

## ***SACAC President's Report 2003***

### ***Introduction***

SACAC is an organisation serving the interests of automation and computation at a high level in South Africa. Its membership is corporate rather than individual and it provides links between suppliers, end-users and researchers in automation and computation. Increasingly the “computation” interest of SACAC has focused on control application because of the rapid development of the information technology sector and availability of cheap standardised hardware. SACAC serves its members by means of workshops and other activities, and keeps in regular contact with its members electronically and by mail.

SACAC is the South African national member organisation of the International Federation of Automatic Control (IFAC) and this provides a distinctive international role for SACAC.

### ***Highlights of 2003***

#### ***SACAC Workshop on Safety Automation: 28 January 2003***

This workshop was held at De Beers Auditorium (with thanks due to Dr Gunter Metzner for local arrangements) just before the last SACAC AGM. The engineering design of safety automation systems requires rigorous compliance with international standards and application of best practice. The workshop introduced functional safety design and application of IEC61508 to process systems; design and operational issues in railway signalling systems; machinery safety; mine winder systems; hazard studies, standards, legal framework and industrial practice in the petro-chemical industry; and design and application of intrinsically safe equipment.

#### ***SA Inst. Mining & Metallurgy / SACAC Colloquium on 18 March 2003***

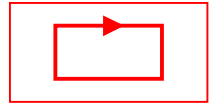
A well organised and well attended colloquium, “State of the Art of Automation and Control in the Minerals and Metals Processing Industries”, was held at Mintek, Randburg. This joint event is now a regular feature of the SACAC calendar and gives the automation and control community an opportunity to meet with the end users from the mineral and metallurgical industries.

#### ***Automation in a Nutshell (a.k.a. Automation for Dummies), 22 October 2003***

This workshop was organised by Dr Metzner and Mr van der Spuy and was held at Mintek, Randburg. It was a well attended, successful workshop, providing a good overview of the state of the art in automation. We are arranging a workshop with a similar theme during 2004.

#### ***Bid for 2011 IFAC World Congress***

In August 2003, I presented SACAC's initial bid to host the 2011 IFAC World Congress in Cape Town to the IFAC Council at their meeting in Rotterdam. Our bid was unsuccessful. The other countries bidding were Italy, the United Kingdom, and a consortium of Nordic countries (Finland, Sweden and Norway). The Council regarded the Italian bid as by far the strongest but also invited the United Kingdom to also prepare a full bid. The feedback we were given is that we should increase our profile within IFAC and try again (most countries bid a few times before being awarded a World Congress).



The SACAC Executive feels that we have the elements required for a successful bid and that SACAC should therefore make a bid for the 2014 World Congress. We have already had strong support from SA Tourism and from industry. There are clear benefits to the South African technical and academic community (and obvious tourism spin-off). We need to address the concerns of the IFAC Council, especially by encouraging active South African participation in IFAC Technical Committees and by hosting IFAC sponsored events.

### ***African Control Conference, 3-5 December 2003***

Given the tiny contribution that Africa has made to the development of automatic control, it was rather bold to undertake setting up a continental conference series but that's what was achieved in Cape Town in December 2003. The conference technical programme had around eighty regular papers, presented in parallel sessions, and five plenary papers, from Profs. Sigurd Skogestad (Norwegian University of Science and Technology), David Limebeer (Imperial College), Roger Benson (ABB), Guanrong Chen (City University of Hong Kong), and Pedro Albertos (Polytechnic University of Valencia). In addition to the technical programme, several social meetings were arranged.

The successes of the conference include the level of industrial participation and the way that the plenary speakers shared their experience with the audience in an interesting and informative way, on both technical and less technical levels. ABB and Optinum Solutions were financial sponsors.

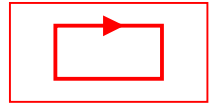
For the next conference in the series we would like to have a similar format of around eighty papers but because of the conference already being an established event, we would expect to be able to select papers from a larger number of submissions, improving the overall quality. We will strongly encourage industrial papers so that the conference is useful to industry-based delegates. We will also be more vigilant about no-show authors, for instance by only accepting papers into the final programme after receipt of registration fees. It is intended that the next African Control Conference will be held in South Africa before moving north! The next event should be an IFAC sponsored event.

The Sixth International Symposium on Quantitative Feedback Theory (QFT) and Robust Frequency Domain Methods was held in conjunction with the African Control Conference. The QFT sessions were scheduled as regular sessions with proceedings bound in a separate volume.

Credit for the excellent overall organisation of the African Control Conference goes to Prof. Jon Tapson who was the National Organising Committee Chair.

### ***Robot soccer 2003, 6 December 2003***

The Second SACAC Robot Soccer Championship was held at the MTN Science Centre, Century City, Cape Town. It was a three way 0-0 draw between the Universities of Cape Town, Natal and Pretoria. Given the recent Bafana-Bafana showing at the African Cup of Nations, this is a pleasing result, especially as there was significant progress in both hardware and algorithms between this and the 2002 competition. The 2004 event will be held at MTN Science Centre, Gateway, Durban in December and we are hoping to have a few more teams, both from universities and from industry. The game is great fun and is an excellent way of



promoting Science, Engineering and Technology (SET) awareness in the broad field of automation.

### ***Outlook***

Because of commercial pressures, internationalisation, and a change in how people view their commitment to their profession, the learned and technical societies in South Africa are having trouble retaining and growing their membership. Although SACAC does not have individual membership, it has similar difficulty in retaining and recruiting active member companies, as we require a champion within each member company to keep the interest in SACAC alive. As part of our contribution to the field of automation and computation, we do need to recruit more companies involved in the industry by offering them the networking opportunities and workshops. If we do not have a critical mass of members, we cannot properly represent the interests of the industry. SACAC needs to expand its international links through hosting IFAC sponsored conferences and involvement with the IFAC technical committees. I am confident that SACAC has the capacity to be successful in these endeavours.

### ***Thanks***

I have benefited professionally and personally from being a member of the SACAC Executive and from my two terms as President. During the year, I have enjoyed the support of the SACAC Executive and the SACAC Secretariat (Jean McKenzie and Mrs Aviges of JCCI). It needs to be recognised that the organisation of the each SACAC event requires considerable time from individual Executive Committee members as well as from the presenters. Finally, the SACAC members are thanked for their continued support of the organisation.

Prof. Edward Boje  
SACAC President