



News from the School of Engineering, Design and Built Environment.

eNewsletter | December 2021 | Issue 7



Message from the Dean

2021 has been yet another challenging year, switching modes of delivery for our students and fairly disruptive for our research, engagement and our international students in particular. However, looking at what has been achieved this year, you would not have thought that, by any standards, this has been an exceptional year! We have done exceptionally well in research grant capture, graduated many HDR students, established holistic strategies for every portfolio area in the school and developed a robust, future orientated operational plan that will see us through the next 1-3 years.

Our new industry-inspired and co-developed programs will ensure our relevance and impact in the sectors we serve, our research will be impactful and our students are very well placed to enter the job market. Operating within the most exciting region in Australia, we have explored all opportunities available to us around the Aerotropolis developments, advanced manufacturing and construction and in other areas. Finally, we have now taken procession of our brand-new world-class Parramatta Engineering Innovation Hub at the heart of Western Sydney which will host Architecture, Industrial Design, Engineering and our collaborative program with UNSW.

I am immensely proud of the achievements of the school and grateful to all our colleagues across academic and professional services for their professionalism, resilience, collegiality, mutual support and respect in our work and congratulate them all for their successes. Onwards and Upwards for the School of Engineering, Design and Built Environment.

Professor Mike Kagioglou



THE BUZZ - Widevision

On the 29th of November 2021, the School of Engineering, Design and Built Environment launched Widevision 21. This one-week online exhibition showcased the work of our students in Industrial Design, Engineering, Architecture and Building Design Management. It was a creative and innovative way to showcase our students' work to fellow students, families, friends and industry partners.

Two guest speakers were invited to the launch - Prof. Mile Kagioglou, the School's Dean and Prof. Clare Pollock, the Western Sydney University Senior Deputy Vice Chancellor. There were 128 attendees at the launch.

The School would like to thank our sponsor, AB Projects. Congratulations to all the students and staff involved in displaying such an innovative approach to showcase the creativity and excellence of our students. Lastly, I would like to acknowledge the Engagement Team for their tremendous support. Congratulations to all the students and staff involved in displaying such an innovative approach to showcase the creativity and excellence of our students. Lastly, I would like to acknowledge the Engagement Team for their tremendous support.

For more information about Widevision and to see the virtual gallery click here.

Associate Professor Olivia Mirza Associate Dean - Engagement

WIDEVISION IMPACT AWARD WINNER

JAMES HILL



https://jamesrhill.design/

WIDEVISION IMPACT AWARD WINNER

ANDRE FALCONE



https://linktr.ee/afalcone12

INTERNATIONAL NEWS

The most exciting international news is the arrival of 17 Western Sydney students via the first safe corridor flight originated from Singapore. As part of our efforts to expand our international ties, the articulation agreement with Sri Lanka Institute of Information Technology (SLIIT) and General Sir John Kotelawala Defence University have now been signed. These agreements enable us to increase the share of international students in our Construction Management and Architecture programs.

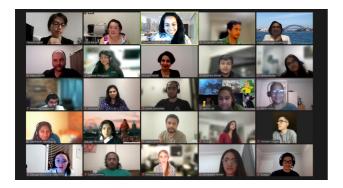
In another development, a considerable number of our colleagues were successful to secure funding to recruit international students to work on projects defined by the School. 15 international students have been consequently recruited to work on projects defined by Dr Kamrul Hassan, Dr Sameera Pathirana, Dr

Payam Zekavat, Prof Chin Leo, Dr Qinghua Zeng, Dr Dharma Hagare, Dr Matthew Steven and Dr Upul Gunawardana. In another activity, Dr Ee Loon Tan has showcased Engineering students Industrial experience to a broader audience via Insider Guides Webinar.

Finally, building on our relationship with Chitkara University, in October, Dr Payam Zekavat presented the opening note to the Innovative Technologies for Clean & Sustainable Development conference arranged by Chikara University. Follow up discussions for further School to School collaborations are being planned. For 2022-2023, Dr Payam Zekavat has been appointed as the Associate Dean International for the School and we would like to thank Professor Gu Fang for his contribution to the international portfolio in 2020-2021.

We hope you have a wonderful break.

WOMEN OF WISDOM SPEED NETWORKING



Women of Wisdom (WoW) organised the second Speed Networking event for 2021 on the 7th October 2021. Due to COVID-19 restrictions, this event was held online. 14 industry partners were invited. They included Turnbull Engineering, Mott McDonald, Downer Group, WSP, Lang O'Rourke, Multiplex, Cardno. EIC Activities and many more. There were 65 students who participated in the event. We received excellent feedback from students and industry partners. A student wrote, "My confidence level has changed after talking to various industry partners. They are not as scary as I thought" and an industry partner stated that they were amazed with the students' motivation and impressed with Western Sydney University producing such a talented pool of students.

