

# ACI newsletter

National Committee on Automation, Control and Instrumentation

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## NCACI COMMITTEE MEMBER PROFILE

We are pleased to announce that Professor Iven Mareels of the University of Melbourne has joined the Committee from 2002.

Iven, welcome on board!

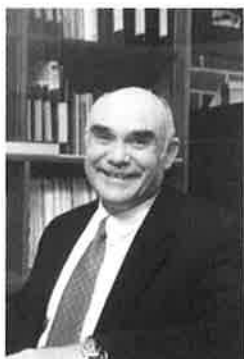
### Iven Mareels

Iven Mareels was born in Aalst, Belgium, on 11 August 1959. He obtained the Bachelor of Electromechanical Engineering from Gent University, Belgium in 1982 and a PhD in Systems Engineering from the Australian National University, Canberra, Australia, in 1987. He is presently Professor at the Department of Electrical and Electronic Engineering, University of Melbourne, where he holds the Chair of Electrical and Electronic Engineering, a position he took up in 1996. Previously he was a Reader at the Australian National University (1990–1996), and a Lecturer at the University of Newcastle (1988–1990) and the University of Gent (1986–1988). In 1994 he was a recipient of the Vice-Chancellor's Award for Excellence in Teaching. He is a co-editor in chief, together with Prof. A. Antoulas, for the international journal, *Systems & Control Letters*. He is a Fellow of the Academy of Technological Sciences and Engineering, Australia, a Fellow of the Institute of Electrical and Electronics Engineers (USA), a member of the Society for Industrial and Applied Mathematics, a Fellow of the Institution of Engineers Australia, Chair of the Asian Control Professors Association, Chairman of the Education Committee of the latter, and the Chair of the Steering Committee for the Asian Control Conference. He is a member of the Board of Governors of the Control Systems Society IEEE. He is registered with the Institution of Engineers Australia as a professional engineer. He has extensive experience in consulting for both industry and government. He has strong interests in education and, in particular, is experimenting with multi-media techniques in the undergraduate engineering curriculum. He has taught a broad range of subjects in both mechanical and electrical engineering curricula. His research interests are in adaptive and learning systems, nonlinear control and modelling. At present he has strong research interests in modelling and controlling of large-scale systems, and environmental systems in particular, with applications in natural resource management. He has co-authored 3 research monographs, about 100 journal papers and over 150 conference publications and received several awards for his publications.



## **GREETINGS TO PROFESSOR GRAHAM GOODWIN ....**

Greetings to Professor Graham Goodwin and thanks for his inspiring Plenary Talk at the IFAC 15<sup>th</sup> World Congress in Barcelona. He was one of the eight invited plenary speakers. Although it was held early in the morning of a lovely sunny day, his lecture titled "Inverse Problem with Constraints" attracted an audience that almost filled the venue (in excess of 1500).



Professor Graham Goodwin

## **..... PROFESSOR ROBERT EVANS**

It is with a great pride that we announce that Professor Robert Evans of the University of Melbourne has been elected to the IFAC Council for the 2002–2005 period. The Council consists of representatives from only 11 NMO member countries.

We would also like to advise you all that Associate Professor Ljubo Vlacic of Griffith University, the ACI Newsletter Editor, has been elected to chair the IFAC Technical Committee on Advances in Control Education for the period 2002–2005 ([www.gu.edu.au/centre/icsl/edcom/](http://www.gu.edu.au/centre/icsl/edcom/)).

## **OVERVIEW OF THE IFAC 15<sup>th</sup> WORLD CONGRESS**

### **Australian researchers have again shown that they are at the forefront of Control Science and Technology**

Australian researchers have again demonstrated that Australian R & D is at the forefront of Control Science and Technology. The acceptance rate of papers submitted by Australian researchers was 87.09% and this rate has proved to be most successful when compared with the Congress average acceptance rate of 69.94%. The Committee would like to extend its congratulations to all the authors of the accepted papers!

Those who were not able to attend, may be interested in some statistics from the Congress which are as follows:

Geographic Distribution of Accepted (Final) Papers:

Unites States	195	Europe	929
France	151	Asia Pacific	349
Spain	144	USA & Canada	246
United Kingdom	142	Latin America	129
Japan	114	Middle East	37
Germany	93	Africa	12
Italy	93		
China	74		
Brazil	58		
Austria	54		
Australia	54		
Canada	51		
Sweden	51		

Distribution of Accepted Papers by Technical Area (as clustered by the Program Committee):

Design Methods	519
Systems & Signals	342
Industrial Applications	294
Manufacturing and Instrumentation	219
Transportation and Vehicles	155
Systems Engineering and Management	75
Life Support Systems	65
Computer Control	53
Global and Educational Issues	33

The majority of papers submitted by Australian researchers fell into the categories of Design Methods and Systems & Signals.

