OF THE PRACTICE

INFORMATION FOR PROSPECTIVE CANDIDATES

Senior Fellow Level C/Associate Professor Level D

Australian National University
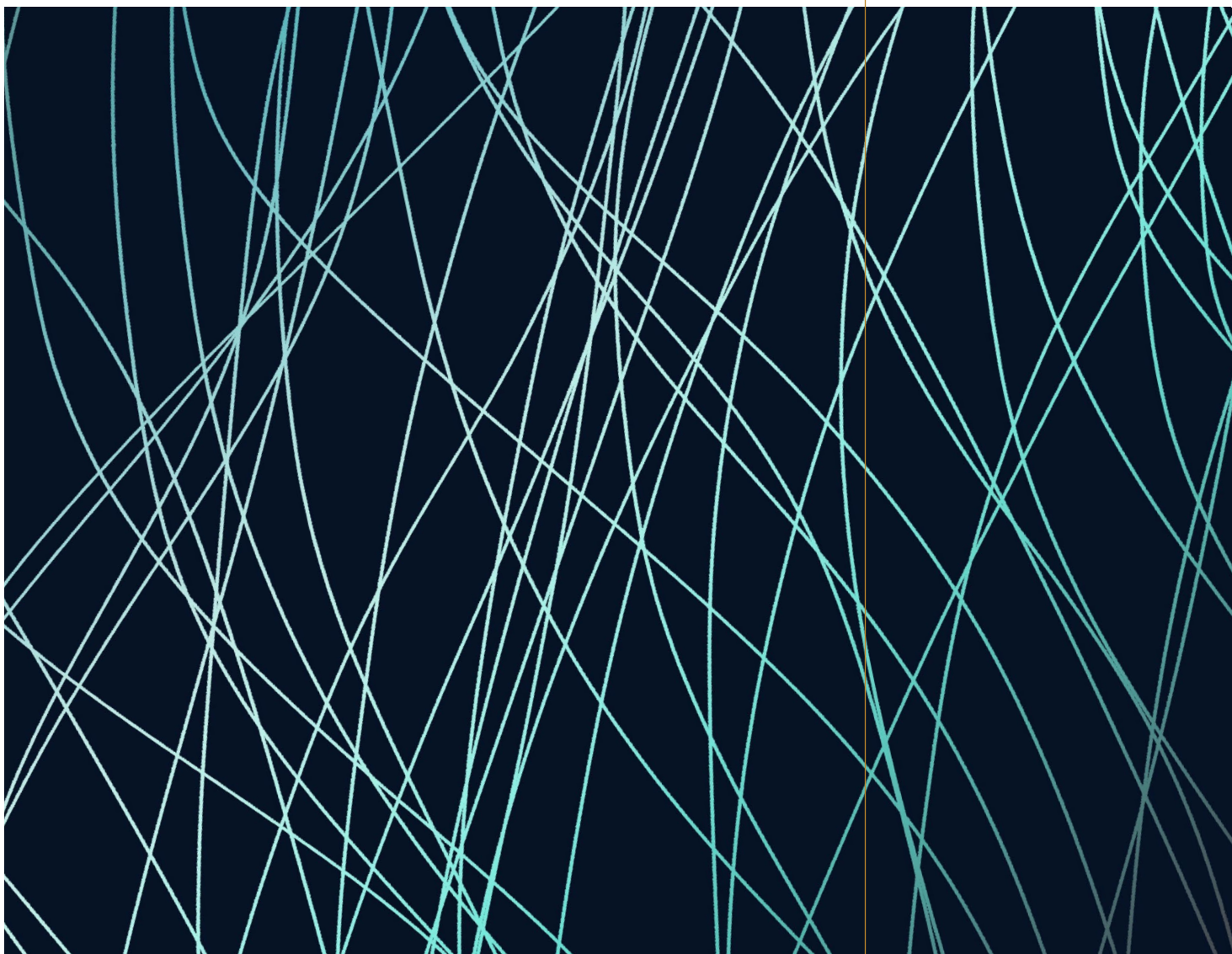
School of Computing

ANU College of
Engineering,
Computing and
Cybernetics

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Message from the School Director

Professor Tony Hosking

Director
ANU School of Computing

Built on the foundations of our expertise in information and computer science, the School of Computing is seeking transformational thinkers, who are motivated by our mission to provide high quality impact across research, education and engagement. We are committed to growing our research capability, whilst leveraging our strengths and connections to establish new collaborations, with a goal to inspire and deliver best practice in all we do.