This event fulfills the School's Engagement Strategy which aligns with key elements of the University's Sustaining Success 2021-2026 Strategic Plan Goal and Sustainable 4 Goals Development (SDGs) Goal 17 "Partnerships".

In order to expand the Aspire Program to STEM Cluster Schools, A/Prof. Olivia Mirza has joined forces with School of Science, School of Computer, Data and Mathematical Sciences and MARCS Institute for Senior Deputy Vice-Chancellor School Initiative Funds. The application was successful and was awarded \$222,010.00 for 2022.

LEARNING & TEACHING WRAP UP 2021



Spring semester is finally over; everyone is looking forward to the festive season and the break. We have achieved so much as a team this year, even during the continuing uncertainty and challenges imposed by various strains of the COVID-19 virus.

Architects Accreditation Council of Australia (ACAA) has just finished reviewing our School's Architecture program. Next in queue is the accreditation of Engineering programs by Engineers Australia (EA). The visit is scheduled for the second week of February 2022.

The accreditation team is putting the final touches to the submission documents. EA accreditation will be followed by the Australian Institute of Building (AIB) accreditation in April/May 2022. Accreditation work is begun for Royal Institute of Chartered Surveyors (RICS) accreditation of our Built Environment programs.

Other proud achievements of our School - we will be hosting two very prestigious education conferences in 2022; the Australasian Universities Building Education Association (AUBEA) and the Australasian Association for Engineering Education (AAEE) conferences. The conferences have been planned between the last week of November and the first week of December 2022. Stay tuned for the details.

Have an enjoyable and relaxing festive season.

RESEARCH NEWS

Research Excellence at the School of Engineering, Design and Built Environment

A judging panel including 6 disciplines from the School has assessed all high-quality applications. There are 13 awards with 14 prizes for HDR students and researchers. This aims for acknowledge the high-quality of research that the School is currently conducting.

Congratulations to all winners for the School Research Awards!

Researcher Awards

Khoa Le, Winner

Award for Top 2020 Journal Publication Prize

Robert Osei-Kyei, Winner

Award for Excellence on Academic Publication

Md Abdul Alim, Winner

Award for Early-Career Researcher of the Year

Kejun Dong, Winner

Award for Mid-Career Researcher of the Year

Sarah Zhang, Winner

Award for Researcher of the Year

Maria Rashidi, Winner

Award for Researcher of the Year through Industry Partnership

Khoa Le, Vivian Tam, Anthony Butera, Winner Award for Research Team of the Year through Interdisciplinary Disciplines

Sarah Zhang, Winner

Award for Researcher of the Year through National and International Collaborations

HDR Awards

Mingxue Ma, Winner **Award for Top 2020 Journal Publication Prize**

Soheil Jahandari, Winner Mohammad Alembagheri, Highly Recommended **Award for Excellence on HDR Publication**

Navodana Rodrigo, Winner **Award for Excellence on HDR Study**

Mingxue Ma, Winner

Award for Excellence on HDR Thesis

Professor Vivian WY Tam; Associate Professor Khoa N. Le, Dr Wengui Li (UTS), Winner **Award for Excellence on HDR Supervision**

STUDENT NEWS

Kesh Kiritharan | SMEC Graduate Engineer – Tunnels

Kesh was a student at Western Sydney University (WSU) from 2016 - 2020. He graduated with a Bachelor of Civil Engineering (Honours) in



December 2021 and received university Medal for his exceptional academic performance.

Kesh's decision to study at WSU was influenced by his twin and older brother. Kesh thoroughly enjoyed his time at WSU, finding the engineering course challenging, the staff excellent and the facilities modern.

During his final year of study Kesh completed his Honour's Thesis which focused on an alternative method for swelling control of residual Bringelly Shale. He appreciated working alongside senior academic staff to overcome various research challenges, particularly his supervisor Professor Samanthika Liyanapathirana.

Now a graduate engineer, Kesh is seeking to expand his technical skills in the tunnelling industry with SMEC. Since joining in January 2021, Kesh has been involved in the Snowy 2.0 project as part of the design review team tasked with reviewing submitted design packages for both compliance and technical solutions. He is also working on a range of tasks focused on the design development of the Inclined Pressure Shaft (IPS), including 2D FEM using RS2 to assess the anticipated ground loads acting on the segmental lining and more recently 3D FEM of the segmental lining using Strand7.

WESTERN SYDNEY UNIVERSITY



RISK-BASED CONTINGENCY **MANAGEMENT MASTERCLASS**



CONTINGENCY MANAGEMENT PROFESSIONAL (CMP) CERTIFICATE



REGISTER YOUR INTEREST

- endorsed by Western Sydney University, Engineers Australia and Risk Engineering Society
- Complimentary registration to
- Networking opportunities with industry practitioners
- discussions

Certificate of Completion, jointly

- Global recognition and 25 CPD hours from Engineers Australia
- attend the exam for CMP Certificate
- Facilitating peer learning and group





CSIRO JOURNAL AND PROPOSAL WRITING **WORKSHOPS**

The School of Engineering, Design and Built Environment hosted CSIRO journal and proposal writing workshops over five days in December. The Workshops were specifically designed for HDR students and junior academics to assist with writing and publishing.

