

The South African Institution of Civil Engineering

S A I C E



2004

Annual Report

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We have entered the second SAICE Century and who knows what the future will hold for our profession... . Maybe we will be providing infrastructure on other planets... Especially if we do not achieve our goals of sustainable engineering and sustainable life styles...



Message from SAICE 2004 President, Ron Watermeyer

A SAICE president has the privilege of meeting and interacting with many members, engineering, built environment and other professionals, academics, decision-makers, visiting dignitaries and politicians. I certainly had my share during 2004. I thoroughly enjoyed meeting our members at the various branches and interacting with participants at the Construction Procurement Workshops, which I conducted together with Malcolm Pautz in 15 centres. I also had the opportunities to rub shoulders with members of the international community on their visits to South Africa and on my travels to Atlanta, Baltimore, Jaipur, and Geneva. Let me share with you some insights that I gained during my period of office.

Civil engineering is not just about people's health and safety. It is also just as much about people's welfare. It is all about the application of science and technology in the control and use of forces and materials of nature in order to secure a better life for all. Civil engineering professionals need to take a leadership role in society and to locate their work beyond their discipline if projects are to deliver the best possible societal outcomes. They need to understand the relationship not only between their work and the environment but also with communities and the economy.

They are also by nature '*earth shapers*' and as such need to respond to global, national, regional and local issues. This requires strong international networks. Politicians and law-makers can capture the desires of the world's population. Engineers and other built environment professionals are, however, required to transform words into reality. Civil engineering professionals stand challenged to make the difference.

Whilst 2003 was all about celebrating SAICE's centenary and looking back on a century of civil engineering achievements, 2004 was all about securing a sustainable future for SAICE. Some of the highlights of 2004 in this regard were:

- The adoption of a revised constitution which transfers responsibility for managing and administering the affairs of the Institution to an Executive Board, disbands the Board for Technologists and Technicians since the professional Technician now also enjoys corporate membership and reduces the number of membership categories from eight to five.
- The purchasing of a permanent home for SAICE in the Thornhill Office Park complex in Midrand.
- The establishment of a Section 21 Company called SAICE Professional Development and Projects to build capacity, enhance understanding and decision-making and accelerate delivery in civil engineering.
- The deepening and strengthening of our relationships with our international sister organizations such as ASCE, ICE and the African Engineers Forum.

I would like to thank the Executive Board, the Council, the Executive Director and the National Office Staff for their support and dedication to the tasks at hand, without which, all of this would not have been possible.

Message from SAICE Executive Director, Dawie Botha

The year 2004 has been my fourteenth with SAICE. It was also the tenth year of the new SA democracy. Our environment is still changing at a pace that is difficult to cope with and rapid change is still the norm.

In the late 80s SAICE leaders already foresaw the fact that our Institution would have to adapt and indeed lead change, and we were prepared in a certain sense, but we are nevertheless still battling to cope. Our volunteers remain under



tremendous pressure and this is impacting on SAICE efficiency and capacity to deal with the daily challenges.

SAICE is currently enjoying the best recognition it has ever had and this was enhanced by the exposure we sought and achieved during the Centenary year of 2003. The challenge is to remain on that level. The activities that SAICE is involved in benefit our members enormously, but it is also clear that unless they stay close to the Institution in terms of participation in the structures, that they do not always appreciate the growth and successes achieved.

This brief report cannot give credit to a year as busy as 2004, but I will highlight a couple of events that for me personally made it another satisfactory and indeed outstanding year:

- Following on our successful participation at the 2002 World Summit event, and the invitation to attend the Tunis general assembly of the World Federation of Engineering Organizations (WFEO), I was elected a member of the new Capacity Building Committee of WFEO. I attended the first full scale meeting in Washington in June and my impression is that our Africa Engineers Forum and its new Protocol is *THE* model to follow. Our input is not only recognized but also highly appreciated by our Africa colleagues as well as our colleagues from the UK and the USA.
- Our Africa Engineers Forum meeting at Kariba resulted in an enhanced Protocol and Preamble and I am currently the secretariat for this alliance that we established in 1995. My dear friend Eng Sam Kundishora of Zimbabwe is the chairman.
- We were appointed by the CETA, (Construction SETA), to research and survey the skills environment in civil engineering. This enormous project is nearing completion and is led by Allyson Lawless. I am confident that it will become the premier tool for intervention in terms of capacity.
- We met with the Ministers of Transport and the Minister of Education during 2004. Subsequent follow-up meetings with their departments and close co-operation are a reality
- The so-called Centenary Coffee Table Book, that took almost two years to complete, was delivered in the last week of December 2004. My personal input was substantial and it is a privilege to be able to now use this publication for the purposes it was intended for: To be a companion and source of learning, guidance and information and orientation. The project was made possible by advertisers and sponsors and the publisher Chris van Rensburg. FOUNDATION FOR THE FUTURE is a worthwhile and wonderful product that represents a milestone without equal and has no competition.
- SAICE was appointed by the SA Department of Water Affairs and Forestry to continue with the Capacity building Programme in the field of Water and Sanitation and the Belgian Government has also now joined this exciting project.

Unfortunately limited space prevents me from mentioning more at this stage, but I can easily fill another book with what we have achieved and were involved in. I thank the SAICE Leadership for their continued support and I thank my staff for their dedication and team spirit.

And last but not least, I thank my non-SAICE family - my wife Ria, who has been at my side for 34 years now, and who should indeed be a SAICE Honorary member, as well as my children and now my grandchildren, for being my home foundation.