Our people are passionate about our intellectual agenda that spans canonical and cutting-edge expertise in artificial intelligence and machine learning, computer systems and software, and theoretical foundations of computing. We are driven to improve student experience by folding real-world experiences into our academic programs and providing opportunities for work-integrated learning, industry projects and internships.

I invite you to see how your expertise can be applied in our community, and join us to inspire a new generation of computing professionals and thought-leaders.

About us

Join us in shaping a new intellectual agenda to reimagine engineering, computing, and the use of technology in the world.

ANU College of Engineering, Computing and Cybernetics

The Australian National University College of Engineering, Computing and Cybernetics (CECC) is a vibrant and diverse community of more than three thousand students, staff, and visitors. Our College comprises three schools: the School of Engineering, School of Computing and School of Cybernetics, supported by the Professional Services Group.

We aim to bring together expertise in social, technical, ecological and scientific systems to build a new approach. In the College, we draw on our disciplinary foundations to find and solve problems of global importance. Our people build on our traditional world-class expertise and take it in creative, unconventional directions. Through the Reimagine investment, we have the privilege and the responsibility to build a new legacy for the University, the country, and even the world.

School of Computing

The School of Computing has a strong foundation in computing and information sciences at ANU. We are a transformative centre for research in artificial intelligence and machine learning, computer systems and software, and theoretical foundations of computing.

We span canonical and leading edge computing, connecting decades of computer science methodologies with modern data and computational science. Our mission is motivated by the need to design, drive and sustain strategic activities via five broad focus areas: Computing Foundations, Computational Science, Intelligent Systems, Data Science and Analytics, and the Software Innovation Institute.

