highest percentage of the top 500 students' first preferences and, very importantly, increased recruitment and retention rates for low-SES students. It's particularly gratifying to see that UNSW Medicine celebrated the graduation of six Indigenous doctors – the most ever in a single year – extending UNSW's leadership in Indigenous medical education.

Also notable was UNSW's outstanding achievement in winning the largest share of Australian Research Council funding of any university in the country, as well as our strong performance in international rankings.

Stellar achievements, such as that of our solar researchers, who in 2014 managed to convert over 40% of the sunlight hitting a solar system into electricity, the highest efficiency ever reported, helped to cement UNSW's growing international reputation, as did international recognition of some of our leading academics. In 2014, geneticist David Sinclair was named by *Time* magazine as one of the 100 most influential people in the world, Scientia Professor of Physics Michelle Simmons joined the likes of Stephen Hawking and Albert Einstein as an elected member of the American Academy of Arts and Sciences, and Scientia Professors Justin Gooding and Martin Green and Professors Andrew Grulich and Stephen Lord were highly cited in a list of the world's most influential scientists.

UNSW established its Scientia Professorships to recognise outstanding research performance, and it is pleasing to see Professors Katharina Gaus and Helen Christensen join fellow eminent academics Veena Sahajwalla, Michelle Simmons, Jane McAdam and Rose Amal in the ranks of the University's female Scientia Professors.

Our students also shone. Sunswift, a team of UNSW engineering students, was officially recognised as world-record holders for the fastest electric vehicle over 500 kilometres, while our robot football team rUNSWift became world champions, winning the 2014 RoboCup, which I understand is the robot version of the FIFA World Cup!

The University ended the year in a sound financial position, with a group operating result of \$11 million. It was a record year for fundraising, and we thank our donors, alumni and other friends of the University for their generous support.

These are only some of the highlights of a very successful year for UNSW. I commend this report to you and I congratulate Professor Hilmer, his leadership team and other staff on all that has been achieved, not only in 2014, but over the past eight years.

Staff and students at UNSW are currently involved in a consultation to plan our 2015–2025 strategy. As a result of the successes of recent years, we are able to develop ambitious plans from a strong foundation. I look forward to sharing the strategic plan that emerges and UNSW's continued progress in future annual reports.

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In 2014, Professor Fred Hilmer AO informed us that he would be stepping down from the position of Vice-Chancellor at the beginning of 2015. This meant 2014 was the final year under his leadership and in June we announced the appointment of Professor Ian Jacobs as his successor.

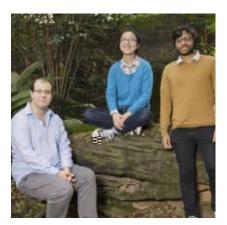
In Professor Hilmer's final year we can look at a campus transformed, with the rebuilding of our medical and engineering precincts close to completion and the opening of the redeveloped Art & Design campus in Paddington as well as the award-winning Kensington Colleges. But the ambitious building program has continued: as detailed in this report, 2014 was certainly not a year, in any area, for marking time or simply reflecting on achievements.

The University continues to be indebted to its generous benefactors. In 2014 two of Sydney's most respected names in art and design lent major philanthropic support: Judith Neilson and Penelope Seidler. The \$10 million Judith Neilson Chair in Architecture will taMe wou76 1(afir it r9(eArc)10(9(ear under))J0 -1 Insp 0u aJ0nefactor)-27(s)37(. IJJ.ro2um28(cal y)19(ear we can 0 -1king tim I



At a Glance







About UNSW Australia

Established in 1949 with a unique focus on the scientific, technological and professional disciplines, UNSW has a proud tradition of sustained innovation, focusing on areas critical to our future – from climate change and renewable energies to life-saving medical treatments and breakthrough technologies.

UNSW has eight faculties and one college, offering an extensive range of undergraduate, postgraduate and research programs.

We attract talented students from across Australia and around the world. Our 50,000-plus students come from 128 countries, making us one of Australia's most cosmopolitan universities. Our emphasis on quality continues to push up entry standards – in 2014 we saw record demand from the state's top school leavers.

The main UNSW campus is located on a 38 hectare site at Kensington, seven kilometres from the centre of Sydney. Other major campuses are Art & Design in Paddington and UNSW Canberra at the Australian Defence Force Academy.

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Our aspiration is to continually improve our position as a leading research-intensive university in the Asia–Pacific region, focusing on contemporary and social issues through defined strengths in professional, scientific and technological fields. We seek to make a significant contribution to the development of knowledge, to learning and teaching, to our students, and to society.

