



Australian Academy of
Technological Sciences
& Engineering

Where ambitious solutions begin.

ATSE NEW FELLOWS SHOWCASE 2026

Wednesday 28 October
Allianz Stadium
Sydney

The Australian Academy of Technological Sciences and Engineering celebrates excellence in science, technology, engineering and mathematics by appointing prestigious Fellows, awarding upcoming innovators and equipping the next generation with skills to build a better Australia and world.

We are an authoritative and independent voice to decision-makers, and our world-class STEM career programs are shaping the knowledge-makers and innovators we need to tackle Australia and the world's most urgent challenges.

ATSE is Australia's foremost impact network for leading applied scientists, technologists and engineers.

Inaugurated in 1976, ATSE was formed as a Fellowship of Australia's leading applied scientists, technologists and engineers, and mobilised their expertise behind government and community priorities.

ATSE has since grown to more than 900 Fellows who are at the forefront of innovation in response to climate change and energy transitions, digital transformation, technologies to support national security, food and water security, personalised medicine, advanced manufacturing, resilient infrastructure, and many other areas of applied science, technology and engineering vital to Australia's and the world's economic, social and environmental sustainability. We independently advocate for decisions, policies and planning based on the best available evidence. We build the STEM skills and help catalyse national investment in research and development (R&D) urgently needed to solve these issues.



Australian Academy of
Technological Sciences
& Engineering



As an independent, non-government organisation and registered charity, we help grow a diverse and thriving STEM sector in Australia through:

Our hands-on, sustainability-focused science and engineering education program, STELR, is in more than 1,000 schools Australia-wide and internationally.



Elevate is our undergraduate and PhD scholarship program which is propelling women and diverse people into STEM studies, networks and careers.



IMNIS, our industry mentoring network in STEM, pairs hundreds of PhD students and early-career researchers with industry leaders every year.



Through Propel, ATSE is awarding thousands of undergraduate scholarships to STEM students, providing them with access to education and career opportunities associated with the AUKUS nuclear-powered submarine enterprise.

NEW FELLOWS SHOWCASE

Where ambitious solutions begin.

The tech that improves our world is within reach. All it needs is ambition that builds.
All it needs is a clear eye on real solutions. Be where ambitious solutions begin.

8:00am	REGISTRATION – Tea and coffee	
9:00am	WELCOME TO COUNTRY	
9:05am	WELCOME ADDRESS BY EMCEE – Dr Gunilla Burrowes FTSE	
9:15am	PANEL 1 Pushing forward on climate ambition Moderator: Priya Guha, Elevate Leadership Scholar studying a Masters Degree in Engineering Science (Energy Systems)	Professor Nathaniel Bindoff FTSE Kay Blades FTSE Dr Melita Keywood FTSE Professor Graciela Metternicht FTSE Grant King FTSE
10:00am	PANEL 2 AI solutions for today and tomorrow Moderator: Conrad Guimaraes, Founder of Coaxial AI, Startup creating robots for data centre buildouts	Mark Stickells AM FTSE FAICD Professor Kate Smith-Miles AO FTSE FAA Professor Flora Salim FTSE Professor Simon Lucey FTSE Distinguished Professor Fang Chen FTSE
10:50am	MORNING TEA	
11:15am	PANEL 3 Creating ambitious food systems Moderator: Dr Vivien Rolland, Group Leader, DSTG - IMNIS Mentor and past ATSE ICM Agrifood Award winner	Professor Rajeev Varshney FRS FTSE FAA Professor Benjamin Hayes FTSE Hon Dr Parwinder Kaur MLC FTSE Professor Fariba Dehghani FTSE
12:00pm	PANEL 4 Turning tech breakthroughs into better health Moderator: Dr Tejas Canchi, Senior Verification and Validation Engineer at ResMed - IMNIS Mentor	Dr Elisa Mokany FTSE Professor Nicholas Opie FTSE Michael Farrell FTSE Professor Chunxia Zhao FTSE
12:50pm	LUNCH	
1:50pm	PANEL 5 Materials and manufacturing to create better lives Moderator: Shehab Khan Noor, PhD student (Optical fabrication) and IMNIS mentee	Professor Rebecca Gravina FTSE Professor Amanda Ellis FTSE Professor Lan Fu FTSE Professor Jian-Feng Nie FTSE Professor Mahananda Dasgupta FTSE FAA
2:35pm	PANEL 6 Ambitious science and engineering leadership Moderator: Meghan Hennessy, Licensing Officer, Australian Nuclear Science and Technology Organisation and past Elevate Leadership Scholar	Katherine Richards AM CSC FTSE Professor Alec Cameron FTSE Tanya de Hoog FTSE Honorary Professor Xingjin Wang FTSE Professor Graham Wren OBE FREng FTSE
3:25pm	EMCEE – Dr Gunilla Burrowes FTSE	
3:40pm	AFTERNOON TEA	
4:00pm	CLOSE	



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Professor Nathaniel Bindoff FTSE

ARC Laureate Fellow, University of Tasmania
Ocean climate detective



Professor Nathan Bindoff, a world-leading ocean and climate scientist, has made significant contributions to the detection, attribution and impact of climate change. He has documented global ocean shifts - including marine heatwaves, a reduction of oxygen content and an acceleration of the global water cycle - alongside

transforming global oceanographic data management. Professor Bindoff was lead author on three chapters in successive Intergovernmental Panel on Climate Change Assessments and played a key role in writing the highly influential Summaries for Policymakers. He established and led the award-winning Climate Futures for Tasmania program, delivering high-resolution climate projections and adaptation information to the Tasmanian and Victorian governments, and a range of industries spanning wine, snowsports and energy. Professor Bindoff also led the Australian Antarctic Program Partnership, directing interdisciplinary science and translating the knowledge into policy advice.