Be part of an innovative and forward-looking intellectual agenda, built on a diverse, inclusive culture.
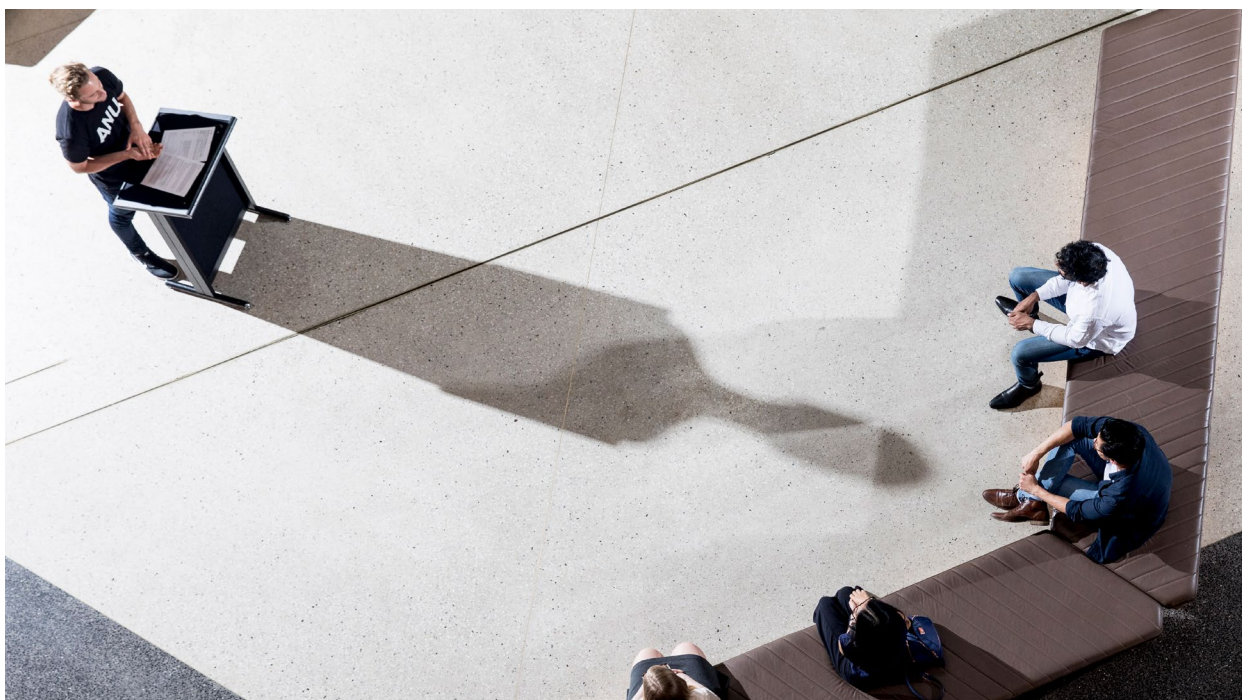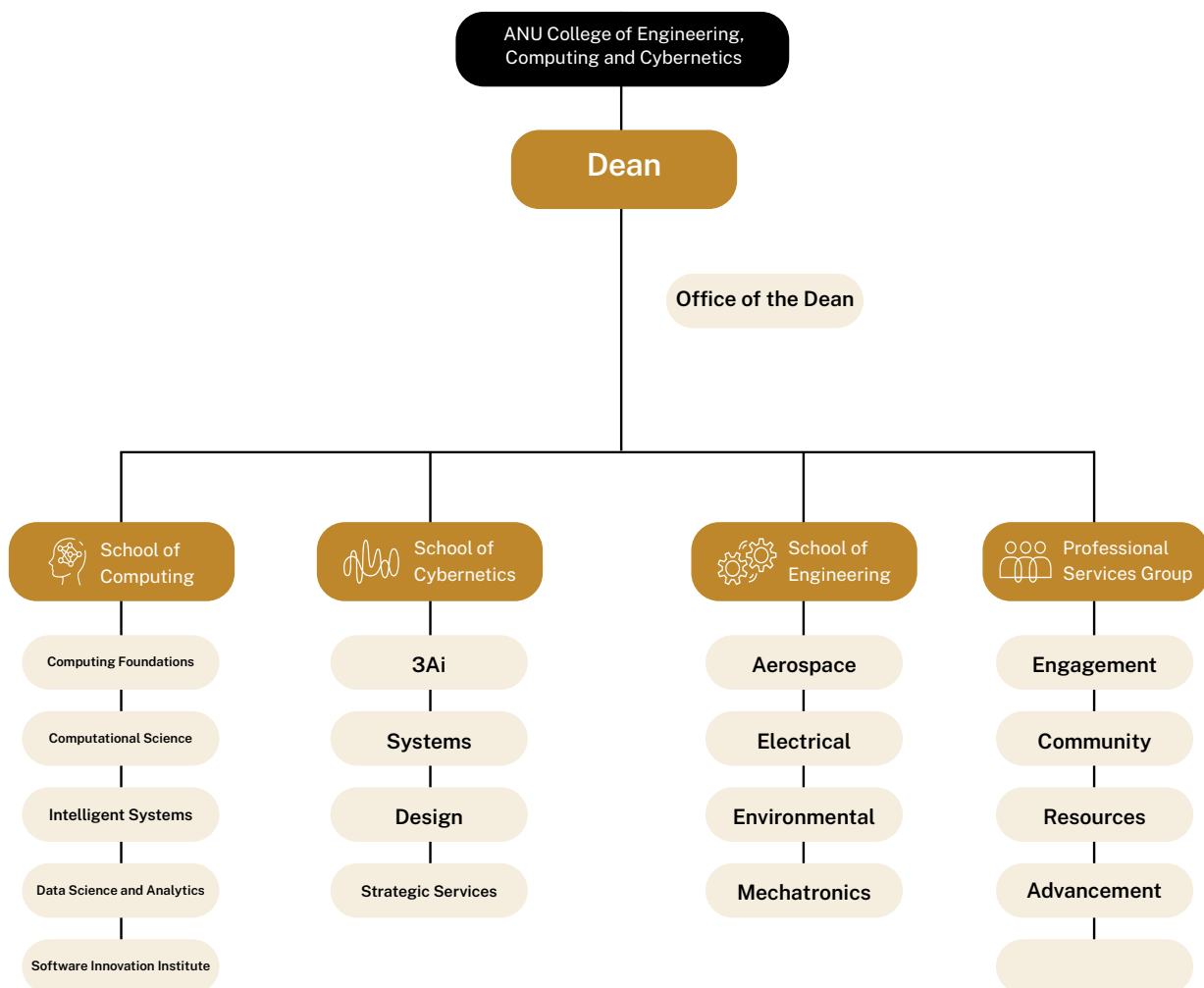
Our structure

Join us in shaping a new intellectual agenda to reimagine engineering, computing, and the use of technology in the world.

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. We believe the world needs new types of engineers, computer scientists and designers. We can't deploy methods and techniques of the past and expect new outcomes for the future. We need to reimagine problem framing and solving, incorporate diverse voices and approaches, and work together now to ensure our future leaders and communities are prepared for the work to come. We welcome and openly acknowledge differences in expertise, research / education / professional focus, experience and perspective.