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- Continue to build on our position as a peer of the best universities globally in research performance, concentrating on defined strengths.
- Develop globally focused graduates who are rigorous scholars, capable of leadership and professional practices in an international community.
- Be a valued partner with key communities, making an impact on contemporary issues.
- Improve underlying leadership and operational capabilities.
- Maximise the availability of resources and the assignment of resources to priority areas.

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In pursuing our aspiration, and in the way in which UNSW is led and managed, we value and embed:

- Academic freedom
- Leadership
- Innovation, initiative and creativity
- Recognition of merit and excellence
- Integrity and high ethical standards
- Equity, opportunity and diversity
- Mutual respect, collegiality, teamwork and high service standards
- Professionalism, accountability and transparency
- Safety
- · Environmental sustainability.

2014 Snapshot



STUDENTS

39,848

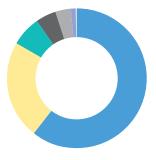
LOCAL STUDENTS

8 FACULTIES 1 COLLEGE 47 SCHOOLS 132 UNSW AND

EXTERNAL CENTRES AND INSTITUTES

18 ON-CAMPUS COLLEGES AND AFFILIATED STUDENT ACCOMMODATION

380 ACADEMIC VISITORS



Students by Level of Program

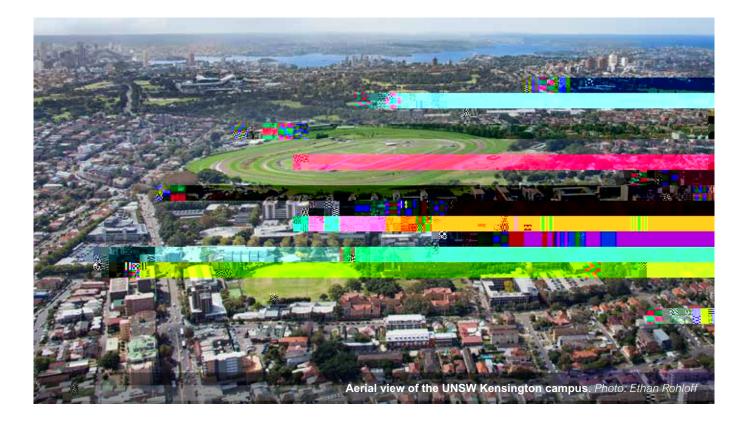
32 , 01 ¹	Bachelor and Diploma		
12,1 🎐	Masters Coursework		
3 , ¹	Doctorate		
2, 3	Grad Dip and Grad Certificate		
1,9 9	Non-Award		
0,9	Masters Research		
	Postgraduate Qualifying		

¹ Student data updated (01.06.2015)

Top 10 Countries of Origin for International Students[#]

¥,12	China (including Hong Kong)			
	United States of America			
y 1	Malaysia			
9	Indonesia			
10	Brazil			
9 7	Singapore			
3 11	India			
2 2	South Korea			
23	Vietnam			
2 1	United Kingdom			

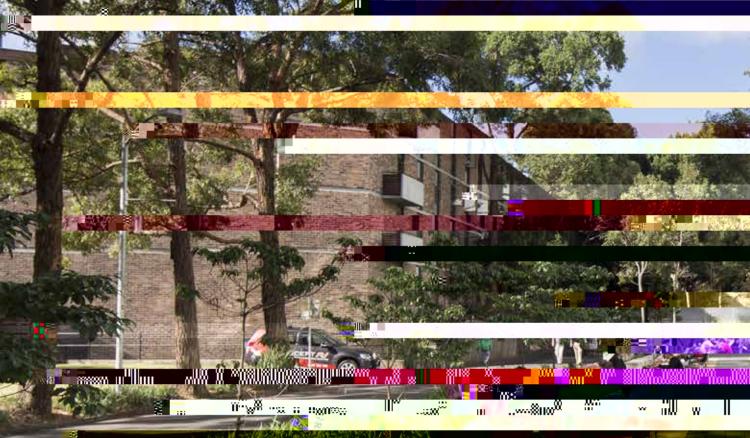
Full-Degree and Non-Award



The University is ranked

in the 2014 QS World University Rankings.





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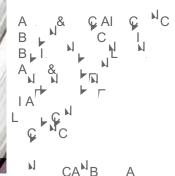
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FACULTIES



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Unique in Australia, UNSW Canberra at the Australian Defence Force Academy provides undergraduate education for officer cadets as well as postgraduate programs in arts, business, engineering, IT, management and science, which are open to all students.