Kay Blades FTSE

Committee on Aboriginal and Torres Strait Islander Water Interests

Water management knowledgeholder



Kay Blades is a Mandandanji woman whose life and leadership are deeply connected to the Balonne River in southern Queensland. Growing up on the riverbanks, her Water Country lies in the northern reaches of the Murray-Darling Basin. Her work in the water space is grounded in a profound cultural

responsibility to look after Country. As a leading voice for Aboriginal water rights and interests, she has advised the Australian Government on the new National Water Agreement, and the Murray-Darling Basin Authority on the Native Fish Recovery Strategy. She has also led a project to incorporate Traditional Knowledge, Indigenous leadership and Self-determination into water modelling and waterways assessment - an example of her ability to move confidently between Indigenous knowledge systems and Western science, engineering and technology. By bridging these worlds, Blades' impact is particularly powerful, reshaping conversations about water management to ensure they are culturally informed, environmentally sustainable and socially just.

Professor Alec Cameron FTSE

Vice-Chancellor, RMIT University
University transformation leader



Professor Alec Cameron is an engineer and educator who has demonstrated outstanding leadership at the intersection of advanced technology, complex organisations and public purpose. His career includes senior leadership roles in telecommunications and digital infrastructure, driving large-scale national technology deployments

and major capital investment. He has since led technology universities in Australia and the United Kingdom, shaping the complex systems of research, skills and collaboration that underpin national technological capability. As Vice-Chancellor and President of RMIT University, he has advanced applied research, innovation-led education and workforce development at scale. Through multiple executive, advisory and board director roles, Professor Cameron's governance and strategic expertise are actively shaping how science and engineering deliver economic and societal benefit.

Distinguished Professor Fang Chen FTSE

Executive Director, Data Science Institute, University of Technology Sydney

Intelligent infrastructure powerhouse



Distinguished Professor Fang Chen is a global authority on data science and AI, delivering transformative impact across critical infrastructure. Her predictive analytics platform for managing major assets has been adopted globally by more than 30 utilities, delivering billions in

estimated economic benefit and social impact. This includes predictive water infrastructure management, Sydney Harbour Bridge structural monitoring, multimodal transport resilience optimisation and intelligent congestion management. She also pioneered multimodal cognitive load measurement systems deployed in many emergency management centres, strengthening decision-making under pressure. She has contributed deep technical expertise to national innovation strategy and policy, and to Australia's first public sector AI Assurance Framework in NSW. Her translation of deep technology into measurable societal, environmental and economic outcomes has been recognised by the Eureka Prize for Excellence in Data Science, the NSW Premier's Prize for Science and Engineering and Transport Woman of the Year award.



ATSE
AWARDS

ATSE Awards 2027

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Gala dinner to be held in Canberra,
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atse.org.au/awards



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Image: Australian Centre for Robotics



THE UNIVERSITY OF
SYDNEY



Professor Mahananda Dasgupta

FTSE FAA

Director of the Heavy Ion Accelerator Facility,
Australian National University

Accelerating nuclear excellence



Professor Mahananda Dasgupta is a world-leading nuclear physicist known for pioneering contributions to nuclear reactions and advanced instrumentation. Her precision measurements revealing the effects of quantum processes in nuclear fusion redirected research worldwide.

Leading the Heavy Ion

Accelerators national infrastructure capability, she has championed applications across nuclear, quantum, environmental, defence and space research, developing this large-scale sovereign infrastructure to meet national needs. In partnership with industries and universities, she is leading a training centre to address the nuclear-science skills shortage. She also initiated programs to increase and sustain diversity in STEM. Professor Dasgupta has provided expertise and global insights to decision-makers as a member of the National Science and Technology Council. She is an elected Fellow of the Australian Academy of Science and the American Physical Society and has been recognised with prestigious awards including the Pawsey Medal.

Tanya de Hoog FTSE

Chief Engineering, Eminence and Innovation
Officer, Aurecon

Industry-shaping structural engineer



Tanya de Hoog has advanced structural engineering practice by integrating technical excellence with environmental performance and social value. With nearly 30 years of design experience across Australia, the UK and the US, she has led award-winning and landmark projects around the world. At Aurecon,

she leads enterprise-wide efforts to strengthen quality, technical excellence, capability and purposeful innovation across an Asia Pacific engineering consultancy. Her leadership support in embodied carbon integration allowed emerging research to be converted into practical tools now embedded in mainstream project delivery. In 2019, she founded and led Thornton Tomasetti's 'Doing Good Business' New York initiative, linking engineering delivery with measurable community outcomes. As 2024 President of the Institution of Structural Engineers, she used her international platform to raise the profession's visibility and its responsibilities to people and the planet.. She is a strong advocate for the vital role of engineers in driving climate action, upholding public safety and positively impacting communities.

Professor Fariba Dehghani FTSE

Professor, The University of Sydney

Bioengineering pathfinder



Professor Fariba Dehghani is a chemical engineer and entrepreneur globally recognised for engineering biomaterials with real-world health and sustainability applications. Her expertise spans material synthesis, processing and scale-up, enabling translation of laboratory discoveries into commercial products. She has led the development of

advanced materials and technologies adopted by major industry partners, including innovative medical implants, biosensors for monitoring food safety and sterilisation technologies. She is an award-winning mentor and an inclusive leader building research capacity, with almost 200 trainees (comprising more than 50% women) going on to secure leadership roles in academia and industry, including six successful companies founded in New South Wales. She has also contributed to establishing the University of Sydney's Women in STEM mentoring program. Through her longstanding service to the Australian Research Council, she has contributed in shaping national research priorities and provided expert funding guidance.

Dr Christopher Downs FTSE

Director, Food and Beverage Accelerator,
The University of Queensland

Food innovation leader



Dr Chris Downs is a globally recognised leader in food system innovation, operating at the interface of industry, academia and government. Across Australia, New Zealand and the USA, he has led large-scale investment in applied science, technology commercialisation and institutional change to deliver tangible industry

impact. At Australia's \$185 million Food and Beverage Accelerator, he has driven industry-led commercialisation of university research and new approaches to investment, incentives and intellectual property. Through his appointment to the National Food Council, he is shaping Australia's National Food Security Strategy, Feeding Australia. A strong advocate for STEM capability and workforce development, Dr Downs has held senior executive and board roles with national and international professional bodies, including the Institute of Food Technologists USA. He is a mentor to emerging leaders, founders and CEOs, and a respected international speaker and advisor on the future of food systems.

