

## Message From The Dean



As we move into the final quarter of the year, our School continues to thrive and make significant strides, aligned with the broader ambitions of Western Sydney University. I would like to begin by welcoming our new Vice-Chancellor, Distinguished Professor George Williams AO, who commenced in July. The Vice-Chancellor brings a bold vision to elevate the University's global standing, with a strong focus on supporting and strengthening key areas within our School. His leadership will be pivotal in advancing our research, academic excellence, and industry engagement. We are fully committed to embracing this exciting new chapter, ensuring that our School plays a central role in achieving these ambitious goals.

Our School continues to invest heavily in academic and professional staff. We are addressing a key concern of mine—student-staff ratios—by recruiting six new academic and two professional staff members in addition to several other appointments that we have recently made through the Decasualisation Program. This will ensure we maintain the high-quality learning environment our students deserve. The recruitment efforts also reflect our commitment to continuous improvement and providing students with the support they need to succeed.

Speaking of success, I am delighted to share several student achievements. Amanda Eessa, a Master of Architecture student, was a finalist in the prestigious NSW Housing Pattern Book competition. Thomas Hayes, an Honours student in Industrial Design, received a Good Design Award for his innovative agricultural electric bike. Additionally, two of our Industrial Design alumni were part of the award-winning ResMed design team. Electrical Engineering student, the phenomenal Tim Hodge, won two gold medals, in swimming, at this year's Paralympics. These achievements exemplify the calibre of talent and dedication within our School.

International collaboration remains a key focus, as evidenced by my recent visit to our new campus in Surabaya, Indonesia, in July, where I also explored research partnerships with colleagues at ITS. Additionally, I was part of a WSU delegation that welcomed representatives from India's TKM Group

of Educational Institutions in August to discuss future partnerships. The momentum from these initiatives will undoubtedly enhance our global reach and collaborative opportunities.

Our School has also hosted a series of important events and delegations. On 24th July, we welcomed representatives from the Advanced Manufacturing Research Facility, a key partner in the region's advanced manufacturing ecosystem, and on 29th July, we hosted external examiners for RICS and AIQS accreditation. In early August, I had the privilege of hosting Penrith Mayor Todd Carney, who visited our Solar Car team to learn more about the innovative work being done by our students. Just last week, we hosted the Vice-Chancellor during his visit to Kingswood Campus, where he met with members of our leadership team, including myself, Deputy Dean, and Provost of the Kingswood Campus, Professor Yang Xiang, and School Manager (Deputy Provost of the Kingswood Campus) Ms Jodie Clark, to discuss the School's direction and aspirations.

In line with our commitment to supporting our local community and fostering unique learning experiences to students in the region, we ran the International Spacecraft Challenge in August, in partnership with One Giant Leap Australia and the School of Education. The event brought together 32 high school students who designed spacecraft and off-earth habitats under the guidance of scientists and engineers. A highlight was a live conversation with astronaut Greg Chamitoff, who inspired the students with insights into space exploration.

We also continue to forge meaningful industry partnerships. In September, I had the pleasure of signing an MoU with the Institute of Public Works Engineering Australasia, a collaboration that will open new pathways for student internships, guest lecturing, and industry engagement. Additionally, we are excited to welcome OMRON Automation and Robotics to our Engineering Innovation Hub in Parramatta, strengthening our partnership on research projects and providing our students access to cutting-edge robotics facilities.

Looking ahead, we remain mindful of the challenges posed by the government's decision to cap international student numbers. While this presents financial pressure, our School is well-positioned to navigate these changes with strategic foresight and adaptability.

Finally, I am proud of our student teams' involvement in international competitions. Our Robotics, Automation, and Manufacturing (RAMS) team recently participated in the RoboCup competition in Eindhoven, a significant milestone for our School. Our Solar Car team recently completed a successful regional roadshow, promoting STEM education to students and communities across New South Wales. The Solar Car team are now working around the clock as they develop their new car for the next World Solar Car Challenge which is less than a year away. These flagship projects continue to offer our students invaluable, hands-on experience, and I am keen to support such endeavours to provide opportunities for most, if not all, of our students to get involved in these types of opportunities.

