

ASOR News — May 2013

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ASOR Melbourne AGM

The 2013 Annual General Meeting of the ASOR Melbourne Chapter was held on 17 April.

The President's and Treasurer's Reports presented at the AGM will be posted on the ASOR website in the near future. In summary, the Melbourne chapter of ASOR is in good financial and membership health, thanks in a large part to the hosting of the IFORS 2011 conference.

The principal function of the AGM was to elect a new committee. Nominations were received for all positions on the committee, and we now have three new committee members: **David Marlow** from DSTO, **Melih Ozlen** from RMIT and **Cameron MacRae** from RMIT/CSIRO.

The committee for 2013-2014 is:

Chair:	Simon Dunstall
Vice Chair:	Patrick Tobin
Treasurer:	Paul Lochert
Secretary:	Kaye Marion
Members:	Henry Burley Andrej Ceglowski David Marlow Melih Ozlen Moshe Sniedovich Mohsen Jafari Songhori
Co-opted:	Gaurav Singh
Student Representative:	Cameron MacRae
Ex-Officio:	Baikunth Nath

Henry Burley and Mohsen Songhori vacated their office-bearer positions for this year (as Vice President and Student Representative respectively) and the new committee thanks them for their past contributions.

Optimisation in Industry workshop, 5-7 June 2013

Optimisation in Industry is a three-day workshop that brings together researchers, graduate students and industry practitioners with an interest in solving challenging industrial problems using analytics, mathematical modelling, and advanced optimisation and constraint programming methods.

This workshop is designed to help bridge the gap between researchers and end-users. It will provide an opportunity for researchers and practitioners working on real-world problems to meet and discuss the latest developments in their work, including modelling techniques, robustness of models, decomposition methods, algorithms and advanced numerical tools. We hope to provide a forum to exchange ideas and present successful research approaches.

ASOR Melbourne will be co-sponsoring this workshop, which is being hosted and organised by

RMIT and IBM Research. Visit the website at <http://optimisationinindustry.com/> for further information. Registration is \$150 for ASOR members (\$100 for students), and is available online.



Proof that OR people can join with industry to wear yellow safety gear. This is a bunch of OR researchers visiting a trucking facility in Valparaiso, Chile (photo by Sergio Maturana).

Recent Advances, 17 July 2013

Recent Advances is being held early this year, to clean the way for the ASOR National Conference in Adelaide in December. If you have not heard of Recent Advances before, it is a one-day single-track conference held each year by ASOR Melbourne, showcasing research by our local members as well as ASOR members from interstate. Speakers nominate themselves by submitting an abstract, and the day is seamlessly run by our current treasurer, Paul Lochert.

The date for this year's Recent Advances conference is **17 July 2013**, and as is now customary we will be joining Melbourne, Newcastle and possibly SA and other sites by Access Grid. A detailed announcement about Recent Advances will be sent by email during May.

Upcoming OR Seminars

ASOR Melbourne Series

Wednesday 15 May, 6pm, RMIT 8.9.66 and other sites by Access Grid. This May, ASOR Melbourne's seminar will be presented by **Olena Gavriliouk** and will have a particularly strong applications-of-OR flavour. Details of the seminar will be sent by email shortly.

Hosted by Optimisation and OR in Melbourne

Friday 3 May, 12pm. *Planning networks of infrastructure assets by optimising state transitions*, **Simon Dunstall** (CSIRO). Brown Theatre, Electrical Engineering Building 156, University of Melbourne. For more information see www.or.ms.unimelb.edu.au.

AMSI/SSAI/ASOR AGR National Seminars

There are two seminars in this series scheduled for May. They are broadcast on the Access Grid network:

Friday 17 May, 2pm WST (4pm AEST): *Analysing Random Events on a Network*, **Adrian Baddeley** (CSIRO and University of Western Australia)

Tuesday 28 May, 2.30pm: *Incremental Network Design*, **Martin Savelsbergh** (Univ. Newcastle)

For more information about these events, visit <http://www.amsi.org.au/index.php/research-a-higher-education-mainmenu/access-grid/national-seminar-series>.

Institution of Mechanical Engineers Seminar

The Institution of Mechanical Engineers is hosting a presentation on *Modelling of Electricity Grid Impacts from Charging of Electric Vehicles*, by **Dr. George Grozev** (CSIRO) on 16 May 2013 at 5.30pm (for 6pm to 7.30pm) at the Ian Wark Auditorium, Building 203, CSIRO Clayton.

For registration, which is free, visit <http://nearyou.imeche.org/near-you/oceania/Australia/victoria-panel>, or contact Roshan Dodanwela on dodanwela@yahoo.com or 03 9545 2781.



April Seminar Recap

Simon Dunstall and Asef Nazari

ASOR Melbourne Seminar, 17 April 2013

The April ASOR Melbourne Seminar was presented by **Dr. David Marlow** from DSTO, and was titled **Fleet management operations research in DSTO**. David explained how the analysis and optimisation of the defence forces' fleets of aircraft, ships, submarines and land vehicles is expected to play a significant role in enabling billions of dollars in cost savings from the defence budget over the next decade and beyond. The fleet management challenge covers the long life cycle of defence equipment, and needs to consider a range of factors including availability requirements, light and heavy maintenance needs, failure rates that are a function of age, and the fact that missions have spatial and temporal components that must be accounted for. Patrol vessels, for example, traverse Australian waters for surveillance purposes and need to be scheduled so that crew obtain leave, vessels can have supplies replenished in a timely fashion, and territory is patrolled with a specified thoroughness and frequency. Much of the work is ongoing and DSTO hopes to attract other researchers' attention towards the fleet management challenges in defence.

