

MSSANZ NEWSLETTER

MODSIM 2013 CONGRESS

Adapting to change: the multiple roles of modelling

Adelaide Convention Centre, ADELAIDE, Australia

1-6 December 2013

Scientific Program Co-Chairs: Bob Anderssen, Julia Piantadosi

Co-Convenors: John Boland, Julia Piantadosi

CALL FOR SESSIONS AND ABSTRACTS

<http://www.mssanz.org.au/modsim2013/>

ABSTRACT SUBMISSION DEADLINE: 30 April 2013



INSIDE THIS ISSUE

MODSIM2013 REPORT

PRESIDENT'S REPORT

MODSIM2011 REPORT

2012 FELLOWS

2011 BIENNIAL MEDALLISTS

2011 ECRE AWARDS

2011 STUDENT AWARDS

TREASURER'S REPORT

MODSIM2013

KEY DATES

- Abstract Submission Closes 30 April 2013
- Deadline for full paper submission 8 July 2013
- Deadline for early bird registration fee 12 August 2013
- Deadline for lodgment of final paper 7 October 2013

Adapting to Change might well be the motto of the future for South Australia. Not only is the motto at the head of the movement towards greening the delivery of energy through renewables, but, as the downstream end of the Murray–Darling River System, South Australia has an intense interest in the changing modes of river operation. As such, Adelaide is certainly an appropriate venue for this particular version of the highly successful series of MODSIM congresses.

ASOR (the Australian Society for Operations Research) and DORS (the DSTO-led Defence Operations Research Symposium) will be joining us at MODSIM and running Streams in their topic areas.

Planning for the Congress is well underway with more than 100 sessions proposed.

The Congress Streams, to which session proposals and abstracts/papers can be submitted, are:

Applied and Computational Mathematics
Barry Croke, The Australian National University
Roger Braddock, Griffith University

Biological Systems
Malcolm McPhee, NSW Department of Primary Industries
David Mayer, Department of Employment, Economic Development and Innovation, QLD Government

Computer Science and Engineering
Rob Argent, Australian Bureau of Meteorology
Tim Peterson, University of Melbourne

Defence and Homeland Security Modelling
David Marlow, Defence Science and Technology Organisation
Denis Shine, Defence Science and Technology Organisation

Defence Operations Research
Fred Bowden, Defence Science and Technology Organisation

Economics and Finance
Michael McAleer, Erasmus University Rotterdam
Les Oxley, University of Waikato

Energy
Graham Nathan, The University of Adelaide
John Abraham, The University of Adelaide
Zhao Feng Tian, The University of Adelaide



Program Chairs' Report on MODSIM2013

MODSIM2013 Committee Members

Program Co-chairs

Dr Robert (Bob) Anderssen
Dr Julia Piantadosi

Congress Convenors

Prof John Boland
Dr Julia Piantadosi

Committee Members

Dr Jorge Aarao
Dr Robert Anderssen
Dr Fred Bowden
Associate Professor Felix Chan
Dr Belinda Chiera
Ms Susan Cuddy
Dr Paul Gaertner
Professor Tony Jakeman
Dr Malcolm McPhee
Dr Peter Pudney
Tony Weber
Peter Manger

- | | | | |
|--|---|---|---------------------|
| Environment and Ecology
Andre Zerger, Australian Bureau of Meteorology
Brett Bryan, CSIRO Ecosystem Sciences | Health Informatics
Irene Hudson, University of Newcastle | Integrated Infrastructure and Urban Modelling
Pascal Perez, University of Wollongong
Geoff Syme, Edith Cowan University | Operations Research |
|--|---|---|---------------------|

- | | | |
|--|---|--|
| Paul Gaertner, Defence Science and Technology Organisation | Participatory decision making and modelling social systems
Susan Cuddy, CSIRO Land and Water
Brian McIntosh, International Water Centre | Water Resources
Francis Chiew, CSIRO Land and Water
David Post, CSIRO Land and Water |
|--|---|--|

Program Chairs' Report on MODSIM2013

We would like to draw members' attention to some important information about the abstract/paper submission and review process.