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More of Australia's top CEOs who lead ASX 200 companies studied at UNSW than any other university.

(Leading Compan 2012)

UNSW boasts the largest number of millionaire alumni of any university in Australia.

(Spear's WealthInsight 2014)

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UNSW has produced more technology entrepreneurs in the past 15 years than any other Australian university.

(CrunchBase 2013)

UNSW was voted first in NSW in the 2014 QS Global Employability University Rankings.

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2014 in Review

January

A group of 10 academics, including three members of UNSW Built Environment, are recognised with Australia Day honours.

April

UNSW and Harvard geneticist David Sinclair is named by *Time* magazine as one of the 100 most influential people in the world.

More than 20,000 students enrol to take part in UNSW's first Massive Open Online Course, a nine-week program in systems engineering.

Quantum physicist Scientia Professor Michelle Simmons joins the likes of Stephen Hawking, Albert Einstein and Alexander Graham Bell as an elected member of the American Academy of Arts and Sciences.

Construction of the new School



Student innovation – taking the world by storm

UNSW students showed they were truly world beaters in 2014, highlighting why UNSW is renowned globally for its engineering program.

In July a solar car built by the student-led UNSW Sunswift team smashed a 26-year-old world record for the fastest electric car over 500km on a single charge. In the same month, UNSW Computer Science and Engineering students won RoboCup 2014 in Brazil, the robotics equivalent of the FIFA World Cup.

The Sunswift team is inspired by a vision of a world powered by renewable energy. It has competed in the biennial World Solar Challenge since 1996 and has broken numerous world records. The team is now using crowd-funding to help convert its fifth-generation vehicle eVe into Australia's first road-legal solar car.

The UNSW robot football team, rUNSWift, competed in the standard platform league of RoboCup, the world's largest robot competition. All teams compete with identical machines – only the software is different. The UNSW team wrote 125,000 lines of code to help their protégés to victory. The rUNSWift team last won in 2003, but have regularly placed in the top three teams. But it's not all about sport. The expertise they have developed will be used in robotic systems research in areas such as health, transport and industry.



Main photo of Sunswift: Daniel Chen | Photos of RoboCup: Grant Turner/Mediakoo

UNSW Council

The University is governed by a Council of 15 members led by the Chancellor under the *University of New South Wales Act 1989* ("The Act"). Members represent the interests of the University and the community, contributing expertise in a range of areas, including finance, commercial activities, law, governance and management, and planning and development.

The Council has Finance, Audit, Risk, Nominations and Remuneration, and Honorary Degrees committees.

The Council is able to draw on additional specialised expertise by appointing external members to its committees. Council and Council committee members serve the University on a voluntary basis. Further information on Council, its membership and committees is available on the UNSW website.

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ୁ ଅଧିରୁ ଅଧିକାର ଅଭିନ୍ୟରୁ ଅଭିନ୍ୟ Professor Frederick G. Hilmer AO LLB Syd, LLM Pennsylvania, MBA Wharton

ライラー、ショー Professor Prem Ramburuth BA DipEd South *Africa*, MEd Sydney, EdD *UNSW*, Licentiate RAM, *London*, GradDip TESOL South *Australia*, MAICD

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Mr Brian Long FCA

Ms Jillian S. Segal AM BA LLB *UNSW*, LLM *Harvard*, FAICD Deputy Chancellor

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Mr Billy Bruffey

Associate Professor Dorottya Fabian BMus (Hons) *Liszt Ferenc Academy of Music Budapest*, MMus PhD *UNSW*, FAHA

Ms Emma Lovell BE (Hons) Chemical Engineering UNSW

Mr Aaron Magner BEc *Macquarie*, MEM LLM *UNSW*

Scientia Professor John Piggott BA Sydney, MSc PhD London, FASSA 1. Ch. C.

Dr Jennifer Alexander MB BS MCom MHP *UNSW*, FRACMA FAFPHM FAICD FAIM FACHSM Pro-Chancellor

Ms Maxine Brenner BA LLB *UNSW*

Mr Nicholas Carney BCom LLB *UNSW*, MAICD

Mr Matthew Grounds BCom LLB UNSW

Mr Warwick Negus BBus UTS, MComm UNSW, SF Fin

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UNSW Foundation Limited Board of Directors

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Mr David Gonski AC (Chairman) Mr Richard Alcock Mr Robert Hugh Barry Dr Anthony Berg AM Mr Robert Cameron AO Mr Mark Dorney (from October 2014) Dr Robert Every AO Dr Holly Forsyth Dr Daniel Gauchat Dr Catherine Harris AO PSM Professor Frederick G. Hilmer AO Professor Mark Hoffman Mr Roderick Houng-Lee (from August 2014) Ms Cassandra Kelly Dr Wallace Kee Eur