Computing Foundations

Computing platforms underpin global commerce, governance, and social wellbeing as critical infrastructure. We focus on the software and hardware foundations of computing, and its theory, to improve the safety, reliability, and performance of software systems, and to make them scalable and secure. We combine teaching and research in the foundations of computing: logic and verification, theory of computation, computer organisation and architecture, operating systems, formal methods and methodologies for software development, and programming languages and tools. We work closely with industry partners on solutions to problems for real systems. Our education programs emphasise hands-on implementation and project-based learning.

Computational Science

Computation increasingly drives discovery in the sciences and engineering. We design, implement and use mathematical models to analyse and solve computationally demanding problems, using advanced computational infrastructure and algorithms to perform large-scale simulations of physical systems and processes, and visualise the outcomes to inform the science. Drawing on advances in machine learning (ML) and artificial intelligence (AI) we enable new approaches to virtual discovery and design, and the effective utilisation of computational assets at scale. Our education programs train computational scientists and provide them with skills in high performance computing relevant to science and engineering. We work with partners in target applications such as environmental science, computational biology, bioinformatics, quantum physical systems, and nanotechnology, to accelerate discovery in these domains.

Intelligent Systems

Machine Intelligence augments human intelligence in analysing and synthesising vast amounts of information. We focus on the computational modelling and design of intelligent agents in complex real-world contexts. Our research integrates areas of artificial intelligence (AI), machine learning (ML), and vision and natural language understanding, and robotics, to build autonomous systems that can perceive, plan, and respond to their environment in pursuit of high-level goals. Our teaching portfolio includes introductory and advanced courses in AI and ML from the foundational science to implementation of large-scale practical intelligent systems, with applications in computer vision, language understanding, and robotics, co-taught and co-developed across the College. We also work across the University to address questions on integrating human and social values in AI systems, touching on aspects of philosophy, cognition, ethics, and safety.

Data Science and Analytics

Data is central to all endeavours today, dealing with its acquisition, storage, curation, retrieval, and processing. By utilising Artificial Intelligence, Machine Learning, and Statistics data becomes the basis for our modelling of and reasoning about the world and society, to also gain understanding. We pursue a rigorous processing of data and its contexts and implications, engaging with domain experts in government, business, and the healthand social sciences to build models that turn data into information into knowledge to then support effective and confident economic and social decision making. Our research focus on the design and construction of robust processes and models leads to new algorithms, prototypes, and deployed systems across multiple domains to derive new meaningful insights whilst being sensitive to bias. Our broad teaching portfolio includes both micro and macro credentialing, balancing theoretical techniques with domain-relevant project-based learning, aimed at researchers, practitioners, and decision makers.

Software Innovation Institute

The Software Innovation Institute (SII) is developing new ways to train the next generation of Data Scientists and Software Engineers. We create, apply and teach state-of-the-art techniques in Data Science and Software Engineering to provide world-leading integrated learning for students, while addressing some of the complex challenges of today. We work with clients on actual projects, managed and supervised by industry experienced staff, to create systems that solve their data problems and drive business decisions, utilising world leading research outcomes. We bring together leading researchers, industry experts, and students to translate research, and social sciences to build models that turn data into information into knowledge to then support effective and confident economic and social decision making. Our research focus on the design and construction of robust processes and models leads to new algorithms, prototypes, and deployed systems across multiple domains to derive new meaningful insights whilst being sensitive to bias. Our broad teaching portfolio includes both micro and macro credentialing, balancing theoretical techniques with domain-relevant project-based learning, aimed at researchers, practitioners, and decision makers.

The opportunity
Of the practice

Bringing interdisciplinary, non-traditional academic perspectives.

This is an exciting opportunity for industry-grown practitioners to help nurture the computing professionals of the future and contribute to the School of Computing's innovative, interdisciplinary, and collaborative research program.

This is your chance to help guide the people who will engage with real-world projects that go beyond academic interests. You will use your experience to organise projects that engage with industry stakeholders to equip our graduates with the relevant skills to deliver solutions.

Your unique perspectives will help shape the future research directions of the discipline and help foster partnerships and collaborations across a range of sectors. You will have the opportunity to contribute to the design and delivery of research programs, courses and masterclasses; the publication of traditional and non-traditional research outputs; the supervision of students; and the development of creative and practice-orientated work programs and initiatives.