Abstract/Paper Submission and review:
 The submission and review process will be handled exclusively using an online conference management tool accessible through the Congress website. We invite submission of high quality abstracts (max 250 words) on all aspects of modelling and simulation to a relevant session.
 Go to mssanz.org.au/rego to submit an abstract.

Official DEADLINE for ABSTRACTS is April 30

Once approved, authors are invited to submit an extended abstract (max 1 page) or a full paper (7 pages, including the separate one page extended abstract) formatted in accordance with the instructions to authors.

Extended Abstracts/Papers must be submitted by 8 July 2013.

The extended abstract should be a complete description of the problem area, broad findings and outcomes or implications and should hence be self-contained. The extended abstracts/papers will be reviewed by independent reviewers and may require revision before publication.

Final papers are due 7 October 2013.

Accepted extended abstracts and papers will be made available for downloading from the Congress website if and only if a contributing author gives an oral presentation at the Congress. Only papers will be published in the congress proceedings, although all abstracts will be published in a separate document that will also be downloadable from our website.

For MODSIM2013, we are trialling the concept of United-Sessions (U-sessions). Sessions can be labelled as United sessions if their individual presentations clearly articulate a policy or management issue and invoke an interdisciplinary approach or multiple disciplinary perspectives in addressing them; e.g. one or more of hydrology, ecology, economics, various social sciences, soil science, agricultural science, etc. In instituting U-sessions, the aim is to promote further the 'grand challenge' problem focus and the generic ideas and methods focus that are so critical to establishing image for MODSIM meetings. It is hoped that the innovation of such sessions will help participants share ideas and modelling approaches across sectoral interests, and perhaps lead to new collaborations.

An electronic copy of the MODSIM 2013 Congress Brochure is available at <http://www.mssanz.org.au/modsim2013/> on the home page. We encourage you to download this and distribute it widely amongst your colleagues and students. Alternatively, we can send you any number of hard copies.

Finally, we look forward to your participation in the Congress as delegates, presenters and/or session organisers. It will be an excellent opportunity to discuss the challenges, solutions and ideas in all areas of modelling and simulation, especially from an "Adapting to Change" perspective.

Julia Piantadosi
Bob Anderssen
John Boland

MODSIM2013 Contacts

Julia Piantadosi
John Boland

MODSIM2013@mssanz.org.au



President's Report

A hearty welcome from the MSSANZ Office and Management Committee to our new Society members, and best wishes to you all.

Preparations for MODSIM 2013 in Adelaide this December 1-6 are indeed progressing well. Our Organising Committee led by Convenors Julia Piantadosi and John Boland (at Uni SA) and our Program Committee, chaired by Bob Anderssen and Julia, have been meeting routinely by phone to ensure that this year's biennial meeting is another resounding success. For MODSIM 2013 I am delighted that we will be joined by the Australian Society for Operations Research Society and the Defence Operations Research Symposium. Their leaders have been closely involved in the meeting's development. An initiative of the program is the tagging of interdisciplinary sessions of major policy interest to sessions where warranted. This is to promote even further the attention of research reported at MODSIM to big societal issues.

In the newsletter you will also find profiles of our 2011/12 Award winners. The MSSANZ Management Committee is particularly pleased with the quality of our Early Career Researchers and students attending MODSIM meetings. We had close to 100 students participate at MODSIM2011 and hope to eclipse that number in Adelaide.

Our Web-based Conference Management Tool (OCS) is being tailored for MODSIM and I would like to thank Peter Manger for working on this. Welcome also to our new MSSANZ Office Manager, Clare Southerton, and to Karen Mobbs who has refurbished the MSSANZ website, produced our brochures and will oversee abstract submissions.

Several session organizers are starting to organize special journal issues for their session. While we will not have a Special Issue of the Society's main publishing organ, Environmental Modelling and Software, emanating from MODSIM2013, authors will be welcome to submit revised versions of their Congress Proceedings papers to the journal. If you do so, please indicate in the covering letter uploaded to <http://ees.elsevier.com/envsoft/> and in a footnote on the first page of the paper that "A preliminary version of this work was presented at MODSIM2013 in December 2013." And I will be happy to offer advice on the focus of any revisions to ensure it meets the aims and scope of EMS.