It may be of interest to know that the areas with less than 10 accepted (final) papers were:

Business and Management Techniques	3
Enterprise Integration	6
Safety and Computer Control Systems	6
AI in Real Time Control	7
Human Machine Systems	8
Real Time Software Engineering	8
Intelligent Control in Agricultural Automation	9
Computation in Economics, Financial and Engineering-Economic Systems	9

The most recent initiative "*Paper-pre-discussion*", a part of the virtual track of the Congress, attracted 212 submissions. A selection of 100 papers was made available to the Congress's registered participants. These papers were made available on the Congress web site from 01 April to 10 July 2002. The web site included forms for making comments and reading these comments.

**MR PAUL MASON,  
THE 2001 ACI UNDERGRADUATE THESIS PRIZE WINNER**

The 2001 ACI Undergraduate Thesis Prize was awarded to Paul Mason, Department of Engineering and Technology, Deakin University for his thesis "*Feedback design for a servo-pneumatic system*" supervised by Dr Abbas Kouzani.

The winner was announced and the prize presented at the Electrical College Board's M. A. Sargent Medal Dinner of the Electrical College of the IEAust, held on 30 June 2002 at the Lobby Restaurant, Canberra. The NCACI Chairman, Dr Michael Evans, presented the Award.



Figure: Dr Michael Evans (left) presenting the Award to Mr Paul Mason (right).

The 2001 Certificate of Commendation was presented to:

- Mr Keith Bannister of the University of NSW for "*Multi-User Interactive Control of the Automated Patrol Telescope over the Internet*".
- Mr Benjamin Hor of the University of Sydney for "*Smart Enterprise Process Simulation & Data Reconciliation*" and
- Mr Timothy Bourke of University of Wollongong for "*Development of a Robotic Wheelchair*"

The IEAust Undergraduate Thesis Prize in Automation, Control and Instrumentation was inaugurated in 1995 to recognise individual excellence achieved in undergraduate project work across the breadth of A, C & I. The quality of work presented has been such that the prize has been awarded each year since then and, in addition, a total of 21 Certificates of Commendation have been awarded for the outstanding work of other applicants.

The monetary value of the prize has recently been increased to \$2,000. This is in addition to the award of a medal and certificate.

## **CALL FOR THE 2002 ACI UNDERGRADUATE THESIS PRIZE SUBMISSIONS**

Entries for the 2002 Undergraduate Thesis Prize will close in mid-December (as usual). Details, application forms, etc. may be obtained from Ms Martine Griffiths, the NCACI Committee Administrator, ph. 02 6270 6530; email: mgriffiths@ieaust.org.au

## **CALL FOR ACI PROJECT EXCELLENCE AWARD SUBMISSIONS**

The Project Excellence Awards recognise outstanding applications of ACI, and are designed to encourage the application of "best practice" of ACI techniques to achieve greater productivity, more efficient use of resources including energy, and reduced emission. This award program was established in 1996.

The Committee is now seeking submissions for the 2002 Project Excellence Award in ACI. Information and application material can be obtained from Ms Martine Griffiths, the NCACI Committee Administrator, ph. 02 6270 6530; email: mgriffiths@ieaust.org.au

## **EDITORS' POST-SCRIPT**

- **Discussion Forum:** Discussion letters to the editors in response to any article in the newsletter will have the responses published in subsequent editions.
- **Submissions of News** of interest to the Australian community of control engineers are most welcome.
- **A Special issue** of the newsletter may also be worthwhile. Please discuss your initiatives with the editors.
- **Your calls** are always welcome.

All contributions will be reviewed against the Mission Statement of the Committee when editing received material. The editors reserve the right to make changes.

### **The Editors:**

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Ms Martine Griffiths, ph: 026270 6530; [mgriffiths@ieaust.org.au](mailto:mgriffiths@ieaust.org.au)

## **CHRISTMAS GREETINGS**

The Editors and the National Committee on Automation, Control and Instrumentation would like to take this opportunity to wish all our readers a happy and safe Christmas. We look forward to seeing you in the next edition of the ACI Newsletter.