MSSANZ NEWSLETTER NOVEMBER 2022



A history of MODSIM

The MODSIM congresses of MSSANZ – a short history

(from a talk given by Professor Tony Jakeman at MODSIM2021)

Birthplace and numbers

Our Society's birth was in 1974 at Lucas Heights when it was the Simulation Society of Australia whose stalwart was Peter Benyon at CSIRO. We regard it as our first biennial meeting. In those early years our attendees numbered in the few tens, but at that stage modelling was a much more novel endeavour. The Society has twice been renamed to reflect that simulation is only one purpose of modelling and later to embrace our New Zealand colleagues who now have run two biennial meetings, the first at the University of Waikato, Hamilton in 1979 and the second at the University of Canterbury, Christchurch in 2007.

This congress here in Sydney is our 24th Biennial meeting, which are almost always held in odd years and usually in December unless we go north, something we have done in Townsville and Cairns in July.

Our meeting in 1993 was in Perth and that was a milestone event with over 300 attendees, a substantial number being international, and it was also the start of an expanded set of proceedings of four volumes until of course we went digital and published proceedings on our website. Michael McAleer was the convenor but I will say a little more of him later.

At the past four meetings we have been reaching around 800 participants. Part of that success is due to our collaboration with ASOR and the DST Group DORS, which we much enjoy and appreciate. Another is our expanded agenda where modelling of interdisciplinary, societal issues to solve major real-world problems features heavily. Indeed in our program, you will see mention of papers with topics and perspectives for instance around governance and society engagement. But even our more disciplinary papers will include mention of modelling, for example, that is fit-for-purpose and that addresses uncertainty, reflecting the problem-oriented focus and rigour of MSSANZ. We tend to envelop all aspects of modelling.

Awards

Awards to honour our membership were instituted in 1995 for Biennial Medals and for Fellows. Medallists are researchers who have made sustained and influential contributions to modelling and simulation but who also have been members of the society. Fellows will have given valuable service but are also excellent researchers.

MSSANZ values our students as the next cohort of leaders in modelling. Student Awards have been given to encourage their development since 1997.

But in 2001 we introduced Early Career Research Excellence Awards for researchers up to seven years post PhD. An aim here is to recognise the diversity of our members.

In 2017 the President's Invited Lecture was instituted for mid-career researchers on the rise, thereby filling a remaining niche that warrants recognition.

Key people

Our Fellows are our recognised strong contributors to the service of the Society, organising congress sessions regularly, or being on the MSSANZ Executive etc.

Every biennial congress has been organised by members who volunteer their time and they will tell you how demanding it all can be, especially in the lead up to a congress. This is even though we have an excellent paid organiser in Karen Mobbs.

But I would like to mention three people above all.

Susan Cuddy has been working with us since the late 1980s. She has been a major support figure at the registration desk for most of our congresses and a long-term Secretary of the Society who keeps us on the straight and narrow. She has also led many of our Student award assessments.

And there are two others not here. Bob Anderssen, among other things, chaired our Awards Committee for several years and contributed to sustaining the Society by instigating the setup of our Sinking Fund to ensure sustainability of the Society through trying times. He would feel that the current pandemic is just one example of a testing event. Bob, by the way, is arguably Australia's highest honoured, living applied mathematician. Happy 83rd birthday next month to Bob.

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But especially I wish to acknowledge Michael McAleer who passed away this last July. He was instrumental in making MSSANZ a venue for international participants, particularly from Japan and China. He also worked closely with me in setting up our Award structures. Vale Michael! We miss you and your crucial contributions to MSSANZ being a healthy Society.

The future

Relationships have been developed with several international Journals and Societies and this will continue to strengthen and showcase Australian and New Zealand modelling science. We have had MATCOM (Mathematics and Computers in Simulation) journal special issues through our relationship with the International Association for Mathematics and Computers in Simulation (IMACS). And the high impact journal Environmental Modelling and Software is now underpinned by several MSSANZ members as journal Editors (being Sondoss Elsawah, Lucy Marshall and Holger Maier), and others as Editorial Board members.

MSSANZ is also one of several societies affiliated with the open access free-to-publish journal Socio-Environmental Systems Modelling (SESMO) and has close connections with the International Environmental Modelling and Software Society (iEMSs), many of whose members would normally come to a MODSIM.

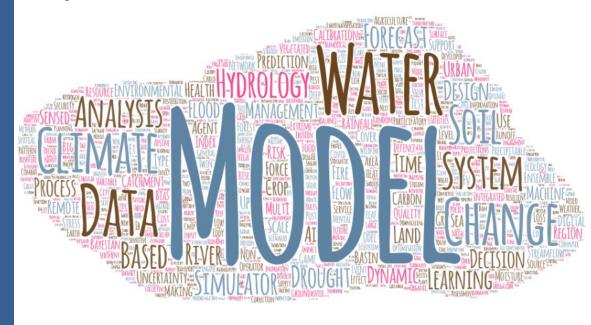
In 2021, the Society became a foundation member of the Open Modeling Foundation (OMF). OMF is an international open science community, with the vision of enabling open and ethical modelling efforts across all domains of human and Earth system sciences and engineering. The emphasis is on openness, transparency, and ethical practices that enable modelling scientists to share knowledge and build on one another's research. More information on OMF is available at https://openmodelingfoundation.github.io/

It is noteworthy that the journal SESMO now has in in place a compendium that entails special issues in *Fundamentals of modelling and good practice*.

What would I like to see more of?

More workshops on topics needing multiple perspectives, fundamental papers as outputs, and eventually national courses that deliver fundamental modelling skills for students in Australia and NZ curricula. But in general we can do well to continue to fulfil the MSSANZ aims to promote, develop and assist in the study of all areas of modelling and simulation, through our biennial congresses.

And on a social note, we will undoubtedly continue our very successful gala congress dinners where many friendships and collaborations have been formed. A society is only as strong as its member base.



Word cloud generated from titles of papers submitted to MODSIM2019 Credit: Purvesh Badmera, CSIRO