From a governance perspective, the (Victorian) Associations Incorporation Act, which is the Act under which the Society is constituted, was replaced with the Associations Incorporation Reform Act 2012 on 26 November 2012. This has ramifications for the way we govern the society. Significant changes will be brought to the 2013 Annual General Meeting which is being held in conjunction with MODSIM 2013.

Looking forward to meeting you in Adelaide.

Prof. Tony Jakeman

Director, Integrated Catchment Assessment and Management (iCAM) Centre, The Fenner School of Environment and Society, The Australian National University, Canberra, Australia
Program 5 Leader, National Centre for Groundwater Research and Training
Editor-in-Chief, Environmental Modelling and Software (Elsevier)



President's Report

Report on MODSIM2011/19th World IMACS Congress

Perth Convention and Exhibition Centre 12 - 16 December 2011



Report on MODSIM2011

MSSANZ aims to promote, develop and assist in the study of all areas of modelling and simulation.

The society's main activity is organising the MODSIM biennial conferences on modelling and simulation (the first in 1974). These conferences are highly regarded and well attended and attract strong student representation through the award of student prizes and subsidised registration.

On a typical sunny day in the beginning of summer, the Perth Convention and Exhibition Centre (PCEC) became the home of MODSIM2011. Over the course of the week, our minds made room for the knowledge from 587 paper presentations in 84 sessions spreading over 9 streams. Each day started with a plenary speaker, after which delegates broke into 12 parallel sessions. The 551 delegates from 35 countries shared their latest research through their presentations, capturing all aspects of the conference theme, "Sustaining our future: understanding and living with uncertainty".

After the encouraging words from the President of MSSANZ, Professor Tony Jakeman and the Deputy Vice-Chancellor of Curtin University, Professor Graeme Wright, the conference began on Monday with a "Welcome to Country" presented by Associate Professor Len Collard. At the end of an intense, but friendly, day of intellectual exchange, Monday finished with an icebreaker, providing delegates a more relaxing opportunity to expand their networks while appreciating the wonderful music played by the C4 Cello Quartet.

As agreed by previous convenors, the success of each MODSIM was mostly due to the dedicated session organisers, who played the multiple roles of promoter, organizer, referee and editor for their sessions. In recognizing their tireless efforts, a special dinner was arranged for them at the Melbourne Hotel on Tuesday evening. The efforts from the Organising and Program Committees must also be acknowledged. In particular, special thanks must go to Dora Marinova, the co-convenor of MODSIM2011, Peter Manger, our mastermind behind OCS and Wendy Merritt, our treasurer.

Like many other successful conferences, the social scene was as memorable as the content of the conference. A great deal of networking was done during coffee breaks, lunches or various discounted river cruises, which allowed delegates to explore the famous WA wine regions as well as many other amazing natural sceneries. The conference dinner was another memorable event of the conference. Its highlights included the pre-dinner drink at the upper level of the PCEC, overlooking the beautiful Swan River during sunset, the speech by guest speaker, Dr. Carol Couch and the amazing performance by local magician, Andrew Gill.

The staff at PCEC provided fantastic support in the day-to-day logistic of the conference. This included the flawless preparation for coffee breaks, lunches, the conference dinner as well as reminding delegates to attend their sessions on time! Mark Williams and his crew from Austage provided pivotal support on all audio and visual related services, as well as collecting and distributing all presentations to the appropriate breakout sessions. The professionalism demonstrated by the teams from PCEC and Austage is to be commended. Student volunteers from Curtin University Sustainability Policy (CUSP) Institute also provided valuable support, which was greatly appreciated. We would also like to thank, once again, David Post for coordinating the student prize. A list of these winners, other award recipients and further details of the overall conference can be found at <http://www.mssanz.org.au>. Last, but not least, the financial support from our sponsors was greatly appreciated.

Again, we thank all those who helped organize, and who attended, MODSIM2011. We look forward to meeting with you again in Adelaide for MODSIM2013.

Felix Chan
Chair, MODSIM2011 Organising Committee



Awards 2012 Fellows

Chia-Lin Chang **National Chung Hsing** **University**

Chia-Lin Chang is a Professor of Economics and Professor of Finance at National Chung Hsing University, Taiwan, has more than 40 journal publications, most of which are in Thompson Reuters ISI, a similar number of chapters in books and conference proceedings volumes, and two edited special issues of journals, namely

Mathematics and Computers in Simulation (MATCOM) and

the North American Journal of Economics and Finance (NAJEF). Moreover, she is on the editorial boards of 8 international journals.