As always, I look forward to what the next quarter will bring as we continue to grow and innovate.

Onwards and upwards!

**Distinguished Professor Brian G. Falzon, CEng MAICD FRAeS**  
**Dean of Engineering, Design and Built Environment**  
Chair of Composite Materials and Aerospace Structures



## The Buzz

Industrial Design (ID) programs at WSU celebrate 30 years in 2024 providing a timely opportunity to acknowledge the scores graduates, staff, and industry partnerships which have added excitement to a multitude of interdisciplinary projects and signature learning experiences for students. Advancing on the premise that everything is designed, and that design should make the world a better place, our staff and students have strived and succeeded in advancing a worldview improving the usability, sustainability, liveability of our built environment in products and services from a central health and wellbeing viewpoint supporting our students' skills for lifelong learning and employment agility in the digital age.

Over the years, Industrial Design studies have been offered across several campuses within our



network of campuses and aligned with various disciplines and schools, including business, health, science, computing, built environment, and engineering. This diverse positioning has led to impactful outcomes, generating new value in areas such as brand and product marketing, human factors (ergonomics, biomechanics, human-centred design), manufacturing materials and processes, design semantics (exploring product form), business model innovation, digital design communication for manufacture, and core embedded sustainable design professional practice, with the latter considerably

influencing cross-disciplinary viewpoints for decades via Design Management and Sustainable Design specialisations unique to the sector with representations to the WSU Engineering program's national accreditation process.

## Teaching and Learning

### 2024 Association of Architecture Schools Australia (AASA) Education Prize

Congratulations to our designers in architecture and industrial design on their competition success! Leaving their mark on the highly prestigious 2024 Association of Architecture Schools Australia (AASA) Education Prize, Rob Meyerson, Vesna Trobec and Parisa Ziaesaeidi have been shortlisted for their submission; Studio Indigenous: Budj Bim, Drawing a Cultural Landscape & Indigenous Pod & Drawing Pod. This is major national award and forum and represents a huge professional accomplishment for Rob, Vesna, and Parisa.

### Pattern Book Design Competition

Our architecture Master's student Amanda Eessa has been shortlisted for the student category of the Pattern Book Design Competition run by the NSW Government Architects Office. This is another high profile architecture competition and speaks to the high quality of the Program.

### Good Design Award

Final year Industrial Design student, Thomas Hayes has become a Good Design Award winner for his rural electric motorcycle "Aspect", an outstanding success on a national stage! Aspect was conceived as a response to the removal of quad bikes from the Australian market in 2021 and features enhanced ergonomics and functionality whilst maintaining high stability and being environmentally friendly.



### Maxton Fox Emerging Designer Award 2024

Also from Industrial Design, students from ENGR2026 Design Semantics (SC Karen Yevenes) collaborated with local design company Maxton Fox Joinery to participate in the Maxton Fox Emerging Designer Award 2024. Held on 7th of September at Kaolin Surfaces, student concepts were exhibited publicly and received votes by visitors. Students Adrian Marsano and Claire McNally were voted winners for their "Centro" design, which will be further developed by Maxton Fox for commercial and production feasibility during 2025/26. An exciting outcome for the students and Karen, and a great example of highly effective industry engagement!

### Architecture News

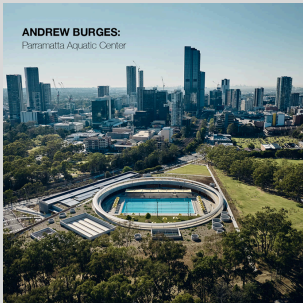
The Architecture program has also been highly active engaging with prominent architects to meet with our students and share their experiences. On 16th September, Andrew Burges visited and spoke about the impressive Parramatta Aquatic Centre project which has also been recently shortlisted for a Dezeen International Architecture Award. On 8th of October Peter Strutchbury visited and gave his “Looking for Light” lecture. Peter is an AIA Gold Medallist and contributor to the WSU Indigenous Centre of Excellence project. Finally on 17th of October, Marlon Blackwell visited and discussed his work in the public and civic realm.

### Master of Project Management accreditation

The Master of Project Management team have been successful in securing full accreditation status from the prestigious Project Management Institute (PMI) Global Accreditation Centre for Project Management Education Programs (GAC). Congratulations to Sean and the team!

