INFORMATION FOR CANDIDATES PROFESSOR

ANU College of Engineering & Computer Science
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MESSAGE FROM THE VICE CHANCELLOR

“Contemporary ANU will sit among the great universities of the world...We will be renowned for the excellence of our research...Our research investment will be strategic, taking a long-term view and focus on high-quality activities, high-impact infrastructure and areas of high national importance. We will be renowned for the quality of our undergraduate and graduate education. We will be renowned for the quality of contribution that our research and education make to societal transformation. We will identify emerging areas of need for the nation and provide research and education that will equip Australia to cope with challenges not yet imagined. ANU ... will change Australia and change the world. It will have impact.”

ANU Strategic Plan 2018-2021

For more than 70 years, The Australian National University has worked to realise the ambitions of the visionary Australians who founded it. As our Strategic Plan reflects, our ambition for the future of ANU is as great as the ambition of our founders, and reflects the special national responsibilities we have as beneficiary of the National Institutes Grant.

Our journey so far has validated their courage and vision. Our distinctive research culture is renowned: of the seven Nobel Prizes awarded for work undertaken in Australia, ANU can claim four. We rank among the world’s very finest universities. While our focus is Australia, our horizons are global. The legacy of our long-standing international engagement and expertise has delivered us unrivalled impact beyond our borders, particularly throughout Asia and the Pacific.

Australia today is in an era of rapid transition, along with the rest of the world. We face economic and societal change, and international instability. Government, industry and social institutions all face challenges to their legitimacy and longevity. In response, ANU must innovate in research, teaching and learning, and elevate our understanding of contemporary Australia and our world.

To fulfil our mandate as Australia’s national university, we must invest in, and insist on, excellence everywhere at ANU. We must be ready to adapt what we do and how we do it wherever our performance is not the best it can be. We must dismantle all the barriers, real and perceived, between ANU and the society we serve. In other words, we must be a contemporary national university and a valuable global resource.

The Reimagine Project – one of the most significant strategic endeavours ANU has ever undertaken – exemplifies our ambitions. It has my full support and backing as Vice-Chancellor and will ensure this unique institution is able to deliver on its contemporary mission as Australia’s national university, and one of the world’s greatest. If this sounds like a place you can come and make a contribution, we would be delighted to hear from you.

Professor Brian P. Schmidt, AC FAA FRS
Vice Chancellor and President
MESSAGE FROM
THE COLLEGE
DEAN

The Reimagine Project: Reimagining the future of Engineering and Computing

ANU has embarked on a major initiative to reimagine the role of engineering and computing in the 21st Century. Our lived experience is increasingly one of large-scale systems of people, whose actions and interactions are influenced by our digital, physical and biological environment. We and our technology are highly interconnected and yet highly diverse. Somebody, somewhere designed, built, and operates almost everything.

Our world needs people who are experts at designing, and safely operating, the engine that is composed of all of us – our society. They will need to be expert thinkers about how to safely design and operate highly heterogeneous and interconnected systems of natural and made things, IT and people – at scale.

We will reimagine the traditional engineering and computing disciplines. We believe the role of engineers and computing experts in the 21st Century is to bring together expertise on people, technological systems and science. We will not step away from the need to master a coherent foundational body of knowledge, and we will not be confined by old disciplinary boundaries as we give shape to new bodies of knowledge. At its core, we will equip our people to ask the right kind of questions from a people-centric, technological and scientific perspective.

‘We will inspire a new generation of high-potential, creative people to come to engineering and computing with a diverse range of interests, motivations, perspectives and career aspirations.’

We will nurture those people to go out into the 21st century world to find the right kinds of problems, the solving of which are truly transformational.

We are looking for people who believe in the same things we do and who want to create something exceptional. Unlock your imagination and reach out.

Professor Elanor Huntington
Dean
ANU College of Engineering and Computer Science
THE SCALE OF THE OPPORTUNITY AND WHERE TO BEGIN

The ANU College of Engineering and Computer Science has a strong international research reputation, a vibrant research led education program and has impact in the world.

The College is leading the Reimagine Project, a major strategic priority for ANU over the next decade. It is a unique opportunity to reimagine the future of Engineering and Computing in the context of our current and future society.

We will build on our proud tradition of excellence in research, and creativity in quality education to frame new thinking about, and solutions to, some of the world’s most complex human and technological challenges. Through the Reimagine Project, the College of Engineering and Computer Science will grow nearly 3-fold, inspiring a new generation of creative thinkers to these areas, challenging historic biases through the inclusive environment we create together.