Chia-Lin has contributed significantly to MSSANZ, having organised a session and presented a paper at MODSIM 2007, having organised a session and presented a paper at MODSIM 2009, and having organised a session and presented a keynote paper at MODSIM 2011. Chia-Lin will also be organising a session at MODSIM 2013 in Adelaide.



Tony Weber **BMT WBM**

Tony is an Associate at environmental and engineering consultants BMT WBM, with over 24 years experience in the water industry. As the National Practice Leader for Water Quality, Tony manages the water quality discipline across BMT WBM's Australian operations. Since joining BMT WBM, Tony has worked on a large range of catchment modelling, water sensitive urban

design, integrated water management, water quality and storm water management projects. Prior to this, Tony spent 13 years with Brisbane City Council in various roles related to water quality management, including water treatment, laboratory analysis, field monitoring and strategic water planning.

In his current role, Tony provides expert advice, beta testing and peer review of hydrologic and

catchment modelling activities across Australia and overseas and has constructed over 60 basin wide catchment models within Australia. He also assisted the former eWater Cooperative Research Centre with the application of water quality modelling tools such as WaterCAST, Source, MUSIC, and Urban Developer in the UK, Europe and South East Asia primarily through a Commercialisation Australia grant to implement the MUSIC storm water quality software in the UK. Tony has a degree in chemistry from QUT and is a Visiting Fellow at the Australian National University's Fenner School.



Tony has played and continues to play a very active role in the Society as a committed Committee member, and sits on the technical sub-committee and has assisted in managing our conference management system, firstly WCMT, and more recently OCS. He is also a strong advocate of the Society within the consulting industry and has a strong network that serves the Society well.



2012 Fellows

Chia-Lin Chang

Tony Weber



2012 Fellows

Anthony Dekker

Anthony Dekker
DSTO

Anthony Dekker obtained his PhD from the University of Tasmania in 1991. Following five years teaching computer science at universities in Brisbane and Singapore, he joined the Australian Defence Science and Technology Organisation (DSTO) in 1995, where his research has concentrated on operations research, graph theory, and agent-based modelling. This work has supported advice to the Department of Defence on a range of topics, including

headquarters organisational structure, human decision-making, and networked operations, as well as leading to over 60 conference and journal publications.

Anthony has been involved with MODSIM since 2003, initiating the Defence and Homeland Security Applications Session (now the Defence and Homeland Security Modelling Stream) in 2005, and facilitating DSTO involvement with the MSSANZ community. He has served on the Programme Committee of several conferences and is on the editorial board of the Society for Modeling & Simulation International Newsletter.

Since 2013, Anthony has been a consultant with IGOR Human Science Consultancy. He is also an Honorary Research Fellow at the Graduate School of Information Technology & Mathematical Sciences of the University of Ballarat, and has written a children's book entitled "Penguin."



Felix Chan

Felix Chan Curtin University

Felix Chan is an Associate Professor and the Head of Department of Econometrics and Quantitative Modelling at Curtin University. He has over 15 years experiences in mathematical and statistical modeling, especially in the areas of financial risk and uncertainty as well as economic modeling and forecasting. He was previously appointed as a statistical analyst at the WA Police Service and Australian Post-Doctoral Fellowship Industry. Felix had also served as an external consultant to the Commonwealth Grant Commission, WA Department of Treasury and Chamber of Commerce and Industry (WA). His main research interests include volatility modelling, applications of information theory in econometrics, time series analysis and panel data modelling and has published in prestigious international journals such as Journal of Econometrics, Econometrics Theory, Journal of Applied Econometrics, Econometric Reviews, Environmental Modelling and Software and Mathematics and Computers in Simulation.



Felix has been an active member of the society since 2001, when he was awarded Best Paper Student Presentation. Since then he has organised sessions at all MODSIM congresses, and convened MODSIM 2011 in Perth in December 2011. Felix continues to serve the Society as a member of the Committee and the technical sub-committee.