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Executive Team (as at 31 December 2014)

Organisational Chart

(as at 31 December 2014

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Six women academics now hold the position of Scientia Professor, an honour that embodies UNSW's highest values, including leadership, innovation, creativity, integrity, teamwork and, above all, excellence. UNSW's female Scientia Professors are (pictured from left Helen Christensen, Katharina Gaus, Veena Sahajwalla, Michelle Simmons, Jane McAdam and Rose Amal. Sahajwalla and Amal were further honoured in 2014 winning Australian Laureate Fellowships. *Photo: Tamara Dean*

2014 highlights include:

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• We continued our strong performance in international league tables: 48th in the 2014 QS World University Rankings; 109th in the 2014-2015 Times Higher Education World University Rankings - described as "one of the biggest-rising universities in the rankings over recent years" and we rose three places in the prestigious Shanghai Jiao Tong Academic Ranking of World Universities (130).

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 We were ranked fifth in the Go8 in NHMRC funding announced in November 2014 and will receive \$65.8m (10%) in new funding across all schemes for projects starting in 2015. Excluding Program Grants, UNSW had

\$68m

ARC funding for 168 new projects, the highest in the Go8



2014 QS World University Ranking

Recognition

Researchers receive national and international awards

Global

Australian Technology Park Innovations co-founded by UNSW, voted world's leading technology incubator for 2014

Higher Degree Research candidates

Excellence

\$65.8m in NHMRC funding for projects to begin in 2015

Collaboration

Commonwvealth Bank commits \$5m to the quantum computing centre of excellence

Industry

\$10.5m in ARC Linkage Project grants, the highest level of funding nationally

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- UNSW was named the "rising star" in high-quality research publications for the Asia–Pacific region after it was ranked fourth in Australia in the Nature Publishing Index.
- Our research publications increased by 13% to 5,534 in 2013. There was an increase in book chapters and journal articles (8% and 20% respectively).

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 Formerly known as the Australian Advanced Treatment Centre, the Scientia Clinical Research (SCR) Facility is one-quarter of a larger project on the Prince of Wales Hospital Campus being managed by Health Infrastructure. Stage one, the underground radiation treatment bunkers,



2014 highlights include:

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- UNSW became the first university in Australia to apply a minimum Admission Rank of 80 across its undergraduate programs, with the aim of maintaining the high quality of its student intake.
- We exceeded all enrolment targets, attracting the highest percentage of the top 500 students' first preferences as well as increased recruitment and retention rates for low-SES students.
- The median ATAR of school leavers offered a place in the main round at UNSW was 92.15, the highest in NSW.
- 59 Indigenous students graduated from UNSW in 2014.
 We continued to have the highest number of Indigenous medical students in Australia.

- All five of our nominated students received prestigious New Colombo Plan Scholarships to study at leading universities in the region, valued at \$67,000 each. This was the best result in the Go8. Two UNSW arts/law students won prestigious Rhodes Scholarships to Oxford.
- We welcomed 5,495 commencing international students from 128 countries. Further expanding our global links, we signed 58 new agreements with a range of leading In gpicommencieading tterleading

TOP

Attracted the highest percentage of first preferences from the state's top school leavers

92.15

Highest median ATAR in NSW

Quality

First university in Australia to apply a minimum Admission Rank of 80

FIVE

Students awarded New Colombo Plan scholarships, valued at \$67,000 each

Demand

UNSW Foundation Studies' enrolments up 20%

Elite athletes

14 Ben Lexcen sports scholarships awarded along with 40 Elite Athlete scholarships

88.6%

Scored highly in the International Student Barometer survey, which measures satisfaction

Innovation

'Flipped classrooms' transform the ground level <u>of the Business School</u>

- Application processes were further streamlined and automated to ensure thousands of prospective students receive timely and informative responses.
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 - 2014 saw a 20% increase in scholarship applications from high school leavers, with a record number of almost 7,000 applications from 1,700 Year 12 students.
 - New Student Achievement Awards assisted 45 school leavers who were former U@UNSW program participants, as well as five Rural Student Achievement Awards for regional ASPIRE partner schools. More than 320 students received equity scholarships.

 - In October, NSW Family and Community Services Minister Gabrielle Upton officially opened the \$110m redevelopment of the Kensington Colleges, home to almost 1,000 students on campus.