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Professor Amanda Ellis FTSE

Professor of Chemical Engineering,
The University of Melbourne
Nanotechnology trailblazer



Professor Amanda Ellis is a leading applied chemist and nanotechnology researcher. She is internationally recognised for her work in surface and interface science, with diverse applications spanning energy harvesting and storage, DNA nanotechnologies and sustainable building materials. Her patented inventions include turbostatic carbon films, transparent electrodes, DNA genotyping, antibiofouling membranes and nanoscale device fabrication. Through collaborations with industry, Professor Ellis has translated surface science into practical technologies including Australian banknotes, desalination membranes and lithium-ion battery anodes. She has extensive senior leadership experience, having led complex, multi-institutional projects and diverse strategic portfolios across science and engineering. Currently President of the Royal Australian Chemical Institute, she has received multiple honours recognising significant contributions to leadership, innovation and professional service.

Michael Farrell FTSE

Chairman and CEO, Resmed
Connected care strategist



Michael Farrell is an engineer-turned-executive who since 2013 has served as the CEO of Resmed, an Australian-founded medtech powerhouse in sleep health, breathing health and digital health technology delivered into the home. Under his leadership, Resmed has grown from a sleep apnoea device manufacturer into a connected healthcare technology leader, serving tens of millions of patients worldwide. Farrell guided this digital health transformation, embedding connectivity into devices and building the world's largest repositories of respiratory health data. These innovations have improved patient outcomes while reducing overall healthcare system costs. He has also overseen significant global growth, strategic acquisitions and growing investments in R&D, strengthening Australia's reputation for high-impact medical technology innovation. Farrell also serves on the boards of the Advanced Medical Device Association (AdvaMed) and Zimmer BioMet, a world-leading provider of implantable musculoskeletal medical devices.

Professor Lan Fu FTSE

Head of Department, Electronic Materials Engineering,
Australian National University
Cutting-edge materials scientist



Professor Fu has made transformative contributions to semiconductor materials science, engineering and nanotechnology. She has developed compact, energy-efficient and high-performance optoelectronic, sensing and energy technologies for applications spanning communications, defence,

health and renewable energy systems. As an inventor, she has translated research into impact through patents, licensing, industry partnerships and start-up formation. She played a key role in the establishment of Acton Lasers, commercialising semiconductor laser technologies, and invented Ketowhistle, a nanomaterial-based breath ketone sensor for non-invasive diabetes monitoring. Professor Fu is a Fellow of Optica, Chair of the Australian Academy of Science National Committee on Materials Science and Engineering, and President of the Australian Materials Research Society. Through these roles and other leadership and advisory roles, she has shaped research directions, promoted diversity and inclusion, and strengthened Australia's materials and nanotechnology ecosystem.

Professor Rebecca Gravina FTSE

TMR Chair in Structural Engineering,
The University of Queensland
Sustainable structures innovator



Professor Rebecca Gravina is a leading expert in structural engineering, driving the decarbonisation of the built environment through innovations in low-carbon concrete, fibre-reinforced polymers and recycled materials. Her fundamental research on ductility and bond-slip behaviour has critically shaped national and international standards, ensuring infrastructure resilience and enabling the circular economy. Professor Gravina leads a multimillion-dollar program modernising Queensland's transport network, delivering evidence-based guidance that improves sustainability, resilience and structural reliability through innovative materials and performance-based design. As Executive Director of the Australasian Certification Authority for Reinforcing and Structural Steels, she ensures the compliance of critical steel supply chains. Her expertise has been applied in world-leading projects like the Westgate Bridge strengthening. Professor Gravina is a former Chair of Engineers Australia's National Committee for Women in Engineering and is an advocate for diversity in the engineering profession.



Find out more



Applied AI



Astrophysics
and Space
Technologies



BioInnovation
Initiative



Ethics and
Agency



Future
Communications



Hearing



Lifespan Health
and Wellbeing



Minds and
Intelligences



Motor Neuron
Disease



Performance
and Expertise



Smart Green
Cities



Transforming
Energy Markets

(YOU)^{US}

Advancing the science and practice of conscience
to drive world-leading interdisciplinary
research excellence with world-changing impact



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IMPACT!

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Professor Ben Hayes FTSE

Professorial Research Fellow, Queensland Alliance for Agriculture and Food Innovation, The University of Queensland

Precision breeding pioneer



Professor Ben Hayes has made exceptional contributions to agricultural productivity and sustainability through the development and application of cutting-edge breeding technologies. He is a co-inventor of genomic selection, an approach that has revolutionised livestock and crop breeding globally and led to major

advances in human health. He was also instrumental in implementing optimal haplotype selection for breeding crops which will be a foundation for other applications including gene editing and synthetic biology. Professor Hayes has built large multidisciplinary initiatives. He initiated and led the 1000 Bull Genomes Project, a consortium of 32 institutes worldwide that is now a global reference point for cattle genomics. He is Research Director for the Zero Net Emissions from Agriculture Cooperative Research Centre, working with 65 industry partners to roll out emissions reduction technologies. He plays a pivotal role in capacity building, training and mentoring staff and students.