2011 Biennial Medallists

Professor Hector Malano



Hector Malano is currently the Professor of Water Resources Management in the Department of Infrastructure Engineering at the University of Melbourne. Hector

has 35 years experience in various aspects of water resources management teaching, research and consulting in river basin and water allocation modelling with special emphasis on hydro-economic modelling of water resource systems. His research has a strong interdisciplinary focus aimed to bridge water science with policy and decision making. He has led several important interdisciplinary projects in Australia including the Water Cycle program in the CRC for Irrigation Futures and internationally he has consulted with several international organisations including UNESCO, FAO and The World Bank. He has authored and co-authored over 200 journal and conference papers and research reports and he is the Editor of the Journal of Irrigation and Drainage published by Wiley Publishers.

Professor Michael McAleer

Michael McAleer holds a PhD in Economics from Queen's University, Canada. He is Professor of Quantitative Finance, Econometric Institute, Erasmus School of Economics, Erasmus University Rotterdam, The Netherlands, Distinguished Chair Professor, College of Management, National Chung Hsing University, Taiwan, Adjunct Professor in both the Department of Economics and Finance and the Department of Mathematics and Statistics at the University of Canterbury, New Zealand, and Adjunct Professor in the Faculty of Economics and Business, Complutense University of Madrid (founded 1293). He has been a distinguished

visiting professor at many prestigious universities, including University of Tokyo, Kyoto University and Osaka University, Japan, University of Padova (founded 1222), Italy, Ca' Foscari University of Venice, Italy, University of Zurich, Switzerland, Chinese University of Hong Kong, and Hong Kong University of Science and Technology. He is an elected Fellow of the Academy of the Social Sciences in Australia (FASSA), International Environmental Modelling and Software Society (FIMESS), Modelling and Simulation Society of Australia and New Zealand (FMSSANZ), Tinbergen Institute, The Netherlands, and the Journal of Econometrics. He is presently a member of the editorial boards of 20 international journals, and serves on several as Editor-in-Chief or Associate Editor-in-Chief.

Professor Bob Anderssen

Robert (Bob) Anderssen is a highly respected CSIRO mathematician. He specialises in mathematical modelling to solve challenging problems in image recovery and reconstruction, rheology and biology. He has worked on the mathematical modelling of a variety of real-world applications such as electromagnetic induction in the Earth, global seismology and seismic



tomography, vibrating piano strings, wheat-flour dough rheology and the analysis of NIR spectroscopic data. The current focus of his research activities include pattern formation in plants, the rheology of cereal grain hardness, antiviral resistance in plants and the genetics of geometry. He has been president of the Australian Mathematical Society and chair of the National Committee for Mathematics. He has been awarded the George Szekeres, Joe Moyal and the ANZIAM medals, given numerous invited presentations around the world and is a Fellow of the Australian Mathematics Society. In 2008, he received an honorary DSc from La Trobe University, and, in 2010, was awarded an Order of Australia Medal.



Biennial Medallists

**Professor Hector
Malano**

**Professor Michael
McAleer**

**Professor Bob
Anderssen**



2011 Early Career Research Excellence (ECRE) Awards

Dr Rebecca Lester
Dr Maroš Servátka
Associate Professor Hedwig van Delden



Dr Rebecca Lester

Rebecca Lester is currently a Lecturer in Freshwater Biology at Deakin University. Rebecca gained a PhD from Monash University in 2007, investigating stream restoration techniques on farms, before undertaking post-doctoral research at Flinders University and CSIRO Land and Water developing ecological response models and environmental water requirements for the Coorong and Lower Murray Lakes, and contributing to the Murray-Darling Basin Planning process. Her research interests include ecosystem ecology, particularly in aquatic ecosystems, ecological restoration and science-based natural resource management, with an emphasis on applied techniques suitable for use outside conservation reserves and large spatial scales. In particular, Rebecca is interested in the function and structure of ecosystems and in the development of management strategies that incorporate good ecological outcomes with human activities. Rebecca has authored 13 published papers, a book chapter and more than 20 research reports.