 - Nura Gili, UNSW's Indigenous Program Unit, celebrated its 10th anniversary in October. The inaugural Scholarships Reception was also held to thank supporters and contributors to UNSW's Indigenous programs.
 - As a result of more intensive support for our UPP/UNSW Prep students, retention rates increased by 24% from 2013, while grades in core Maths and English courses improved by 54% and 63% respectively.

- There were continuing high levels of engagement in our AHEGS-accredited Leadership Program (1,500 students), while our Getting Started service helped thousands of new students transition into UNSW.
- The free app, Uni-Verse, which includes campus maps, news and event calendars, hit the milestone 1,000 unique visitors per day in 2014.
- A record number (878) of student mentors volunteered to support new students.
- -
 - UNSW continued working with Coursera to develop MOOCs, with three successfully delivered in 2014 – Learning to Teach Online; Mechanics: Motion, Forces, Energy and Gravity, from Particles to Planets; and Introduction to Systems Engineering. Nine MOOCs are planned for delivery in 2015.
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 - The ground level of the Business School was transformed into 'flipped classrooms' where students are encouraged to brainstorm using innovative technology and whiteboard walls. This new style of learning encourages group problem solving and collaboration.
 - The 'Beginning to Teach' program was piloted to develop the teaching capability of early career researchers and research students with little or no experience of teaching.
 - In 2014 we received four Office for Learning and Teaching Citations for Outstanding Contributions to Student Learning and three Australian Awards for University Teaching. For the list of winners see page 26.



\$35.3m

Secured record level of philanthropic revenue – up from 2013

\$10m

Donated by Judith Neilson to establish the Judith Neilson Chair in Architecture

Farewell

2014 Gala Town and Gown Dinner and Farewell to Professor Fred Hilmer

Partnerships

New media partnership with the ABC and new YouTube series launched

325,000

Likes on UNSW's Facebook page – most popular of all Australian universities

International

The Global Circle of Friends of UNSW continues to grow, with the UK Foundation holding its first meeting

Alumni

Outstanding graduates recognised with Alumni Awards

Ideas

Hosted inaugural Sir William Tyree Energy Lecture

- The 2014 Gala Town and Gown Dinner and Farewell to Vice-Chancellor Professor Fred Hilmer was held in November with more than 600 guests attending. The University welcomed a wide range of alumni and friends including distinguished guests His Excellency the Governor of NSW, General David John Hurley AC, DSC and the Hon Adrian Piccoli MP, NSW Minister for Education who was representing the Premier of NSW, along with a significant overseas contingent.
- UNSW supported the making of 'Unindian', a new Australian film by alumnus Anupam Sharma, starring former cricketer Brett Lee in his first lead role. Filming took place on campus in November and 50 UNSW students were featured as extras.
- The former federal environment minister Professor Robert Hill discussed policy responses to climate change in the inaugural Sir William Tyree Energy Lecture.
- Australia's Chief Scientist Professor Ian Chubb presented the 2014 Jack Beale Lecture on the topic 'No free rides to the future: Shoring up the science to sustain us'.
- Mr Thomas Keneally AO delivered the Annual Gandhi Oration on the topic 'Gandhi – Lovers and Haters', to a crowd of more than 550 guests including the Consul General of India, Mr Arun Kumar Goel.
- The University entered into a media partnership with ABC Radio National to launch a new science and technology initiative, 'Top 5 under 40', designed to give early career researchers a voice.

- The UNSW Facebook page remains the most popular among Australian universities, with more than 325,000 followers at the end of 2014.
- Subscriptions to UNSW YouTube channels continued to grow. Our combined channels now have a weekly returning audience of 51,000 viewers.
- A new YouTube open learning series on quantum mechanics presented by UNSW electrical engineer Associate Professor Andrea Morello attracted almost 130,000 views in its first fortnight and is building a dedicated audience.
- UNSWTV produced two strategic online series aimed at profiling our researchers and building our global outreach. *Catastrophic Science* highlighted the research that has emerged from natural and man-made disasters. *How Did We Get Here: Life, Universe and the Lot* was hosted by Associate Professor Darren Curnoe with guest-star academics from most faculties across UNSW.
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 - We awarded honorary doctorates and degrees to outstanding (ubewm10 1dffilmI-4id 50 nd b)10(uils from mle)280 nd bi



Smokefree

UNSW Australia UNSW SYDNEY NSW 2052 Tel +61 2 9385 1000 www.unsw.edu.au

Hours of business

Switchboard: Monday – Friday, 9am – 5pm Many departments of the University operate beyond standard business hours.

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