Hon Dr Parwinder Kaur FTSE MLC

Member of the Legislative Council, Parliament of Western Australia

Science and policy changemaker



Hon Dr Parwinder Kaur MLC is a distinguished scientist, award-winning innovation leader and Member of the Parliament of Western Australia, advancing science, technology and inclusive public policy. A DNA expert, her work advanced biodiversity genomics, agricultural resilience and translational biotechnology. Dr Kaur

founded the Australian chapter for DNA Zoo, a global genomics consortium, enabling the genome sequencing of more than 45 iconic Australian species. Elected in 2025 to the Legislative Council of Western Australia, she has brought scientific depth and inclusive leadership to decision-making. She served as special advisor on the Western Australian 10-year Science and Technology Plan and contributed to the Australian Government's Pathways to Diversity in STEM Review. She has also established the Parliamentary Friends of Science, Medical Advancement, Research, Technology and Talent (SMARTT) to champion innovation and catalyse collaboration.

Dr Melita Keywood FTSE

Principal Senior Research Scientist, CSIRO

Aerosol-climate expert and air quality leader



Dr Melita Keywood has made outstanding contributions to air quality, aerosol and climate science. Her research has transformed our understanding of aerosols - such as pollution from cities and bushfires - and their impacts on people, ecosystems and climate. For almost three decades, Dr Keywood has led

nationally significant observing programs and contributed to the development and advancement of atmospheric observing capabilities that track changes in air pollution and the drivers of climate change. She has also built new observing technologies and research infrastructure. Her research has advanced understanding of particulate pollution in NSW and Victoria, identifying air quality policy issues and knowledge gaps. Under her leadership, long-term observations from Australia's Kennaook/Cape Grim weather station provide some of the only Southern Hemisphere data essential for improving climate models and informing global climate and environmental assessments. She has translated scientific insights into practical outcomes, informing policies and strengthening environmental regulation and verification.

Robin Khuda FTSE

Founder and CEO, AirTrunk, Founder of the Khuda Family Foundation

Hyperscale data centre entrepreneur



Robin Khuda is the Founder and CEO of AirTrunk, which develops and operates data centres across Asia-Pacific and the Middle East. Data centres support essential infrastructure that powers everyday life, from online services to communications. AirTrunk was acquired by Blackstone and CPP Investments in 2024 for A\$24 billion. Khuda

continues to lead the company's focus on responsible development, resource efficiency and long-term community value. His commitment to social impact is also reflected in the Khuda Family Foundation, which he founded and through which he donated A\$100 million to the University of Sydney to support a 20-year program creating STEM pathways for girls from Western Sydney.

Professor Glenn King

FTSE FAA FAHMS

Chief Scientific Officer, Infensa Bioscience

Venom drug trailblazer



Professor Glenn King is the leading international authority on arthropod venoms and harnessing their components for human therapeutics and next-generation bioinsecticides. His research spans fundamental studies of venomous animals – uncovering the evolution, composition and diversity of venoms – to research

translation via the founding of three start-up companies. From the funnel-web spider venom, he developed the world's first peptide-based bioinsecticide that is safe for humans and bee-friendly. This discovery has been commercialised via Vestaron, now valued at \$1 billion. His lab has also identified new drug candidates in venom, including intraoperative imaging agents and leads for the treatment of epilepsy, heart attack, stroke, and chronic pain associated with endometriosis and irritable bowel syndrome. As co-founder of Infensa Bioscience, he has guided a promising heart attack treatment derived from funnel-web venom into clinical trials. In 2023, Professor King received the Prime Minister's Prize for Innovation for his groundbreaking translational research.

Grant King FTSE

Chair, Transgrid

Energy policy shaper



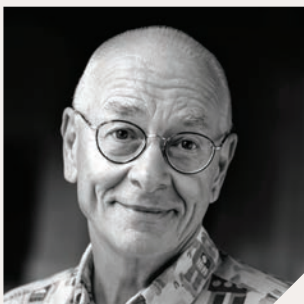
Grant King's career is defined by visionary leadership, technological innovation and an enduring contribution to Australia's energy sector. As a former Managing Director of Origin Energy, Grant King led one of the nation's most significant transformations in an energy company. In this effort, he integrated energy transition with major

investments in generation, retail and natural gas. He also played a pivotal role in advancing the Australia Pacific LNG project in Queensland, strengthening Australia's position in global energy markets and supporting domestic energy security and transition. King has also contributed extensively to public policy, innovation and industry development through board and advisory roles, including Sydney Water, the Climate Change Authority, Transgrid and the Great Barrier Reef Foundation. He also served as President of the Business Council of Australia.

HONORARY FELLOW

Dr Karl Kruszelnicki AM FTSE

Beloved science communicator



Dr Karl Kruszelnicki is a household name across Australia for his more than 40 years of public communication of science and technology across radio, TV, books, podcasts and online. Many people's introduction to the wonders of science and the joy of curiosity in the world around us, Dr Karl has been celebrated in Australia and

around the world, including through the 2019 UNESCO Kalinga Prize for the Popularisation of Science and the 2002 Ig Nobel for research into belly button lint. An unparalleled presenter and communicator of both science and the pure pleasure we can all derive from it; Dr Karl is a much-loved Australian icon and an inspiration to science communicators worldwide.

Professor Simon Lucey FTSE

Australian Institute of Machine Learning,

Adelaide University

Machine learning architect



Professor Simon Lucey is an internationally recognised AI researcher whose work has advanced foundational methods in machine learning and computer vision and enabled their deployment in large-scale engineering systems. His contributions to visual representation, efficient learning algorithms and autonomous perception

have been translated into safety-critical autonomous vehicle platforms, large-scale financial systems and widely adopted benchmark datasets used across academia and industry. As Director of the Australian Institute for Machine Learning, he led the development of nationally significant AI capability, training a skilled workforce and overseeing major partnerships across government and global technology and defence organisations. Through research, translation and institution-building, he has strengthened Australia's capacity to develop and deploy advanced AI technologies and contributed to the global evolution of modern machine learning.