### Parramatta Aquatic Centre

The Parramatta Aquatic Centre has just been shortlisted for the Dezeen International Architecture Award 2024. Marlon Blackwell is a recipient of the American Institute of Architects gold medal and has a monograph just published by Princeton Architectural Press. Peter Stutchbury is part of the design team for WSU ICE and also a winner of the Australian Institute of Architects Gold Medal and one of Australia’s most awarded architects.



## Research and HDR News

School HDR Awards			School Researcher Awards		
<b>HDR Awards</b>			<b>Researcher Awards</b>		
<b>Award for HDR Top 2023 Journal Publication Prize</b>			<b>Award for Top 2023 Journal Publication Prize</b>		
Md Dehwar Hossain	Highly Recommended		Qinjun (Lavender) Liu	Highly Recommended	
Masoud Mohammadi	Winner		Karim Samad	Winner	
<b>Award for Excellence in HDR Publication</b>			<b>Award for Excellence in Academic Publication</b>		
Yijun Zhou	Winner		Robert Osei-Kyei	Winner	
<b>Award for Excellence in HDR Thesis</b>			<b>Award for Early-Career Researcher of the Year</b>		
Bulbul Ahmed	Winner		Anthony Butera	Winner	
			<b>Award for Researcher of the Year</b>		
			Zhong Tao	Winner	
			<b>Award for Researcher of the Year through National and International Collaborations</b>		
			Fan Hu	Winner	

We are excited to announce the recipients of this year’s School Researcher and HDR Awards, celebrating outstanding contributions to research excellence within our community. These awards recognise researchers and HDR students whose innovative and groundbreaking research findings have made a significant impact in their fields. Their dedication and hard work exemplify our commitment to fostering a vibrant research culture. Join us in congratulating these remarkable individuals for their achievements, and inspiring future generations of researchers at our school!

We are thrilled to extend our heartfelt congratulations to our outstanding scientists who have been recognised among the top 2% of researchers in the world! Their exceptional contributions to their respective disciplines showcase the highest standards of excellence and innovation. This remarkable recognition not only reflects their hard work and dedication but also elevates our institution’s reputation in the global scientific community.

Ranking for Top 2% Scientists in the World		
Researcher	Top-2%-Scientist ranking (career-long)	Top-2%-Scientist ranking (single-year 2023)
Vivian Tam	9,390 ( 14/43,481)	980 (11/43,481)
Zhong Tao	58,940 (107/57,831)	12,581 (54/57,831)
Ming Zhao	70,750 (130/57,831)	18,320 (77/57,831)
Ataur Rahman	74,737 (145/57,831)	47,984 (254/60,423)
Bijan Samali	131,294 (284/ 60,423)	50,735 (240/57,831)
Robert Osei-Kyei	133,707 (291/57,831)	61,337 (460/43,481)
Brian Falzon	152,497 (1,424/206,482)	75,289 (1,542/299,561)
Yang Xiang	154,032 ( 2,220/299,561)	77,046 (383/57,831)
Khoa Le	264,635 (733/43,481)	78,800 (846/206,482)
Jason Jiang	381,702 (1,112/ 57,831)	81,893 (415/57,831)
Sarah Zhang		116,347 (573/57,831)
Yingbin Feng		125,366 (951/43,481)
Kejun Dong		179,810 (1,537/79,314)

Reference: Ioannidis, John P.A. (2024), “August 2024 sciencewide author databases of standardized citation indicators”, Elsevier Data Repository, V7doi: 10.17632/btchxktyw.7

<https://elsevier.digitalcommonsdata.com/datasets/btchxktyw/7>



# Engagement News

## Speed Networking Event

The School's Women of Wisdom led by Professor Olivia Mirza and co-founded by Professor Samantha Liyanapathirana and Dr. Helen Wu, hosted the Speed Networking event on 11th September 2024. The networking event is designed to offer students, especially female students the opportunity to network with industry professionals thereby facilitating career development and mentorship. This event was particularly designed to allow students to gain an insight into requirements for successful entry into industry at internship and graduate level.