Dr Maroš Servátka

Dr. Maroš Servátka is a Senior Lecturer above the Bar in the Economics and Finance Department and the Founder and Director of the New Zealand Experimental Economics Laboratory at the University of Canterbury. He previously held a postdoctoral position at the Sonder Forschungs Bereich 504 at the University of Mannheim. In 2008 he received a prestigious scholarship and spent a semester as a Visiting Assistant Professor at the George J. Stigler Center for the Economy and the State at the University of Chicago Booth School of Business. Maroš is the Founder of Slovak



Economic Association, the first professional association gathering Slovak economists. He currently serves as the President of the Association and organizes biannual Bratislava Economic Meetings as well as prestigious Tatra Banka Nobel Lecture Series.

Maroš received his MA in quantitative methods from the Warsaw School of Economics and his PhD from the University of Arizona. Maroš specializes in experimental and behavioral economics and is interested in how fairness considerations and psychological factors, such as guilt, pride or reciprocity govern decisions of economic agents.

Associate Professor Hedwig van Delden

Hedwig van Delden is the director of the Research Institute for Knowledge Systems (RIKS) in Maastricht, the Netherlands and Adjunct Associate Professor at the University of Adelaide, Australia. Her main fields of research are land use modelling, model integration, bridging the science-policy gap and scenario development. Besides her research, she manages and provides scientific leadership to national and international projects of various sizes that focus on the design, development and use of integrated models for policy support. In this capacity she has led among others the European research project LUMOCAP and the development of the DeSurvey Integrated Assessment Model. Her work has been published in several books and journals and widely presented at conferences. She is currently acting as an expert evaluator for the European Green Capital Award, organised by the European Commission.



2011 Student Awards

Mika Peace

Mika Peace received her Student Award for her paper 'The Kangaroo Island bushfires of 2007, A meteorological case study and WRF-fire simulation' in the A2 'Modelling of bushfire and associated processes' session. She is completing a PhD in Fire Weather in the School of Mathematics at Adelaide University whilst on leave from the



Bureau of Meteorology. Mika has worked as an operational forecaster in Adelaide, Darwin, Perth and Melbourne as well as in aviation forecast training and management of commercial weather services. She has been involved in preparing forecasts in the lead up to a number of recent major fire events in southern Australia, which provided the motivation for her current research work.

Jelle Van Loon

Jelle Van Loon received his Student Award for his paper 'Developing and testing a model for open field horticultural crops to enable use of a 'just-in-time' fertilization management' in the B3 'Modern approaches in plant growth modelling session'. He is a Belgian Agricultural Engineer, specialized in Decision Support of Farming Systems. He is currently enrolled as a PhD Student at the Katholieke Universiteit of Leuven, department of Biosystems, where he is finalizing his investigation and doctoral research on "Model-based decision support systems for sustainable management of nitrogen fertilization, aiming at reduced environmental impact of intensive horticulture production".

However, with a background focusing more on tropical farming systems and poverty alleviation, as he did work in the Central Andes of Peru on improving the supply chains of small scale farmers, he returns this year to assisting in solving issues in developing countries. Joining the program

of Conservation Agriculture at the International Maize and Wheat Improvement Center (CIMMYT), he will contribute to the MasAgro initiative, which aims at a sustainable modernization of traditional farming systems and which is recognized by the G20 as a model for improving food security of developing countries within a changing climatic environment.

Jessica Dunn

Jessica Dunn received her Student Award for her paper 'A review of models used for understanding epileptic seizures' A3 in the 'Industrial modelling and simulations' session. She is a doctoral student in mathematical epidemiology and applied systems at RMIT University. Her PhD topic is Mathematical Epidemiology of Tick-borne Pathogens, a joint project with Yale University funded by the National Institutes of Health (NIH) Ecology and Evolution of Infectious Diseases (EEID) program in the USA. Jessica is active in the RMIT and wider academic community through research. She was a student moderator on two separate projects at the Mathematics in Industry Study Group working on problems with the Brain Research Institute (2010) and the Environmental Protection Agency Victoria (2011).



Jessica was a vacation scholar with the Australian Mathematical Sciences Institute (2008) and she is also involved in various teaching and learning projects at RMIT.