Professor Graciela Metternicht FTSE

Dean of Science, Western Sydney University
Environmental and geospatial scientist



Professor Graciela Metternicht has made outstanding contributions to the development and application of geospatial technologies, earth observation and integrated environmental assessment to address complex sustainability challenges. Her research – spanning land degradation, spatial planning and sustainable

development – has informed governments, industry and international organisations. She has developed earth-observation methods to translate complex environmental data into decision support systems. These operational solutions have generated on-the-ground impact in agriculture, carbon projects and landscape restoration. Professor Metternicht has contributed expertise to global science policy processes through the United Nations Environment Programme, the World Meteorological Organization, the UN Convention to Combat Desertification and Intergovernmental Science-Policy Platform on Biodiversity and Ecosystem Services. Through senior leadership roles in academia, she has built interdisciplinary teams, mentored emerging researchers and scaled inclusive STEM initiatives. She also serves as a member of the Threatened Species Scientific Committee, providing independent evidence-based advice to strengthen biodiversity conservation and support biodiversity conservation in Australia.

Professor Jian-Feng Nie FTSE

Professor in Materials Science and Engineering,
Monash University
Novel alloy innovator



Jian-Feng Nie is a leading innovator in light alloys whose research has encompassed manufacturing capability, commercial value creation, and global industrial impact. Through advances in alloy chemistry and microstructural control, he has pioneered high-performance magnesium alloys suitable for

demanding engineering applications. This includes magnesium alloys deployed in the 2024 Chevrolet Corvette E-Ray and other automotive products, delivering substantial weight reduction, efficiency gains, and enhanced recyclability and sustainability in a multi-billion-dollar global automotive market. He also invented other patented magnesium alloys and processing methods now adopted by the world's largest steelmaker, enabling them to enter the magnesium market in 2020. In parallel, his breakthroughs in biodegradable metals underpin next-generation orthopedic implants advancing clinical translation and patient care. Professor Nie is also shaping materials science research through his roles overseeing four premier materials science journals.

Dr Elisa Mokany FTSE

Chief Technology Officer and Co-Founder, SpeedX
Diagnostics gamechanger



Dr Elisa Mokany is a biotechnology changemaker and molecular innovator whose work has advanced the field of infectious disease diagnostics and antimicrobial resistance detection. As a founder and scientific leader at SpeedX, she has driven the development and commercialisation of novel

molecular diagnostic technologies, now translated into fully approved products adopted across international markets. Her innovations enable more precise, rapid and scalable diagnostic solutions, supporting informed clinical decision-making and improved patient outcomes globally. Her breakthroughs have contributed significantly to strengthening Australia's position in precision diagnostics and to global efforts addressing antimicrobial resistance. Dr Mokany also contributes her expertise to accelerate antimicrobial stewardship through advisory roles with the AMR Hub and CARB-X. She has been the recipient of numerous prestigious awards including the Prime Minister's Prize for Innovation in 2022 and the Clunies Ross Award for Innovation in 2020.

Professor Nicholas Opie FTSE

Founder, Director and CEO, Ultra Bionics Pty Ltd
Neurotechnology innovator



Professor Nick Opie is a pioneering and multi-award-winning biomedical engineer. He has played a leading role in the development and clinical translation of multiple life-changing inventions, including bionic eyes, brain-computer interfaces and deep-brain stimulation systems. He is a founder and director of

two neurotechnology companies. At Synchron, he led the design, fabrication and clinical testing of Stentrode, a neural interface that has restored communication and independence to people with severe paralysis. At Ultra Bionics, he is advancing novel deep-brain neuromodulation technology to improve the lives of people with neurological and neuropsychiatric conditions, and he was recently appointed Director of ASX-listed company Control Bionics. Professor Opie has mentored and trained more than 85 teams and individuals to develop and grow their own startups. He is a scientific advisor to eight medical technology companies.

Katherine Richards AM FTSE CSC

Chief Engineer, Engineers Australia
Engineering powerhouse



Katherine Richards has made an outstanding contribution to Australia's engineering, nuclear safety and national security during both her military and civilian careers. For over 36 years, Katherine Richards served in the Royal Australian Navy with distinction. She was the first woman to lead a warship's engineering department. She saw operational service

in the Sub-Antarctic, Solomon Islands and Persian Gulf. As a Rear Admiral, she was appointed as the Head of Navy Engineering. Leading over 5,000 engineers, she ensured the safety, technical integrity and regulatory assurance of the naval fleet. On completion of this role, she was tasked with designing the new regulatory system for the AUKUS program and led the creation of the Australian Naval Nuclear Powered Safety Regulator. Following her retirement from active service, Katherine Richards became the Chief Engineer for Engineers Australia. In this role, she is a key public voice for the nation's engineers and leads national conversations that centre on technology and workforce issues. A passionate advocate for engineering and STEM, Katherine champions the visibility of STEM roles for children. Her work with the not-for-profit sector is focused on helping young people to reach their potential in technology-based careers. Her achievements have been recognised through the Conspicuous Service Cross, Member of the Order of Australia, and Honorary Fellowship of Engineers Australia. As an ANSTO Board Member and Chief Engineer at Engineers Australia, she continues to provide national leadership, advancing Australia's engineering capability and the STEM workforce.

Laureate Professor Kate Smith-Miles AO FTSE FAA

Pro Vice-Chancellor (Research Capability),
The University of Melbourne
Game-changing applied mathematician



Laureate Professor Kate Smith-Miles is known for her paradigm-shifting research in applied mathematics. Her Instance Space Analysis methodology provides a mathematically rigorous foundation for stress testing algorithms, solving a long-standing challenge in algorithm performance. It has had a profound impact on research practice and

is used internationally by thousands of researchers and industry groups across optimisation, machine learning, AI, scheduling, logistics and many other computational fields. Her techniques have been applied in medical diagnostics, manufacturing design, water quality management and defence and quantum capability assessment.

Professor Smith-Miles supports research capability, integrity and policy as Pro Vice-Chancellor, and is an outstanding mentor and diversity champion. She proposed and led an ARC Industrial Transformation Training Centre where PhD students work with industry, improving productivity and efficiency by using mathematical optimisation techniques to solve complex problems. She has been recognised with prestigious awards from the Australian Mathematics and Applied Mathematics Societies.