The event was attended by over 300 students and 54 industry partners from 19 different companies. Excellent feedback was received from both students and industry partners on the benefits of the event. The attendance had 35% female students and 65% male students. The event was also attended by students from all parts of the School as well as a small presence of students from the School of Computer, Data and Mathematical Sciences. Around 45% of the students who attended were from Engineering, 30% from Construction Management, 25% from Architecture, 4% from Industry Design and 1% from the School of Computer, Data and Mathematical Sciences.



The School would like to thank the following 19 industry partners for their contribution in making the event a success: Kellogg Brown & Root International Inc., GAMUDA, Arcadis, Trazibat Pty Ltd, Parklife Metro, PowerEng, PNP Group, WSP in Australia, Jacobs, Pitt & Sherry, OMRON Group, Mirvac, Bechtel Corporation, Mott MacDonald, Alchin Long Group, Lendlease, NSW Health, Australian Defence Force and Engineers Australia.

The School would also like to thank the following WoW members for their great contribution to the event: Tharika Kahandawa Arachchi, Aso Hajirasouli, Marini Samaratunga, Upeka Kuruppu, Linna Geng, Imandee Jayawardena, Iresha Gamage, Shashini Jayakodi, Saman Karimi, Muhammad Ali, Emilien le Gendre, Judicaël Benjeddour, Yeukai Deshe and Kuer Duot. A special mention to Sharidan Kearney for her dedication and support to make the event a success.

## Mount Druitt Family Science Fun Day

The School participated in a community event, the Mount Druitt Family Science Fun Day on 18 July. The day focused on Science, Technology, Engineering, and Math as well as Arts, that is STEAM education. The School would like to thank the organisers of the event, Blacktown City Council's Mount Druitt Ethnic Communities Agency (MECA). Some of the guest speakers for the event included Mr. Brad Bunting the Mayor of Blacktown City Council, Mr. Edmond Atalla the Member of Parliament and Mr. Ed Husic, Member of Parliament and Minister for Industry and Science. The event was attended by around 350 people, mostly families with primary school aged kids. The other Universities which also participated in the event were, the University of Sydney, University of Technology, Macquarie University and Australian Catholic University. The School will also like to thank



our PhD students, Tharika Kahandawa Arachchi, Saman Karimi and Muhammad Ali for supporting the event.



## Space Teams Academy

One of the highlights of the quarter was the Space Teams Academy program co-organised by the School of Engineering, Design and Built Environment and the School of Education. The event was hosted at Kingswood Campus between 19 to 23 August 2024. The event was run by One Giant Leap Australia, whose directors are Jackie Carpenter, Robert Carpenter, and Amanda Bourne. Professor Gregory Chamitoff, a NASA Astronaut for 15 years is the patron. 32 Year 7 and 8 students from 16 schools around Sydney, including a home-schooled student, participated in the event. The topics covered during the five day program ranged from planetary science, spacecraft systems, orbital mechanics to robotic exploration. The event was also enriched and given a Western University flavour

through Western University staff, Dr Luke Barnes, Dr Sasha Alexander, Dr Tim Strait Gardner and Dr Ain De Horta who also gave presentations to the students. Each group of students presented on their experience during the graduation. The students' presentation showed that the program had excellent student experience and impact. The School looks forward to hosting this program in future years! The School would like to thank Jenna McCarthy, James McCarthy, Belinda Ruiz, Sarah Chae, Jo Dunbar for their support in making this program a resounding success.

## Aspire Program – Pathway to Dreaming

The Aspire Program proudly participated in the Western Sydney University Pathway to Dreaming initiative, successfully engaging 200 Indigenous students in a series of STEM workshops. The program received excellent feedback from both students and teachers, underscoring its significant impact on promoting STEM education. We extend our heartfelt gratitude to our industry sponsor and collaborator, Fulton Hogan, along with Diana Tabbouche and Samantha Doherty, for their invaluable support throughout this initiative. I would also like to acknowledge the dedicated efforts of our team members—Tharika Arachchi, Muhammad Ali, Judicaël Ben Jeddour, and Emilien Legrand—whose contributions were instrumental in the event's success. A special thank you goes to Sharidan Kearney for her exceptional organization of the event, ensuring a seamless and enriching experience for all participants.