Scan for more information about Of the Practice

KEY ACCOUNTABILITY AREAS

Position dimension and relationships:

The Appointee will be a member of the School of Computing within one of the four activity clusters (Computational Science, Computing Foundation, Data Science & Analytics, or Intelligent Systems), accountable to the Activity Cluster Lead and to the School Director. The staff member will contribute cooperatively to the overall intellectual life of the School, College, and University. In this specific position, the appointee will also be a point of contact for external engagement and work in partnership with both professional and academic staff to achieve the strategic priorities of the School, College and University.

The Appointee will undertake work in all three areas of academic activity: innovation, education, and service (including outreach). The allocation of time to each area will be discussed with the position supervisor annually and be reflective of appointees independent research agenda and interdisciplinary teaching requirements and leadership opportunities within the School environment. The Academic may also be required to supervise or mentor less senior staff, and undertake leadership roles as applicable.

Senior Fellow Level C

In their role as Senior Fellow, the appointee will be expected to:

1. Proactively support the engagement and impact activities of the School, with the aim to identify, engage and activate a stakeholder community in academia / industry / start-ups / government / civil society.

2. Contribute to the educational activities of the School. This includes, but is not limited to, the preparation and delivery of lectures, tutorials, short courses and workshops; the preparation and delivery of professional and executive education courses; the preparation of online material; marking and assessment; and consultations with students.

3. Conduct high impact collaborative and cross-disciplinary research and creative works to contribute to the transformation of computer science at ANU, and body of unique intellectual knowledge.

4. Provide, in a collaborative manner, practice-led expertise into traditional and non-traditional academic outputs developed by the School.

5. Supervise at varying levels students working on individual or group projects.

6. Lead, supervise and develop less senior academic and research support staff in the School. Provide mentoring and career development advice in alignment with the performance development process at the ANU.research, impact, engagement and administration endeavours of the School, College, and University.

7. Proactively contribute to all aspects of the operation of the School, College and University more broadly. This may include taking broad supervisory roles.

8. Maintain practice and champion intellectual leadership and collegiality in all education, research and administration endeavors undertaken by the School, the College and the University

9. Take responsibility for their own workplace health and safety and not willfully place at risk the health and safety of another person in the workplace.

10. Other duties as required consistent with the classification level of the position.

Selection criteria

The School operates at the forefront of global discussions in a field of transformative significance. The Senior Fellow is expected to take a leading role within this non-traditional academic environment. The breadth and depth of this role are illustrated in the below selection criteria. While candidates should ideally meet all selection criteria, the School will consider all applications that demonstrate alignment with its mission.

1. A PhD that is relevant to the field of Computer Science OR an equivalent, demonstrated sustained intellectual leadership, in an area of relevance to Computer Science, in non-academic environments.

2. An outstanding track record of independent contribution, relative to opportunity, to their field of practice, as evidenced by high impact outputs in relevant and venues; a record of developing and maintaining collaborations with leading practitioners, researchers, institutes and non-academic partners; and by other measures such as awards (professional, research, teaching, etc.), invitations to give presentations at leading conferences, membership of leading professional institutes, patents, exhibits, broadcasts, entrepreneurship, major policy or community work, etc.

3. Potential and interest in effective teaching at all levels and in contributing significantly to the design and delivery the educational agenda of the School.

4. Potential and interest in fostering education at varying levels along with a demonstrated commitment to outreach activities involving the general community, schools, public sector, industry and the wider research community.

5. A demonstrated record of developing partnerships to support individual and collaborative research or practice-based activities, and the ability to identify similar opportunities for others to pursue.

6. A demonstrated alignment with the School culture and work environment, characterised by its strong orientation to collaborative research; team-based projects; interdisciplinary activities and interests; strategic decision making; and commitment to the success of peers and the team.

7. Demonstrated practice-based ability to mentor and develop colleagues to achieve goals in alignment with the strategic priorities of the School of Computing and the Co-Lab.

8. Excellent oral and written English language skills and a demonstrated ability to communicate and interact effectively with a variety of staff and stakeholders in a cross-disciplinary academic environment and to foster respectful and productive working relationships with staff, students and colleagues at all levels.

9. A demonstrated understanding of diversity and inclusion principles and a commitment to the application of these policies in a University context.

Consistent with their relative to opportunity to do so, a Level C Academic will have a relevant doctoral qualification or equivalent accreditation and standing together with subsequent research (or R&D) experience. This may not apply to candidates coming from different fields such as industry or government. Once in the role, there will be an expectation of academic excellence, making an outstanding contribution to research and, in this particular position, the ability to collaborate with internal and external stakeholders outside of your domain. A position at this level will require a demonstrated strong record of research output in academia, industry or government.