Not only are we investing in our people and students, but also in a world-class infrastructure, and ethos.

Reimagine will markedly transform the physical and digital environment, research, learning and collaboration spaces on campus.

We do not underestimate the scale or complexity of our ambition. We are fully aware that tripling the size of Engineering and Computing in a world-leading university – in order to completely reorientate and Reimagine the future of these disciplines – is a unique undertaking. Our hope is that you will share our passion, drive and commitment and join us to realise this incredible undertaking.

One of the most exciting elements of this opportunity for the right candidate will be joining at the very early stages of this endeavour with the chance to shape every aspect of the environment from the physical infrastructure right through to our culture and ethos. Nothing is ever a blank sheet of paper but this is a unique opportunity to get very close to just that – and with the support and backing of a fully committed, world-leading research university around you. We have the strategic and financial backing of this great university and we are ready to launch.

cecs.anu.edu.au/reimagine
OUR GLOBAL REACH

You’ll join an esteemed group of partners with connections across the globe including partner universities, research collaborations and industry leaders.

Collaborative industry connections across the globe
- Boeing - Seattle, USA
- Intel - Santa Clara California, USA
- Ford Motor Company - Melbourne
- Google - Menlo Park California, USA
- GHD - Canberra Office
- Commonwealth Bank - Sydney
- Airbus - Toulouse, France
- Mitre Corporation - Massachusetts, USA
- Sony - Tokyo, Japan
- Facebook - USA
- Australian Signals Directorate - Canberra
- Australian Taxation Office (ATO) - Canberra
- Austrac - Canberra
- Australian Securities and Investments Commission (ASIC) - Canberra
- Australian Institute of Health and Welfare - Canberra
- ACT Government - Canberra

Engineers Without Borders (EWB) projects
- Nepal
- India
- Cambodia
- Malaysia

Example collaborator universities
- Harvard - Cambridge, Massachusetts, USA
- Caltech - Pasadena, California, USA
- University College London - London, UK
- University of Waterloo - Canada
- Technical University of Munich (TUM) - Germany
- City University - Hong Kong
- Peking University - China
- Nanyang Technological University - Singapore
The College structure has expanded to include three research schools, two established and the new Research School of Aerospace, Mechanical and Environmental Engineering, as well as two innovation institutes.
3A INSTITUTE IN FOCUS

3AI

Artificial Intelligence technologies are rapidly converging into cyber-physical systems, bringing profound, global economic, social and cultural shifts.

The Autonomy, Agency and Assurance Innovation Institute (3A Institute) is the first of the Innovation Institutes, established to tackle challenges like these head on as we seek solutions to the world’s most complex challenges through the Reimagine Project. Its mission is to create a new applied science to critically examine and manage cyber-physical systems through the life-cycle from design to deployment to de-commissioning.

> The 3A Institute was established by ANU Professor Genevieve Bell, one of the world’s leading technologists and Senior Fellow at Intel Corporation. Professor Bell pioneered futurist research at Intel and as Director is leading the innovation, research and policy agenda of the Institute.

> By 2020, the 3A Institute aims to have created a new intellectual framework combining both theory and praxis and to have built a curriculum to start training the first generation of certified practitioners of this new applied science

> The 3A Institute highlights the direction our College is taking with the bold, leading and innovative Reimagine project.

The 3A Institute team, led by Distinguished Professor Genevieve Bell (centre)
OUR VALUES AND SUPPORT FOR YOU

Our commitment is to help create an environment and culture that is supportive of the most creative and imaginative ways of reframing, thinking, being and doing in order to address those highly complex human, system, digital and physical problems our society faces, including those we have not yet anticipated.

Our role is to help orchestrate new thinking and new opportunities through bringing together a wide range of expert thinkers in related areas in such a way that old boundaries fall away and new discovery happens.

We will support you in collaborative endeavour. We will support you when this gets difficult and even when it fails. We will support you when you identify gaps that we can help to fill. We will support you when you are supporting others and building capacity and teams around you. We will support you in building an inclusive, positive and supportive environment that rewards brave new ideas that break new ground.

We will define, resource and reward success for individuals and teams in creative and different ways and we will recruit to compose teams.
YOUR AREA OF EXPERTISE

You will have the depth of expertise and breadth of vision needed to redefine the frontiers of disciplinary knowledge as well as frame and solve important, complex, problems of the age.