## Celebrating Diversity Fest at Western Sydney University

The Women of Wisdom (WoW) team is proud to have participated in Diversity Fest at Western Sydney University, a celebration that highlights and embraces the rich tapestry of cultures within the School. This event serves as a powerful reminder of the strength derived from our diverse backgrounds, experiences, and perspectives.

A heartfelt thank you goes out to everyone involved in making this event a success, particularly to those who donned traditional attire from around the world, symbolising the beauty of diversity. By coming together, we promote an inclusive environment where innovation and collaboration can prosper.



We would like to extend our gratitude to the following individuals for their contributions and participation:

- Sharidan Kearney – **Australian Indigenous**
- Olivia Mirza – **Malaysian Indigenous (Sarawakian Tribe)**
- Hadeel Alzghool – **Jordanian**
- Dayani Kahagala Hewage, Upeka Kuruppu, Sepani Senaratne and Tharika Kahandawa Arachchi – **Sri Lankan**
- Neelam Singh – **Indian**
- Kuer Duot – **South Sudanese**
- Yeukai Deshe – **Zimbabwean**
- Laura Almeida – **Portuguese**
- Qinjun (Lavender) Liu – **Chinese**

Together, we are creating a vibrant community that values diversity and fosters opportunities for growth and collaboration within the field of engineering and beyond.

## Inspiring People

### Empowering Connections: Women of Wisdom Networking

The Women of Wisdom (WoW) from the School of Engineering Design and Built Environment at Western Sydney University hosted an impactful icebreaker event, designed to foster networking among first-year female students. This gathering provided a valuable platform for students to connect with their peers, alumni, academics, and industry professionals, enhancing their engagement in the engineering community. Attendees were inspired by the insights of three distinguished female leaders: Stephanie Andrade from Erilyan, Sana Syed from Macquarie University, and Dana Tohme from WSP. Their experiences and perspectives served to motivate the next generation of female engineers, encouraging them to pursue their aspirations with confidence. The evening culminated in interactive networking sessions that left participants feeling energised and connected. Special thanks are extended to Sharidan Kearney for orchestrating such a well-planned event, which included a thoughtful acknowledgement of the traditional custodians of the land. This initiative not only nurtures professional relationships but also strengthens the support network for women in engineering at Western Sydney University.



### c4SMC Industry - Academic Roundtable

The annual c4SMC Industry - Academic Roundtable was held on 18th July 2024 at 1PSQ at Western Sydney University. The event brought together around 100 industry, academic, and research participants to discuss the theme, "Make Digitalisation Work for Construction". A major highlight was the keynote speech by David Chandler OAM, NSW Building Commissioner. The panel discussion of the event was highly engaging, featuring Gina Yazbek (Founder and CEO, Commnia), Dr Laura Florez-Perez (University College London), Meghann Sikorski (NSW Office of the Building Commissioner), and Angus Greenwood (Mainbrace Constructions Pty Ltd).

There were two main engagement activities that triggered fruitful industry-academic discussions in roundtable format. The event was sponsored by James Martin Institute for Public Policy and Commnia. More details of the centre events can be found at <https://www.westernsydney.edu.au/c4smc>

# International News



After an intense beginning of the Spring semester, the focus of the international portfolio over the past few weeks has been on student support and agent relationships. The school has hosted two Familiarisation tours for University's high performing agents in September, with another two planned in October.

Further, in the light of the new international caps, it has been decided that the University will not enter into any new articulation agreements at this time, nor any student exchange agreements.

## Staff Awards

### 2024 IEOM Distinguished Academic Leadership Award

Congratulations to Professor Olivia Mirza who received the 2024 IEOM 'Distinguished Academic Leadership Award.' As a passionate advocate for effective leadership in engineering, she holds the conviction that exemplary leaders foster the success of their mentees and create pathways for them to excel. Witnessing the growth and accomplishments of those she has mentored throughout the years has been an immensely rewarding experience. This recognition serves as a testament to the impact of hard work and commitment in nurturing the next generation of engineers, highlighting the importance of mentorship in shaping the future of our profession.