Associate Professor Level D

In their role as Associate Professor, with a particular focus on areas relevant to the Co-Lab partnership, the appointee will be expected to:

1. Proactively support the engagement and impact activities of the School, with the aim to identify, engage and activate a stakeholder community in academia / industry / start-ups / government / civil society.

2. Make a leading contribution to the educational activities of the School. This includes, but is not limited to the preparation and delivery of lectures, tutorials, short courses and workshops; the preparation and delivery of professional and executive education courses; the preparation of online material; marking assessment; and consultations with students.

3. Develop and lead high impact collaborative and cross-disciplinary research and creative works to contribute to the transformation of Computer Science at ANU, and body of unique intellectual knowledge.

4. Provide, in a collaborative manner, practice-driven leadership towards the creation of traditional and non-traditional academic outputs by the School.

5. Supervise students at varying levels working on individual or group projects.

6. Lead, supervise and develop less senior academic and research support staff in the School. Providing leadership, mentoring and career development advice in alignment with the performance development process at the ANU.

7. Proactively contribute to all aspects of the operation of the School, College and University more broadly. This may include taking on leadership and broad supervisory roles.

8. Maintain practice and champion intellectual leadership and collegiality in all education, research and administration endeavors undertaken by the School, the College and the University.

9. Take responsibility for their own workplace health and safety and not willfully place at risk the health and safety of another person in the workplace.

10. Other duties as required consistent with the classification level of the position.

Selection criteria

The School operates at the forefront of global discussions in a field of transformative significance. The Senior Fellow is expected to take a leading role within this non-traditional academic environment. The breadth and depth of this role are illustrated in the below selection criteria. While candidates should ideally meet all selection criteria, the School will consider all applications that demonstrate alignment with its mission.

1. A PhD that is relevant to the field of Computer Science OR an equivalent, demonstrated sustained intellectual leadership, in an area of relevance to Computer Science, in non-academic environments.

2. An outstanding track record of independent contribution, relative to opportunity, to their field of practice, as evidenced by high impact outputs in relevant and leading venues; a record of developing and maintaining collaborations with world-leading practitioners, researchers, institutes and non-academic partners; and by other measures such as prestigious awards (professional, research, teaching, etc.) , invitations to give keynote addresses at leading conferences, elite membership of professional institutes, patents, exhibits, broadcasts, entrepreneurship, major policy or community work, etc.

3. Potential and interest in effective teaching at all levels and in contributing significantly to setting and developing the educational agenda of the School.

4. Potential and interest in fostering education at varying levels, along with a commitment to outreach activities involving the general community, schools, public sector, industry and the wider research community.

5. A demonstrated record of developing partnerships to support individual and collaborative research or practice-based activities, and the ability to identify similar opportunities for others to pursue and to provide mentoring in the process.

6. A demonstrated alignment with the College culture and work environment, characterised by its strong orientation to collaborative research; team-based projects; interdisciplinary activities and interests; strategic decision making; and commitment to the success of peers and the team.

7. Demonstrated ability to provide practice-based leadership and to mentor and develop colleagues to achieve goals in alignment with the School of Computing and Co-Lab strategic priorities.

8. Excellent oral and written English language skills and a demonstrated ability to communicate and interact effectively with a variety of staff and stakeholders in a cross-disciplinary academic environment and to foster respectful and productive working relationships with staff, students and colleagues at all levels.

9. A demonstrated understanding of diversity and inclusion principles and a commitment to the application of these policies in a University context.

Consistent with their relative to opportunity to do so, a Level C Academic will have a relevant doctoral qualification or equivalent accreditation and standing together with subsequent research (or R&D) experience. This may not apply to candidates coming from different fields such as industry or government. Once in the role, there will be an expectation of academic excellence, making an outstanding contribution to research and, in this particular position, the ability to collaborate with internal and external stakeholders outside of your domain. A position at this level will require a demonstrated strong record of research output in academia, industry or government.

Applying for the role

Background Checking

The ANU conducts background checks on potential employees, and employment in this position is conditional on satisfactory results in accordance with the Background Checking Procedure which sets out the types of checks required by each type of position.

References

— ANU Minimum Standards for Academic Levels CECS Strategic Intent

— CECS Academic Performance Standards

— CECS Recovery Plan

Application process

All applicants are encouraged to apply for jobs online.

Manual applications should be forwarded to the Contact Officer on the advertisement, care of the School or Department where the position is located.