To that end, and in collaboration with our colleagues from across and beyond the university, you will bring expertise from relevant areas across the breadth of engineering or computing disciplines as well as from the social sciences, humanities, natural and life sciences.

We are looking for candidates with an area of expertise that makes sense in the College’s new structure (see page 7) and the broad direction of the Reimagine Project. We are also interested in the possibility of joint appointments or candidates that have the kind of profile that would support a cross-disciplinary appointment.

The ideal candidate will be at the cutting edge of expertise within the broad disciplines of engineering or computing.

They will have experience working in a high performing research environment - this could be in industry, government or academia. They will need to have the depth and breadth technical expertise to build research capacity at ANU.
YOUR UNIQUE CONTRIBUTION

> You will be an expert thinker with deep expertise in a relevant discipline;

> You will have the breadth of vision to bring together expertise on people, technological systems and science;

> You will set new expectations of excellence, inspiring existing and future faculty, students and partners;

> You will bring additional networks that can enhance and complement the development and delivery of the Reimagine project;

> You will deliver and connect well across domains of expertise and support others in doing so;

> You will bring a passion and expertise for new models learning and will know how to equip the next generation of engineers and computer scientists to think differently;

> You will bring a passion and expertise for new modes of engagement beyond the academy;

> You will be a proven collaborator and team builder, supporting the success of others;

> You will bring expertise in creating and sustaining a positive, inclusive, supportive and creative culture where failure is part of the learning experience and success is celebrated collectively;

> You will bring leadership to the role, modelling behaviours and inspiring others.
YOUR APPROACH

➤ You will be motivated by a desire to reimagine the future for Engineering and Computing; solving complex problems and making a positive difference to the world we live in;

➤ You will be a divergent thinker with deep domain expertise;

➤ You will be purpose-driven, want to keep learning and will bring your whole self to achieving team success;

➤ You will do things differently as much as you will do different things and you will understand why this is as much about outlook and behavioural attributes as it is about domains of expertise;

➤ You will understand why diversity is essential to creativity and will model a truly inclusive approach to others;

➤ You will model high levels of integrity in all your interactions;

➤ You will be brave, resilient, and accepting of failure in yourself and others;

➤ You will be an outstanding and inspiring communicator, including embracing new forms of communication and social media.
THE FORMAL BIT
PROFESSIONAL AND PERSONAL ATTRIBUTES

You will have:

> Proven domain expertise in a relevant research area (a record of world-leading research would be an advantage but is not a necessity if your academic career and contributions taken a different route);
> Proven ability to set a positive, creative and inclusive culture along with both behavioural and performance expectations;
> Expertise in new models of learning and engagement that will support future engineers and computer scientists to think differently.

You will be:

> Purpose-driven with a desire to reimagine the future of engineering and computer science;
> A divergent thinker with proven impact on a complex problem;
> A natural collaborator, able to deliver and connect across domains of expertise with existing networks in place;
> A natural leader and outstanding communicator;
> Brave, resilient, creative, inspiring, inclusive, energising, positive, honest and generous.
HOW TO APPLY

We’re keen for you to have the chance to demonstrate both the impact of your research and your enthusiasm for joining us in Reimagining the future of Engineering and Computer Science.

Please prepare the following application material:

1. Your CV (non-academic and non-traditional CVs are welcome)

2. A short cover letter explaining how you want to contribute to the Reimagine Project with consideration to the Selection Criteria.

3. Evidence of the impact of your portfolio of work, which may include research, course facilitation and outreach (this can be in case-study form)

4. A written reference from an external party who can describe the impact of your research

More information

For further information please contact:

Abigail Agyei
Senior Recruitment Consultant
reimagine@anu.edu.au
or on +61 2 6125 7432

The Position Description contains detailed information about the role, including Key Accountability Areas, the role Statement and Selection Criteria.

ANU values diversity and inclusion and believes employment opportunities must not be limited by socio-economic background, race, religion or gender.

For more information about staff equity at ANU, visit: services.anu.edu.au/human-resources/respect-inclusion
WHAT LIFE WILL BE LIKE
THE CANBERRA ADVANTAGE

Canberra has the power to surprise, with its abundance of fine food, wine, art, culture, ideas and innovation. As an evolving city, this element of surprise continues even once you’ve made Canberra your home, with new developments, events and opportunities constantly emerging to keep life interesting.