RMIT, 12 April 2013

Professor David Martell from University of Toronto, Canada presented on *Fire management in the boreal forest region of Canada: an operations research perspective*, at RMIT in the afternoon of April 12. Bushfires are a fascinating subject and clearly there is much that OR can contribute: unfortunately in Canada (and somewhat in Australia also), this often needs to be done using a lot of goodwill from agencies, but small amounts of direct research funding. Examples of OR applications described by David included decisions on which airstrips to base water-bombing aircraft; and a partitioning of the country into fire management areas in which fires might be left to run and then burn out naturally, or always attacked and suppressed, or something in-between. This was an entertaining and engaging presentation by a celebrated researcher in the field of OR and wildfires.

RMIT, 8 April 2013

There were three speakers in the free public lecture *The infrastructure for growing cities, the struggles to keep up with demand* organised by the RMIT university and ATSE (The Australian Academy of Technological Science and Engineering) and held on April 8. The speakers covered different aspects of planning for megacities and expressed common concerns and difficulties in this realm.

Mr. Steve Alchin, the Executive Director Planning, Infrastructure Australia, presented important obstacles for future planning of Melbourne, particularly, the financial aspect of projects and the gap between the governmental support and the expenditure. Also, he highlighted some uncertainties in long term planning and his interest on scenario based planning.

Dr. Surya Raj Acharya, Senior Research Fellow, Institute for Transport Policy Studies Tokyo, presented several examples of Asian megacities, and compared them with some western megacities such as New York and London.

Finally, **Dr. Guy Felio**, President, Infrastructure Strategies and Research Inc, Ottawa, gave an interesting talk from both an engineer and city councillor perspectives. He mentioned the similarities between small cities and big cities and demonstrated some local planning difficulties particularly from funding point of view.

ASOR Membership

ASOR membership forms were sent out late last year, and we kindly request that if you have not done so already, that you spend a few minutes completing your re-subscription for 2013. If you have lost your form, or have been struck by some other disaster of comparable severity, approach a member of the committee (by email or in person) and we'll help you sort out your membership.

ASOR Melbourne email List

We seem to be having some problems with the ASOR Melbourne mailing list. Some emails are not to be reaching their intended destinations, including emails carrying some of this year's newsletters (which have been sent every month, including January).

It is also possible that some members might not have been aware of this list, melbourne-list@asor.org.au, or will need to update their details in order to receive emails again.

This newsletter is sent electronically, which of course means it will not directly reach unconnected members! However, maybe you know a member (or a prospective member) who might not be on our list? If so, give them a tip and point them towards the web page at http://asor.org.au/mailman/listinfo/melbourne-list_asor.org.au, where people can maintain their information, unsubscribe and/or subscribe afresh.

Support for Visiting Researchers

Have you got an interstate or international visitor? ASOR Melbourne has committed funds to assist with the costs of visits, in exchange for visitors giving a seminar for the members. Contact your favourite committee member to discuss the opportunities.

Summary of OR workshops and conferences in Australia

Optimisation in Industry, on 5-7 June 2013, is a three-day workshop that brings together researchers, graduate students and industry practitioners with an interest in solving challenging industrial problems using analytics, mathematical modelling, and advanced optimisation and constraint programming methods. For more information visit <http://optimisationinindustry.com/>.

AMSI Workshop on Mathematics of Transportation Networks on 19-21 June 2013 brings together researchers and stakeholders from government and industry to discuss the application of mathematics to the design and operation of transportation networks. Visit <http://users.monash.edu.au/~mpetn/> for more information.

Recent Advances. ASOR Melbourne's annual mini-conference, to be held on 17 July 2013, in RMIT Room 8.9.66 and other sites by Access Grid. A call for abstracts will be sent out in May.

MODSIM 2013 / ASOR 2013. Adelaide Convention Centre, December 1-6, 2013. The

Theme of the conference is Adapting to Change: the multiple roles of modelling. MODSIM 2013 incorporates DORS and the 2013 ASOR National Conference. <http://mssanz.org.au/modsim2013>

The **4th Freight Logistics Optimisation Workshop (FLOW)**, on 9 December 2013, is a one-day course introducing optimisation to logistics practitioners in industry. Holiday Inn, Flinders Lane, City. FLOW is a joint initiative of CSIRO, ASOR and the Logistics Association of Australia.

Web Pages of Interest

We are affiliated with FASTS through AMSC. To keep abreast of FASTS activities, consult: www.usyd.edu.au/fasts

ASOR National: www.asor.org.au

ASOR Melbourne Chapter: <http://www.melbourne.asor.org.au/>

NZ OR Society <http://www.orsnz.org.nz/>

ORS (UK): <http://www.orsoc.org.uk/>

INFORMS (US): <http://www.informs.org/>

IFORS: <http://www.ifors.org>

Optimisation in Melbourne: <http://www.or.ms.unimelb.edu.au/>

For the latest international news, conference and jobs details see: <http://www.ifors.org/panorama/index.html>

tutOR: <http://www.tutor.ms.unimelb.edu.au>

Committee Membership for 2013-2014

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