The closing date is specified in the advertisement. All job applications will be acknowledged upon receipt, by either email if electronic lodging or by mail if email is unsuitable.

Equity

The University is committed to providing equal opportunity of employment including the principle of selection and promotion of staff on merit, which precludes irrelevant personal attributes. Fair and transparent processes are applied in assessing the capacity of a person to perform the inherent requirements of a position, having regard to the person's knowledge, skills, qualifications and experience and their potential for future development.

Equal opportunity in employment also means enabling staff the opportunity to access the relevant conditions of employment, irrespective of personal attributes and to work in an environment free from discrimination, harassment and bullying.

Information for candidates

Employee benefits

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

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 vaccincation
- 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

Family friendly workplace

- 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
- 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

Campus life and facilities

- Cafes, banks, ATMs, chemist, newsagent, bookshop and a post office
- ANU is a smoke-free campus
- Access to University Libraries - five 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:

ANU College of Engineering, Computing and Cybernetics Human Resources

cecs.hradvisory@anu.eud.au

Our responsibility to Indigenous Australia

As Australia's national university one of our defining roles has been to contribute to the advancement of Australia's Indigenous peoples.

We contribute by graduating Indigenous students, as well as through game-changing research and direct engagement Delivering on our Unique National Responsibilities with Indigenous communities. We provide an environment for debating the big issues and partnering with Indigenous Australia to advance the status, recognition and lives of Aboriginal and Torres Strait Islander peoples.

Although the proportion of Indigenous students at ANU is high by the standards of some of our peer universities, we remain far from parity with the population at large for undergraduates. The proportion of postgraduate and higher degree students is lower again, as is the proportion of professional and academic staff. Through targeted activities we will work towards achieving parity with the proportion of Indigenous Australians in the overall population.

Research focused on Indigenous issues is broad in scope and has made a substantial contribution. ANU has strong Indigenous research leaders in a number of disciplines. However, our continued salience requires constant attention to impact, partnership with Indigenous communities and a commitment to novel and multidisciplinary approaches to our work.
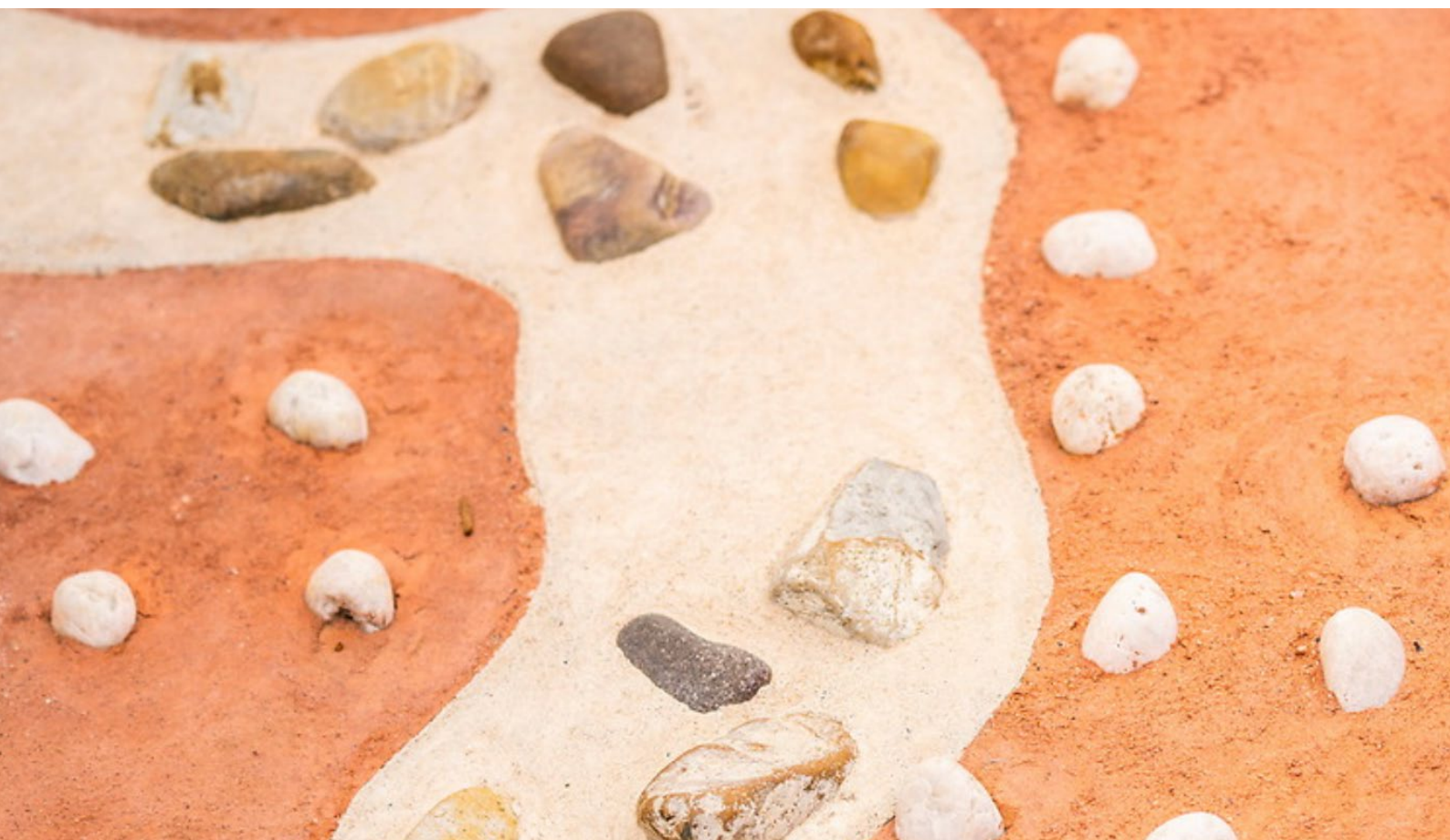
Achieving equity