Proximity to power and policy
Our unique location in Canberra creates an enriched teaching and research environment, giving our researchers and students access to the nation’s political and policy making community.

World leading quality of Life
Canberra is designed to maximise the quality of life, built on a blueprint that connects people with community and nature, Canberra provides you the opportunity to create a unique work/life balance, wherever you choose to live. Rated #3 in Lonely Planet’s ‘Best in Travel’ (2018), the best city in the world for well-being (OECD 2014) and top 25 in the world by QS Best Student Cities (2017), living in Canberra means you’ll enjoy a high quality of life in a city with one of the best educated workforces, highest average full-time income and lowest unemployment rate in Australia.

For more information about life in Canberra: visitcanberra.com.au

3 hours 2.5 hours 2 hours
to Sydney to the snow to NSW beaches

A unique environment with unrivalled access
Our healthy appetite for outdoor pursuits is enhanced by the natural resources available: from sailing on Lake Burley Griffin, mountain biking at the world class Mount Stromlo facility or heading up to the Snowy Mountains for a day on the slopes or down to the spectacular beaches of the NSW South Coast.

We are also home to most of Australia’s major national cultural institutions, with whom the University has a close relationship, and a cultural calendar overflowing with international exhibitions, arts festivals and entertainment.
Dr Elizabeth Williams  
Research Fellow  
Autonomy, Agency and Assurance Institute  

I was attracted to the 3A Institute because of the opportunity to help create a new applied science that might directly and positively impact humanity. I’ve been working in the Institute since April 2018, and I feel like my colleagues and I on the research team are already making steps towards achieving this goal. It’s been an incredible experience thus far. I love working in an interdisciplinary team – we all bring very different backgrounds and perspectives to each research question, which means we’re all learning, questioning every assumption, and coming up with interesting new ideas on a daily basis. More broadly, I really enjoy being part of the campus community – the students are diverse and highly motivated, campus is vibrant, and home is a short and lovely bike ride away.

Dr Lesley Seebeck  
CEO  
ANU Cyber Institute  

I was pleased and excited to be offered this opportunity—both to be at the Australian National University, Australia’s premier research university, and to help build national capability in such a key area of Australia’s future. Cyber security is a field that sits at the intersection of people, technology, organisation, society, economics and security. The Cyber Institute offers the opportunity to bring people and ideas together from across a wide range of disciplines, backgrounds and endeavours to drive innovation, meet immediate needs and shape how we, as a nation, position ourselves for the future.

Associate Professor Antonio Tricoli  
ARC DECRA, WESTPAC, FERL Fellow  
ANU College of Engineering and Computer Science  

Since I have been selected as a recipient for a FERL fellowship at the Research School of Engineering (ANU), I had the opportunity to experience a stimulating and rapidly growing research environment. The unique freedom, autonomy and mentoring offered with this position are a great asset that has greatly contributed with my personal and academic development. I have greatly appreciated the welcoming research culture and mindset that are a substantial support toward the achievement of any ambitious goals.

Associate Professor Stephen Gould  
Ongoing Position (OP) Program 2010  

When returning to Australia in 2010, I was looking for an academic research environment that encouraged research excellence, collaboration, and exposure to top quality students. I found that at the Research School of Computer Science at the ANU and it’s close ties with NICTA (now Data61). ANU has been a place where I can focus on building world-class research with my peers, engage with other academic and industry partners, and develop innovative teaching programs to motivate and excite some of the best students in the world. The informal mentoring that I have received from senior academics and support from the College leadership has been invaluable in allowing me to win numerous competitive grants and industry research contracts. And while Canberra may seem a long way from the rest of the world, the generous travel grants and reduced teaching load in my first few years allowed me to stay close to international colleagues. Looking back, I am confident that I have chosen the right place to build my research career at one of the world’s top universities.
EMPLOYEE BENEFITS

The Australian National University provides a number of employee benefits for eligible employees.

Below is a brief summary of the benefits the ANU provides for eligible employees, which begin from the commencement of their appointment.