Professor Flora Salim FTSE

Professor of Computer Science and Engineering,
UNSW Sydney
Driving human-centric AI



Professor Flora Salim is a highly regarded authority in artificial intelligence, machine learning and spatiotemporal data analytics. She pioneered foundation-model approaches for time-series and multimodal data, establishing cross-modal machine learning and alignment methods - including with large

language models - that now influence international research and industrial practice, and have been adopted by major industrial research labs. Her work is shaping best practice in automated decision-making, and underpins AI systems used in defence decision support, urban mobility forecasting, energy-efficient buildings and infectious disease modelling. She has delivered real-world decision-making systems with patented and deployed solutions in productivity software, digital health, transport systems, smart cities and digital infrastructure. Professor Salim leads major multidisciplinary research programs advancing responsible and explainable AI, and harnessing machine learning to deliver trustworthy carbon emissions and sustainability reporting. She also shapes national research direction through roles on the Australian Academy of Sciences' National Committee for Information and Computing Sciences and as a member of the Australian Research Council College of Experts.

Mark Stickells AM FTSE FAICD

CEO, Pawsey Supercomputing Research Centre
Supercomputing pathbreaker



Mark Stickells is an accomplished leader in advanced research infrastructure. As CEO of the Pawsey Supercomputing Research Centre, he has led Australia's most significant step-change in high-performance computing (HPC), delivering the Southern Hemisphere's most powerful research

supercomputer. He also pioneered world-first hybrid quantum-classical integration within a production HPC environment. Under his leadership, Pawsey has evolved from a specialist academic facility to national digital infrastructure supporting thousands of researchers across climate science, health, AI, advanced manufacturing and astronomy. He also instigated a program through which hundreds of Australian researchers have modernised and optimised their software for next-generation systems, uplifting the sector's efficiency and impact. Stickells is an influential policy advisor, with director roles at Science and Technology Australia and the Australian Research Council. He has materially strengthened Australia's scientific competitiveness and positioned the nation among global advanced computing leaders.

Professor Rajeev Varshney

FTSE FAA FRS

Director, Centre for Crop and Food Innovation; Director, WA State Agricultural Biotechnology Centre; International Chair - Agriculture & Food Security, Murdoch University

Crop genomics champion



Professor Rajeev Varshney has reshaped the global landscape of agricultural biotechnology, translating genomic insights into industry partnerships, scalable platforms and practical tools for major crops. His work has contributed to the development of high-yielding and climate-resilient crop varieties for

Australia, Asia and Africa, delivering improved productivity and stability under challenging environments. In Australia, his breakthrough approach has created cost-effective and accessible genomic resources and breeding platforms for wheat, pulses and horticultural crops, accelerating precision breeding. His work has strengthened Australia's biotechnology capability, supporting grower profitability, sustainability and global competitiveness across the nation's \$100-billion agricultural sector. A strong advocate for STEM diversity, equity and inclusion, he has trained more than 450 scientists across the globe and raised the profile of Australian agricultural science on the world stage.

Liz Westcott FTSE

CEO and Managing Director Woodside Energy

Global energy leader



Liz was appointed Chief Executive Officer and Managing Director of Woodside in March 2026. She is a highly regarded business and engineering leader with a distinguished career spanning the global energy sector. Beginning her career with 25 years at ExxonMobil, she has demonstrated impact in major project delivery,

technology innovation and industrial commercialisation. At Woodside Energy, she has created and implemented pivotal strategies to position Woodside's Australian business for the future, securing operatorship of the massive Gippsland Basin Joint Venture in addition to operating the signature North West Shelf and Pluto LNG projects. Under her leadership, Woodside is working to develop and deploy science and engineering technology that enhances safety, efficiency and environmental performance, including digital twin technology to monitor asset performance and helicopter-mounted LIDAR to detect and measure methane emissions. A prominent advocate for gender equity in STEM and industry leadership, Westcott actively supports initiatives that strengthen diversity and inclusion across the engineering and energy sectors. She is also a member of Executive Women.

Honorary Professor Xingjin Wang

FTSE

Founder and Executive Chair, Denison Gas

Energy entrepreneur



Honorary Professor Xingjin Wang has transformed Australia's unconventional gas sector and demonstrated outstanding leadership in energy innovation. His discovery of enhanced coal seam gas (CSG) permeability contributed to the theoretical foundation that enabled the modern CSG industry to develop in

Australia. Applying a breakthrough tight gas exploration approach, he revived the previously mothballed Denison Trough Gas fields, establishing Denison Gas as a growing, reliable domestic supplier. His work has secured hundreds of millions of dollars in overseas investment into Australia, created hundreds of jobs locally and established meaningful partnerships with the native title holders in Queensland. Honorary Professor Wang has facilitated landmark collaboration between the University of Queensland, international research institutes and industry to investigate the repurposing of depleted gas fields for compressed air energy storage projects. His innovations address Australia's energy security and resilience, as well as resource development and new energy technologies.

FOREIGN FELLOW

Professor Graham Wren

OBE FTSE FREng

Senior Executive, University of Strathclyde

Translational research builder



Professor Graham Wren is an internationally distinguished engineering leader and innovation strategist. His career, spanning more than 40 years, has been defined by the creation of enduring infrastructure, cross-sector collaboration models and international research ecosystems. He has shaped globally significant initiatives

in advanced manufacturing, energy systems, aerospace and technology translation, delivering economic growth and industrial transformation. He has chaired an international review team, that examined the business case for government investment in enhanced facilities and capabilities for Australian nuclear security science supporting national security, resilience and international compliance. He is Distinguished Vice-Chancellor's Fellow at UNSW, where he has led a UK-Australia proposal for a significant program supporting AUKUS. Professor Wren is renowned for his deep expertise in establishing and governing major research and innovation centres, aligning public investment with industry need, and accelerating commercialisation outcomes.

