EDITORIAL

ACSME 2025 – Shaping the future with STEM education

This year as we gather on the lands of the Wurundjeri Woi Wurrung people in Narrm/ Melbourne we are looking to the future. We are in the middle of a critical decade of technological, environmental and social disruption. Consequently, the Australian Academy of Science is asking the nation to consider whether we have the science capability we need to rise to this challenge¹, and the Australian Council of Deans of Science (ACDS) argues that Australia doesn't just need more scientists, it needs more people who think like scientists².

So, at the Australian Conference on Science and Mathematics Education (ACSME) 2025, we are considering how our teaching can shape the future of our students and how an education in STEM can help our students shape the future. What are our responsibilities to our students, to society and the planet we all share? What are, or could be, the impacts of a tertiary STEM education? How can our learning and teaching practices respond to or drive change?

These proceedings showcase our community's innovative work in assessment, learning design, inclusive practice, Indigenising curricula, the application of technology, work integrated learning and the development of skills for the future (both ours and our students).

Our international and award-winning keynote speakers bring their expertise to shape our conversations. We are grateful to hear from Claire Meaders on her efforts to support student transition to university and changing teaching cultures, Tracey Kuit on her work to prepare students for their future in a globally connected and necessarily sustainable society, and Joe Sambono and Katrina Wruck on the importance of recognising the scientific expertise of, and creating a shared scientific future with First Nations Australians.

The ACSME exists today because communities of dedicated people chose to shape the future we are now in, so it is fitting that we will look back on the impact that the ACSME and foundational communities like SAMnet have had on the STEM tertiary education sector. At this 31st ACSME we also acknowledge that the ACDS are celebrating their 30th year. On behalf of the ACSME community, we thank the ACDS for their ongoing support of this annual conference and congratulate them on this milestone. May we continue to shape the future together!

ACSME 2025 has also been made possible by the hard work and dedication of the organising committee: Angela Ziebell, Caroline Taylor, Anna Phillips, Tom Hiscox and Chris Duffy, with support from Daniel Czech, Anna Lister, Brian Kearney, Tara Jalali and Jen Fox. Also, thank you to the editorial team at the International Journal of Innovation in Science and Mathematics Education, a big team of reviewers, our generous sponsors, and the many volunteers how have contributed.

I would also like to specifically acknowledge and thank Prof Susan Howitt – our outgoing Director of the ACDS Teaching and Learning Centre. Susan has led our national education community and supported our T&L leaders for the last 5 years. Her significant contributions include reviewing the influential Science Threshold Learning Outcomes, introducing the ACDS Teaching and Learning Fellowship, ensuring we were represented in key national discussions including the Australian Universities Accord and supporting the elevation of and engagement with Indigenous Science. On behalf of the organising committee and the ACSME community, thank you Susan for shaping our future and by extension the students we teach..

Assoc Prof Lisa Godinho - Conference Chair

REFERENCES

¹Australian Council of Deans of Science (media release, 12th Aug 2025) The importance of University Science Education.

²Australian Academy of Science. Australian Science, Australia's Future: Science 2035 (accessed 2/9/2025)

Proceedings of the Australian Conference on Science and Mathematics Education, The University of Melbourne, 30 September - 2 October 2025, page 1, ISSN 2653-0481.