Family Friendly Workplace
- Generous parental leave provisions – up to 26 weeks at full pay plus 6 weeks of career re-entry leave
- On-campus childcare with the option to deduct payment from pre-tax salary
- Flexible working arrangements
- Breast feeding facilities
- Dual career (spousal) hires

Career and Professional Development
- In-house and external staff development opportunities, including individual coaching programme
- Support for caring responsibility to attend conference/seminar
- Outside Studies Program
- Support for individual career planning/counselling services
- Staff undergraduate and postgraduate scholarships
- Career development leave program
- Informal and formal mentoring

Salary Packaging
- Novated (car) leases
- Airline Membership – Qantas and Virgin Australia
- Laptops, PDAs
- Parking – Eligible staff are able to apply for permits for on-campus parking
- Superannuation

Health and Wellbeing
- On-campus staff counselling service
- Independent and confidential Employee Assistance Program
- On-campus fully credited primary health care facility – free flu vaccination
- ANU Fitness Centre – gym and group fitness classes
- Wellbeing programs for staff e.g. Women and Men’s Health Checks
- Dedicated Work Environment Group to support staff with Work, Health and Safety matters

Campus Life and Facilities
- Cafes, banks, ATMs, chemist, newsagent, bookshop and a post office
- ANU is a Smoke-Free Campus
- Access to University Libraries – 5 in total
- ANU GreenShare Car service
- Campus Bicycle Fleet and a network of walking and bike paths around campus
- ANU Green Unit to help reduce our carbon footprint
- Corporate discount for rental cars
- Vehicle Servicing and Maintenance with Autoco Belconnen – free pick up and drop off from the ANU
- Well established and maintained precincts for acoustic and other events e.g. University House, Llewellyn Hall
- Well maintained gardens and sporting/recreation facilities

Salary and Rewards
- Contribution of up to 17% superannuation (in addition to base salary)
- On-campus Unisuper consultant available for general advice on superannuation
- ANU staff health insurance plan with HCF for Australian resident and non-resident staff
- Recognition of Prior Service with another Australian university or Commonwealth authority

Learning communities
- Student-led organisations inclusive and open to everyone. These communities encompasses areas such as:
  - Creative arts;
  - Cultures;
  - Global challenges
  - History; and
  - Sustainability

For additional information, please contact
The College of Engineering and Computer Science
Human Resources
E hr.cecs@anu.edu.au
A WORLD-LEADING UNIVERSITY

The Australian National University (ANU) is one of the world’s foremost research universities.

Distinguished by its relentless pursuit of excellence, the University attracts leading academics and outstanding students from Australia and around the world.

Further information about ANU can be found at: anu.edu.au/about

History
The University was established by the Commonwealth Parliament in 1946 specifically to lead the development of the intellectual capacity of the nation through research and research training in line with the best international standards. It is the only Australian university established by a Commonwealth Act of Parliament. In 1960, the University accepted responsibility for undergraduate education along with an expectation that the highest standards of education would be achieved.

Scale
The University has 4,300 staff, 10,286 undergraduates and 6,925 postgraduate students. Its annual revenue exceeds $1.0 billion and consolidated assets are worth $2.5 billion

Partnerships
The University has strong links with leading research institutions in Australia and overseas. It is a founding member of the International Alliance of Research Universities, a co-operative network of 10 eminent international research-intensive universities which includes:

- University of Cambridge
- University of Oxford
- University of California, Berkeley
- Yale University
- Peking University
- National University of Singapore
- University of Tokyo
- University of Copenhagen
- ETH Zurich

Research-intensive education
As the specially-chartered national university, the University conducts research at the highest levels in all of its colleges, and offers a unique research-led education to undergraduate and postgraduate students as well as postdoctoral fellows.

The University advances the national intellectual and creative capacity in three key ways:

1. Through broad-based research and research-intensive education in the disciplines fundamental to all knowledge: the humanities, the sciences and the social sciences,
2. By supporting research and research-intensive education in a spectrum of professional disciplines, and
3. By studying Australia in its various contexts.

It is the aim of the University to achieve its objectives by creating an inspirational working environment for all its staff, students and visitors.

In each of its endeavours, the University strives to achieve at the levels of the world’s great universities.

Location
The University campus has over 200 buildings and occupies 145 hectares adjacent to the city centre of Canberra. The University also has a number of smaller campuses:

- Mount Stromlo Observatory (west of Canberra)
- Siding Spring Observatory (near Coonabarabran, western New South Wales)
- North Australia Research Unit (Darwin, Northern Territory)
- Kioloa (coastal campus near Bawley Point, on the New South Wales South Coast)
- ANU Medical School – The Canberra Hospital campus
- ANU Medical School – Calvary Hospital
- Health Facilities in South East New South Wales