## Student Success



### Frasers Property Australia Scholarship Winner

Amanda Eessa is the recipient of the Master of Architecture (Urban Transformation) Scholarship from Frasers Property Australia for Women. The two-year \$60,000 scholarship is designed to encourage more women into an industry which has traditionally been male-dominated, as well as providing more opportunities to students of diverse backgrounds.

Amanda, who formed the Beyond Architecture Student Club at WSU and established student architecture magazine 'In Due Time', intends to use her degree to improve and beautify Western Sydney where she grew up and still lives, with a focus on public and community spaces.

"I want to create a legacy and I'm proud to share that with the world and to show that Western Sydney can provide all these excellent opportunities." Amanda said.

Amanda is the third recipient of the scholarship, with 2022 winner Maryann Aziz having recently graduated in June.



# Alumni Achievements

## Engineers Australia 2025 Thesis Award

Leonardo Dimeski, who graduated in 2024 from Bachelor of Engineering (Honours) (Civil) has won the 2024 Engineers Australia Thesis Award. Leonardo is a new addition at Nastasi & Associates Consulting Engineers. As a Graduate Structural Engineer, he dives headfirst into the practical side of the craft – inspecting, measuring, and learning from every beam and bolt. Day-to-day activities revolve around organisation: Coordinating with clients, undertaking site visits, and drafting reports and certificates for certifiers.



Leonardo prioritises continual improvement of his communication skills. He believes that engineering isn't just about calculations; it's about translating vision into reality. The practical learning has helped Leonardo better understand the processes of residential building. Leonardo aims to immerse himself fully in the realm of residential structural design.

## Expert Corner

### Exploring green roofs - reducing urban flood risk and enhancing sustainability (Professor Ataur Rahman)

A green roof can reduce urban flood risk, mitigate heat island effects, and enhance biodiversity. Prof Ataur Rahman and Dr Md Alim have been carrying out research on green roof at School of Engineering, Design and Built Environment. An experimental set up has been established at WSU Kingswood campus with the help of Sydney Water, Kanuf Insulation, Evolvment Pty Ltd, Sustainability Workshop, Green Roof Diagnostics and Blacktown City Council. The initial results show that green roof can reduce peak flow significantly resulting in reduced urban flooding. Research is continued on the use of artificial intelligence to simulate behaviour of a green roof.



### Advancing Water Quality and Sustainability Research (Professor Sathaa Sathasivan)



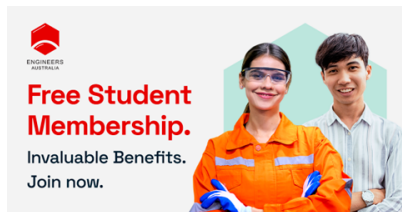
Professor Arumugam Sathasivan, an expert in Environmental Engineering, focuses on Sustainability and Water Quality Engineering, with over 30 years of experience across industries and academia. He led the design of the Civil and Environmental Engineering curriculum and spearheaded the Sustainable Engineering Program. His research aligns with the UN's Sustainable Development Goal "Clean Water and Sanitation" and "Climate Action" helping WSU achieve a top global ranking. His work on disinfectant management, particularly in chlorine and chloramine systems, has led to predictive models used by water utilities worldwide including Infoworks of Innovoyze (AutoCAD) and CaST of Western Sydney University. Professor Sathasivan is passionate about integrating his research into teaching, helping students understand real-world applications and fostering skills in problem-solving, teamwork, and innovation towards Circular Economy and NetZero.

### Research on Sustainability and Circular Economy (Dr. Dharma Hagare)

Dr. Dharma Hagare is a Senior Lecturer and researcher in the area of Sustainability Engineering at Western Sydney University. He is the leader of the Nutrient, Energy, Water and Materials Recycling Group (NEWMARG), which is focused on Circular Economy applications related to waste materials recycling. He has over 200 publications in international journals, conferences, book chapters and technical reports. He has received over \$3.4 million in research funding. Over the years, he has graduated 14 PhD and 6 MPhil students. His recent industry collaborators include Food Recycle, Global Renewables, Austral Bricks and other organisations. His pioneering work in food waste recycling has resulted in commercialisation opportunities for the industry partner.



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