Rachel Blakers

Rachel Blakers received her Student Award for her paper 'The influence of model simplicity on uncertainty in the context of surface-groundwater modelling and integrated assessment' in the I9 'Managing uncertainty in the decision-making process: with an optional focus on water systems' session. She is a PhD student at the



Student Award Recipients

Mika Peace

Jessica Dunn

Jelle Van Loon

Rachel Blakers





Student Award Recipients

Palmar Thorsteinsson

David Savage

Nicholas Car

at the Australian National University and is jointly supported by the National Centre for Groundwater Research and Training. The topic of her thesis is "Hydrological Model Development and Uncertainty Analysis in the Context of Integrated Assessment". A focus of Rachel's PhD research is the role of models in environmental decision making, particularly when faced with high uncertainty in model predictions. She is also interested in using data mining techniques to improve the utilisation of field data in the model development process. Rachel completed a Bachelor of Science at the ANU in 2006, graduating with honours in Computational Modelling. Before returning to study in 2011, she was employed at Geoscience Australia as a numerical modeller.

Palmar Thorsteinsson

Palmar Thorsteinsson received his Student Award for his paper 'Tacit coordination and equilibrium selection in a merit-based grouping mechanism: A cross-cultural validation study' in the DI 'Behavioural economics' session. He is a postgraduate student of Economics at the University of Iceland. Palmar is interested in how endogenous grouping and meritocratic social organization attenuate social dilemma problems. He examines these questions from both game-theoretic and an experimental perspective. With a background in computer programming and consumer research and used to large data sets, Palmar is also interested in how experimental results hold up cross-culturally, in particular given the unique features of the small, geographically isolated society in which he lives and works. Palmar's work, some joint with Professor Anna Gunnthorsdottir, has been supported by the University of Iceland and by the Australian Research council. Currently, Palmar is examining the effects of group size, ability, and social composition on cooperation rates within organizations and societies.

Nicholas Car

Nicholas Car received his Student Award for his paper 'Towards standardising irrigation



DSS inputs data formats through adaptation of the WDTF/WaterML' in the II 'Innovations in water engineering: the role of data-based techniques' session. He is now a Project Leader at CSIRO Land & Water in Dutton Park, Brisbane. Nicholas started his science career with PhD studies jointly at CSIRO in Griffith, NSW and Melbourne University in 2006 funded by the CRC for Irrigation Futures where he worked on irrigation



decision support systems. One of his experiments led to a product that received the Irrigation Australia Limited's "Best new irrigation product" for 2010. After a couple of years working in the private sector building custom IT systems for weather data, he returned to CSIRO firstly as an informatics developer then as a project leader within the Environmental Information Systems team where he works on interoperable information systems, data standards, spatial information systems and IT tools for modelling.. In addition to informatics, he continues to have an active research interest in natural resource use decision support.

David Savage



David Savage received his Student Award for his paper 'Modelling the effects of release timing on the wind-assisted dispersal of passive propagules' in the E16 'Spatially explicit population modelling' session. He recently completed his PhD in the School of Plant Biology at The University of Western Australia. His research focused on techniques for modelling the wind-assisted dispersal of fungal pathogens, and the influence of seasonal and diurnal patterns of spore release on the distances travelled by wind-dispersed spores. Since completing his PhD he has continued working in the School of Plant Biology as a post-doctoral fellow, further investigating wind-assisted dispersal and developing spatially explicit models of invasive spread.

Tanha Mahjabeen

Tanha Mahjabeen received her Student Award for her paper 'Analyzing Bongaarts model and its applications in the context of Bangladesh' in the H2 'Decarbonising cities and regions' session. She is currently doing her PhD at Curtin University Sustainability Policy (CUSP) institute. Her thesis topic is "Social movement against corruption: Evaluating Transparency International's (TIB)



contribution". In her thesis she is trying to explore whether engaging the community members could be an effective way to reduce corruption. Before heading to Australia for her PhD, she worked in ASA- a leading micro finance organization of the world. Her task there was to find ways about how to let the mass know about the prospects of microcredit. Later on she worked in Transparency International Bangladesh where she worked on engaging the people to raise their voice against corruption and ensure good governance in the country. The case study of her PhD thesis is also based on this NGO. Both the organizations are in Bangladesh, Tanha's birth land.