The topics covered were Essentials of Writing a Journal Paper, Publishing with Impact and Writing Winning Scientific Proposals, CVs and Applications.

The workshops were a great success with many first year students staying on to learn more over the week long activity. We look forward to hosting CSIRO again next year.

WESTERN PHD STUDENT RECOGNISED AS THE BEST PHD STUDENT IN GLOBAL RESEARCH COMPETITION



Dr. Esmaeel Eftekharian was recently named winner of the Best CIB Doctoral Thesis Award. He completed his PhD in the School of Engineering, Design and Built Environment at Western Sydney University in 2021 with his thesis titled "Investigation of Buoyant Plume Wind Enhancement". His supervisors were Dr Yaping He and Professor Kenny Kwok.

Dr. Esmaeel Eftekharian is currently a senior postdoctoral research associate in the School of Mechanical and Manufacturing Engineering at the University of New South Wales, Sydney, Australia. Full details can be found here.

WOW RESEARCH POSTER COMPETITION



Vihanga Ilankoon 1st Prize



Agatha Kosinska 2nd Prize



Heimy Molina 3rd Prize

The research poster competition organized by the Women of Wisdom group during the research week of the university was a successful event. Three students were shortlisted based on the submitted posters and they gave 3 min presentations on 1st December.

The 1st Prize (\$300) went to Vihanga llankoon, who presented a novel concrete column design to delay the fire response. Vihanga completed her BEng degree in 2021 and looking forward to pursuing a career as a Structural engineer. The 2nd Prize (\$200) went to Agatha Kosinska, who developed a uniaxial compressive strength correlation using indirect methods for banded iron formation in Pilbara region. Agatha competed her BEng (Hons) and accepted a Geotechnical engineer position with Rio Tinto, Perth, WA. The 3rd Prize (\$100) went to our 3rd year Civil Engineering student, Heimy Molina, who presented about the Bubble Deck Technology. Currently she is an undergraduate engineer at the Trazlbat Pty Ltd.

AWARD RECIPIENTS

STAFF NEWS

WESTERN SYDNEY EXECUTIVE WOMAN IN STEM AWARD

A/Prof. Olivia Mirza won the 2021 Western Sydney Women Awards under Western Sydney Executive Woman in STEM Award which is sponsored by Western Sydney Airport. This award focuses on women who have paved their way and made significant impact in the areas of Science, Technology, Engineering or Mathematics. This award is dedicated to celebrating women in Western Sydney who are:

- Inspiring female role models;
- Women who have demonstrated excellence in their career and elsewhere;
- Women who have made significant contributions in their community;
- Women who have made a difference to Greater Western Sydney.



NEW STAFF IN THE SCHOOL OF ENGINEERING, DESIGN AND BUILT ENVIRONMENT



Professor Paul Sanders

I am excited to be the newly appointed Chair/ Professor of Architecture and lead the architecture course at WSU in



Doctor Jun Wang

Dr. Jun Wang joined WSU this September 2021. His research interests are mainly focused on leveraging emerging



Doctor Keivan Bamdad Masouleh

Keivan completed his Ph.D. in mechanical engineering at Queensland University of Technology (QUT) in 2018 and its unique urban focus. My career in academic and practice has been rooted in urban architecture, and my research and teaching has been based on how design can influence matters affecting cities. My current major research activity is as a CI on a 5-year NHMRC \$1.15M funded project called Grandschools: An Intergenerational Learning and Living Campus, which addresses the health and wellbeing of seniors and youth, and proposes new approaches to the urban design of educational precincts.

technologies, such as BIM, Digital Twin, and Blockchain, to improve construction performance across building and infrastructure industries. He has published over 50 journal articles, 7 book chapters, and 16 conference papers. His hindex is 28 and total citations are 34563. In 2017, he was recognised as the Top 10 BIM researcher worldwide. As Chief Investigators, he has been involved in Three ARC projects (i.e. 1 ARC LP, 1 ARC DP and 1 ARC LIEF), Two CRC-P grants, and One Innovation Connection

was awarded the Australian **Building Codes Board research** scholarship. Prior to joining WSU, he worked as a lecturer at QUT and Victoria Universities. Keivan is an associate Fellow of the Higher Education Academy (AFHEA) and is a member of the Australian Institute of Refrigeration, Air conditioning and Heating (AIRAH). Keivan's research interests and expertise are around building energy optimization, HVAC control systems, artificial intelligence (AI), zero-energy buildings, and climate change.

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