ANU is committed to equity and diversity as fundamental values. Australia has a diverse population and we are committed to providing opportunities and an inclusive and welcoming environment, to those of all backgrounds and identities.

As Australia's National University, we have a responsibility and an obligation to educate students from across Australia who have the capacity to succeed, no matter their background. It is for this reason that we have launched a pioneering program to transform the way we do admissions. We are undertaking an international first to link our admission, scholarship, and accommodation processes so that when we make a student an offer to university, they will at the same time know where they will be living and whether they have a scholarship to support them. We are reserving a place for domestic students in the top 2% of every school in Australia who have the capacity to succeed, ensuring students have access to a world class education no matter the socio-economic status of their school.

Alongside this we are undertaking a major scholarship drive to remove the financial barrier for some of our most capable but most disadvantaged students, whether they be indigenous, suffering a long term disadvantage, low-SES, or from interstate regional and remote areas. We now have a single application form that allows both excelling and disadvantaged students to access more than 200 scholarship opportunities across campus by answering just four questions. And we are looking at the whole person, requiring all undergraduate applicants to have engaged beyond the classroom to support themselves, their family or their community, to clearly signal the importance of engagement beyond studies to both academic and employment success.

Athena Swan

ANU has committed to the SAGE Pilot of Athena SWAN in Australia. Athena SWAN is an accreditation program that recognises, promotes and rewards excellence in advancing gender equity and diversity. ANU became an inaugural member of the SAGE Pilot project in 2016.

While the focus of the SAGE pilot is on Science, Technology, Engineering, Mathematics, and Medicine (STEMM) disciplines, ANU is also committed to gender equity in the Humanities and Social Science disciplines, as well as in our professional staff.

About Canberra

One of the world's most liveable cities

Canberra has the power to surprise, with its abundance of 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.

About Canberra

Canberra is also a planned city – designed to maximise opportunities for work and play. As our Nation's Capital, big ideas emerge, circulate and grow here, thanks to unique links between leading thinkers in business, government, education and research. Our dynamic economy, highly educated workforce and an innovative business culture provide career and business opportunities unique to Canberra.

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. 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.

Where to live

The architects who designed Canberra, Walter and Marion Burley Griffin, had a master plan to create a series of 'satellite cities' separated by nature reserves and connected with major roads. Today their vision lives on, with Canberra divided into seven distinct regions of residential suburbs, each serviced by a central business district.

The resulting benefits are that commuting times are short. Employment hubs are virtually on your doorstep and recreational facilities are within walking distance, regardless of where you live.

Education and childcare

Canberra nurtures the pursuit of dreams from the ground up. Here families are provided with the supportive services, facilities and environments to raise happy, inspired and resilient children. Community is crucial for the support of families and Canberra has a number of ways to connect families with each other through playgroups, family events and activities.

For further information about Canberra visit canberra.com.au

Canberra has the lowest commuting times of all Australia's major cities

More than 25% of Canberra residents were born overseas

![Australian National University logo] Australian National University

Contact us

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