Student Award Recipients

Tanha Mahjabeen

2013 Biennial Medallists and ECRE Awards

CALL FOR NOMINATIONS for Biennial Medallists and Early Career Research Excellence Awards - closing 1st September 2013

The Society has a long history of recognising the contributions that its members make to the science of modelling and simulation, and the Society, through its Biennial Medallists, Early Career Research Excellence awards, and its Fellows. This year (being an odd-year) nominations for Biennial Medallists and Early Career Research Excellence Awards are open.

Please take the time to read the criteria and email nominations (written nomination statement and a CV of the nominee) to the President (president@mssanz.org.au) by 1st September 2013. All nominations are assessed by the Awards Committee who make recommendations to the Management Committee for approval. Awards will be presented at MODSIM 2013.

BIENNIAL MEDALS

Biennial Medals recognise 'exceptional research contributions to modelling and simulation and for promoting the aims of the Society'. Any member of the Society may be nominated for a Biennial Medal. The proposer and seconder must be members of the Society and self-nomination is not permitted.

EARLY CAREER RESEARCH EXCELLENCE AWARDS

ECRE awards recognise 'early career research excellence in modelling and simulation'. An early career researcher should have graduated with a PhD degree or equivalent within seven years of being nominated for the award. As for Biennial Medals, any member of the Society may be nominated. The proposer and seconder must be members of the Society and self-nomination is not permitted.

For further details, contact the President (president@mssanz.org.au) or Secretary (secretary@mssanz.org.au)

2013 Biennial Medallists and ECRE Awards

MSSANZ Treasurer's Report

The major activity of MSSANZ during the 2011-12 financial year was the MODSIM2011 congress held in Perth in December 2011. MSSANZ remains in a strong financial position in 2012.

A modest profit was made in the 2011-12 financial year due to MODSIM 2011 registration payments and interest gained from our 'sinking fund' term deposit and business online saver account. Our largest expenditures in the 2011-12 financial year were expenses associated with the MODSIM 2011 congress, notably the venue hire and catering. The bulk of the expenses and income for MODSIM 2013 will occur in the 2012-13 financial year.

Treasurer's Report

The financial statements continue to be audited on an annual basis by Canberra based firm Les Ellis and associates. Financial statements are available on request.

Please contact me via email (wendy.merritt@anu.edu.au) or telephone (02 6125 7762) to obtain these statements or to discuss any aspect of the financial management of MSSANZ.

Wendy Merritt
Treasurer, MSSANZ



MEMBERS

The Society has more than 2,000 members from more than 50 countries, including Australia, Canada, China, France, Germany, Italy, Japan, New Zealand, the Netherlands, South Africa, Spain, Switzerland, Thailand, the United Kingdom and the United States. Members are from a wide range of professional disciplines including mathematics, hydrology, agricultural science, economics, engineering, atmospheric science, ecology, computer science and many others.

Management Committee of MSSANZ Inc.

President

Tony Jakeman
Integrated Catchment and Assessment Management
Centre Fenner School of Environment and Society
The Australian National University CANBERRA ACT
0200
Telephone: +61 (02) 6125 4742
Fax: +61 (02) 6125 8395
tony.jakeman@anu.edu.au

Vice-President

Michael McAleer
michael.mcaleer@gmail.com

Secretary and Public Officer

Susan Cuddy
susan.cuddy@csiro.au

Treasurer

Wendy Merritt
wendy.merritt@anu.edu.au

Newsletter Production

This newsletter has been produced by the MSSANZ Inc. Office at iCAM, The Australian National University. Clare Southerton has compiled the newsletter from material provided by Susan Cuddy, Tony Jakeman, Wendy Merritt and award winners. Where the Society did not have photos or biographies of award winners, these were sourced from the web.

MSSANZ Committee Members

Dr David Post
Dr Julia Piantadosi
Professor John Boland
Dr Andre Zerger
Dr Robert Argent
Associate Professor Felix Chan
Dr Bob Anderssen
Dr Jai Vaze
Mr Tony Weber

Awards Committee

Professor Tony Jakeman (Chair)
Professor Roger Braddock
Ms Blair Nancarrow
Dr Francis Chiew
Professor Dora Marinova
Professor Les Oxley