Professor Chunxia Zhao FTSE

Professor, Adelaide University

Bioinspired nanotechnology disruptor



Professor Chunxia Zhao is a distinguished leader in nanobiotechnology whose disruptive innovations have strengthened Australia's national capability in health, critical minerals and agriculture. As Director of the mRNA LIFT Platform and the Adelaide RNA Innovation Hub, she spearheaded the establishment of

the nation's mRNA therapeutics and manufacturing capability. Her pioneering biomining technology transcended disciplinary boundaries, repurposing a technique from drug development to design a green approach for separation of critical minerals. Professor Zhao has reimagined nanomedicine as a scalable, data-driven discipline, with her spinout company SA Nano Pty Ltd commercialising novel, cost-effective devices for synthesis and screening of nanoparticles. Her encapsulation technology underpinned the world's first oral multi-organ radiation-protective nanomedicine for clinical translation, and in agriculture, it has improved animal feed additives in partnership with industry.

Dr Liming Zhu FTSE

Research Director, CSIRO

Trustworthy AI innovator



Dr Liming Zhu is a leading scientist in software and AI engineering who has helped establish responsible AI engineering as a rigorous lifecycle-based discipline. His research has advanced practical approaches for how AI systems are designed, verified, governed and safely deployed in real

operational environments. He has provided technical leadership and expertise informing national AI safety standards and guidance, and advised governments on digital infrastructure, AI safety, cybersecurity and critical infrastructure resilience. His research and technical leadership have contributed to international standards and Australian digital infrastructure, including blockchain and distributed-ledger standards, the Consumer Data Right and industry data standards. He has also contributed to international policy via AI safety science initiatives through OECD.AI and the International AI Safety Report. His digital and AI research leadership within CSIRO, Australia's national science agency, has strengthened the research ecosystem and contributed to the broader technology economy.

2026

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ATSE Awards Gala Dinner
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ATSE
AWARDS

PANEL 1 MODERATOR

Priya Guha



Priya Guha is an electrical and renewable energy engineer focused on utility-scale solar, wind and battery energy storage systems that support Australia's clean energy transition. She works across the design, development and delivery of large-scale renewable energy projects that strengthen grid stability and enable greater renewable energy integration. She is currently

undertaking a Master of Engineering Science at UNSW as part of the ATSE Elevate program.

PANEL 2 MODERATOR

Conrad Guimaraes



Conrad is the founder and CEO of Coaxial AI, a startup that develops AI-enabled robots to accelerate the fit out and commissioning of data centres. Conrad served in technical product management roles at Lyro Robotics, Brighte, Marlee and the Department of Defence. He also worked as a Policy Advisor for the Australian Energy Market Commission and founded the Asia-Pacific Youth Organisation.

PANEL 3 MODERATOR

Dr Vivien Rolland



Dr Rolland is a scientist and technology leader with experience spanning academia and government, who is passionate about the role of science and technology in addressing complex national and global challenges. Throughout his career, he has translated biotechnology, advanced imaging and applied artificial intelligence into practical solutions for

industry and society. Vivien is a Group Leader at the Defence Science and Technology Group (DSTG), where he helps inform evidence-based decisions and future capability outcomes through science and technology. Prior to joining Defence, he worked at CSIRO and The Australian National University (ANU), contributing to a range of applied research and innovation programs. His achievements have been recognised through the ACT Tall Poppy Scientist of the Year Award (2022), a Nuffield Australia Fellowship (2023), and the ATSE ICM Agrifood Award (2024). Vivien is passionate about building a strong, diverse and inclusive STEM sector and is an active mentor and advocate for emerging scientists, engineers and innovators through initiatives such as ATSE's IMNIS and Elevate programs.

PANEL 4 MODERATOR

Dr Tejas Canchi



Dr Tejas Canchi is a Senior Verification and Validation Engineer at ResMed, working in the development of medical devices for sleep and respiratory care. His career has spanned academic research, systems engineering, medical-device development, regulatory science, and verification and validation. Tejas completed his PhD in Mechanical Engineering

at Nanyang Technological University, Singapore, where his research used computational modelling to better understand the risk of abdominal aortic aneurysm rupture. At ResMed, Tejas has worked across the product development process, helping translate engineering requirements and early prototypes into products that can be tested, demonstrated to be safe and effective, approved by regulators, and ultimately made available to patients.

PANEL 5 MODERATOR

Shehab Khan Noor



Shehab Khan Noor is a final-year Doctoral Candidate within the School of Electrical Engineering and Telecommunications at UNSW Sydney. His current research investigates polymer fibers designed for next-generation THz Transmissions. Shehab received the Gold Medal for Best Engineering Graduate

from the Institution of Engineers Malaysia for his Bachelor's degree and the IEEE Antennas, Microwave and Propagation Society Malaysia Chapter Best Master's Thesis Award, 2021 and 2023, respectively. He has published more than 20 research papers in peer-reviewed journals, conference proceedings, and book chapters, and currently serves as the Chair of the UNSW Industry PhD Student Advisory Board and one of the mentees of ATSE IMNIS cohort 2026.

PANEL 6 MODERATOR

Meghan Hennessy



Meg Hennessy is an engineer and nuclear regulatory professional, currently working as a Licensing Officer at ANSTO. With a background in biomedical and mechanical engineering, she began her career in mechanical engineering, supporting ANSTO's nuclear medicine production facilities, before moving into nuclear licensing

and regulation. As a former ATSE Elevate Leadership Scholar, she was supported to pursue further study and is currently undertaking a Master of Engineering Science, specialising in Nuclear Engineering, at UNSW. She is also an alumna of the IAEA Marie Skłodowska-Curie Fellowship Programme, the 2026 DMTC Guest of the Chair Fellow, and Treasurer of the Australian Young Generation in Nuclear (AusYGN). Meg is passionate about the value of diverse perspectives and supporting the next generation of science and engineering professionals. Having benefited from the opportunities provided through ATSE's Elevate program, she is keen to encourage others to pursue their own pathways and ambitions in STEM.

EMCEE

Dr Gunilla Burrowes FTSE



Electrical engineer Dr Gunilla Burrowes is widely recognised for significant achievements in three parallel careers. She is an expert in communications between swarming autonomous underwater vehicles.

She has been a driving force for technology start-ups in the Newcastle NSW region. As a technology entrepreneur she was the Founding Chair of the first incubator and co-working space for CleanTech and SmartCity start-ups in Australia and she coaches and mentors start-up founders. Throughout her career

she has been a champion for women in engineering, and as a gender consultant she works to improve gender diversity & equity in STEM organisations.

As an Angel Investor, Co-Founder of BlueZone Group and Director at SmartCrete CRC, Gunilla has fostered innovation in underwater technology and contributed to collaborative efforts in smart infrastructure solutions.

Her work focuses on governance, strategic planning, and advancing technological solutions that drive impactful change. With a strong foundation in start-ups and governance, her mission is to enable sustainable, technology-driven progress for businesses and communities locally, nationally, and globally.



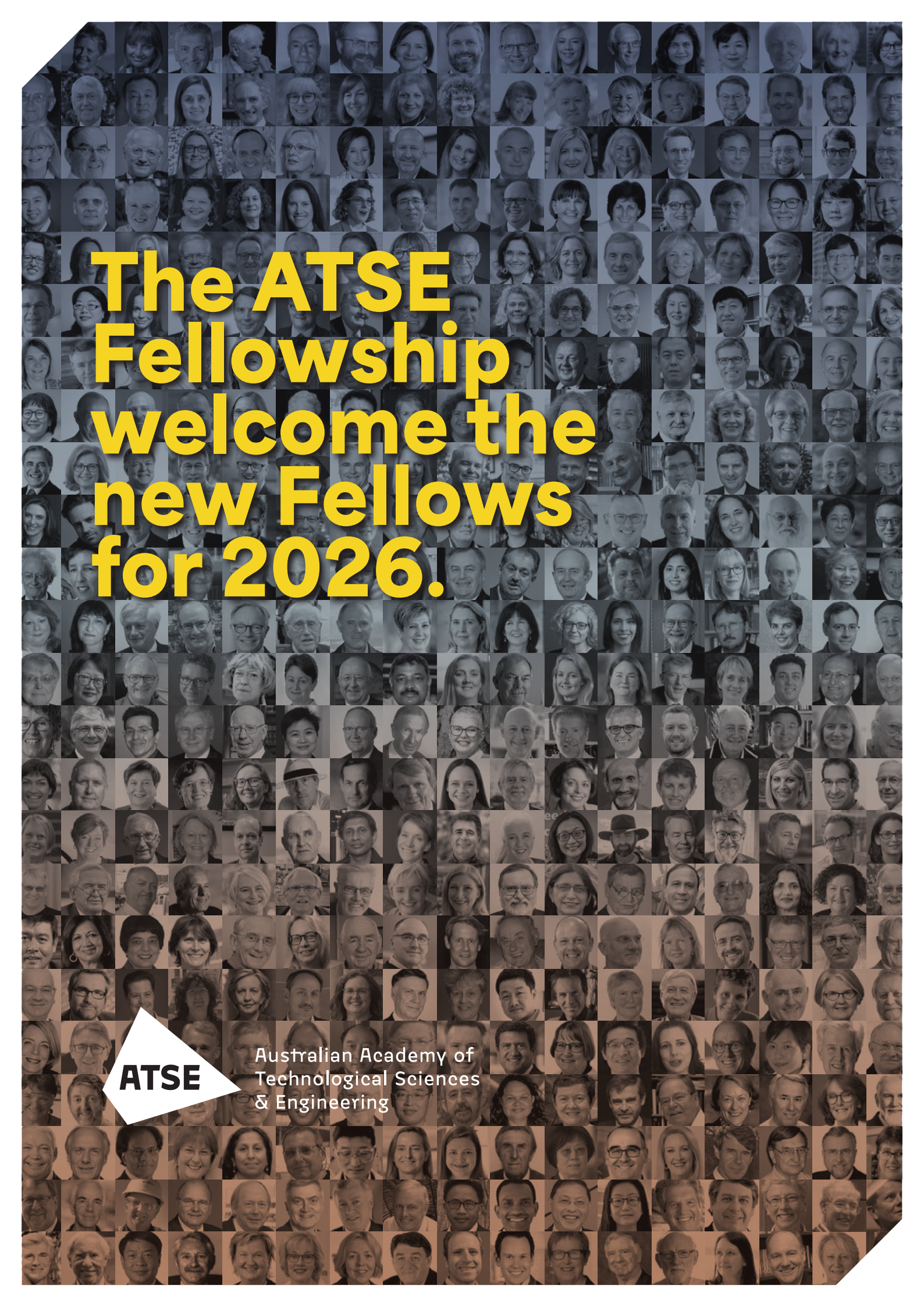
The Australian Academy of Technological Sciences and Engineering Fellows and staff live and work on Aboriginal and Torres Strait Islander lands and waters across Australia.

As we help Australians understand and use technology to solve complex problems, we remain mindful of the 60,000 years of science, technology and innovation represented by the world's oldest continuing cultures.

We seek always to respect Aboriginal and Torres Strait Islander Elders, both from history and today, and to respect the deep knowledge embodied in their ancient and sustainable cultures and knowledge. We acknowledge the Traditional Owners and pay respects to their Elders. We acknowledge Traditional Knowledge, and the deep history of innovation it embodies.

Our vision for reconciliation is that all Australians recognise and value Aboriginal and Torres Strait Islander custodianship as one of the oldest knowledge systems on the planet. ATSE's Reconciliation Action Plan can be found on our website.

Left: *Ripples of memory, pathways of tomorrow*
Robbie Beresford



The ATSE Fellowship welcome the new Fellows for 2026.

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