The Communication department once again had a MEGA year. There was good media coverage over radio, as well as in the specialist press. Radio topics ranged from concerns with safety issues in the industry to the civil engineer's input towards creating quality of life through the provision of, for example water and other infrastructure. The troika responsible for this department is Verelene de Koker, Zina Giraldo and Marie Ashpole. In terms of the new structure they report directly to the Executive Director since the post of Manager Communication has been abolished.

Members' luncheon

At the members' luncheon towards the end of January, Ron Watermeyer's inaugural presidential address 'The Sustainable Lifestyle: Our responsibility for the 21st Century' was well received and well reported on in the media.

Bridge Building competition

The competition finals were held at the Sci-Bono Discovery Centre in Newtown, Johannesburg at the end of August. Sixteen teams from across the country participated. There were also two teams from Zimbabwe. The winning teams were:

First: Hoër Tegniese Skool Drostyd from the Western Cape.

Second: St Johns College from Zimbabwe.

Third: Hoër Tegniese Skool Middelburg in Mpumalanga.

The competition attracted the participation of approximately 500 schools.

Rand Water-SAICE Centenary Schools Water Competition

This competition for high school learners was established when both Rand Water and the SAICE celebrated hundred years of existence in 2003 as part of their centenary celebrations. The final of the 2004 competition was held at the Sci-Bono Discovery Centre in Newtown, Johannesburg and was again kindly sponsored by Rand Water.

This competition exposes learners to the practical application of processes that influence their daily lives getting water to their homes. The competition creates awareness regarding the water issues facing South Africa.

Hoërskool Waterkloof in Pretoria was first, Esokwazi Senior Secondary School was second and the Ozisweni Literacy Centre in Secunda third.

For most of the learners and educators coming from across the country this was a total experience in the big City of Gold. They were for example treated to the Big Band Blast show at the Nelson Mandela Theatre (previously Civic).

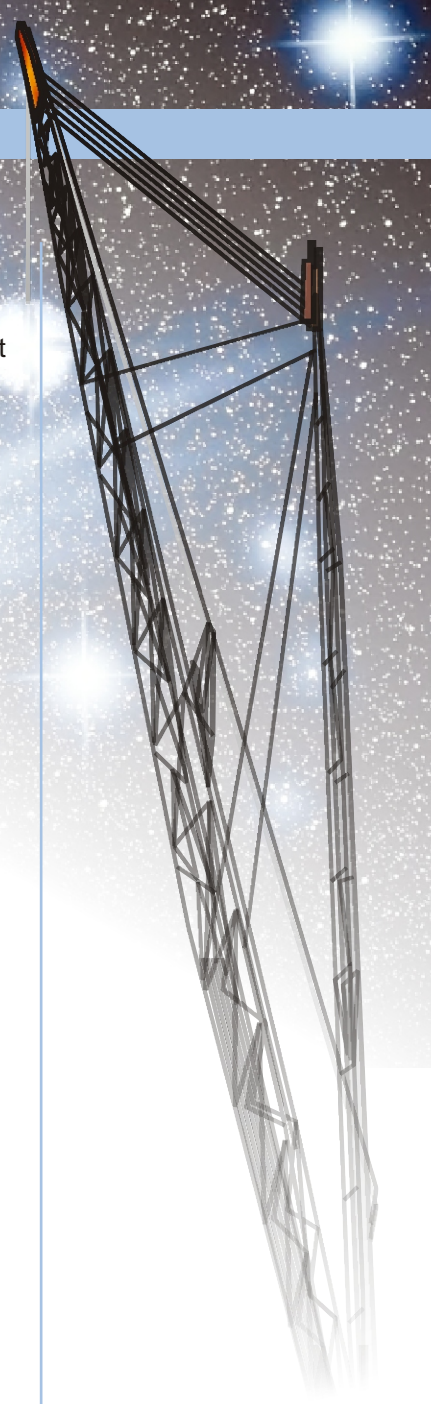
The competition equipment was also very successfully used in a team building exercise at the annual general meeting of the Association of Municipal Town Planning.

Awards

The Awards ceremony at the end of October, carried a new and fresh image. The formal sit-down dinner was replaced by a stand-up dinner during which colleagues could mingle and network. The overall response from our members was extremely positive.

SAICE Website

Between 6 000 and 9 000 hits are registered monthly, which means a daily average of about 155 hits. Data transfer averages 20 Mb per month. This website fulfils a crucial role. The restricted section is also used extensively by Branches and Divisions.



Magazine and Journal

Eleven attractive issues of the **magazine** appeared during 2004. The professional approach of our advertising agent, Barbara Spence, has greatly enhanced the sterling efforts of our editor, Sarie Moolman, who consistently produces a magazine of high standard. Co-operation from SAICE Branches and Divisions, regarding their features in the magazine, is steadily improving. The Editorial Panel is however encouraging even more dynamic participation in this regard.

The publication of technical papers on civil engineering is one of the core functions of SAICE, distinguishing it as a learned society. SAICE's archives, in fact, boast at least 1 385 papers published over the last century. It is heartening that the accreditation of our **technical journal** with the Department of Education was again confirmed. During 2004 four issues of the journal appeared, containing eleven peer-reviewed articles. The criteria for the *Best Paper Award* were revised during 2004 so that this award could be made again from 2005 onwards. In line with modern trends the electronic version of the journal is now also hosted on both the SAICE and Sabinet websites.

Calendar

The innovative Pillar of Strength SAICE calendar was printed and reached members in December. This calendar also contained a call for investment in the SAICE Building, a true blue future foundation project.

SPEBS

Since its inception in 1992 the SAICE Patrons' Engineering Bursary Scheme has granted 220 bursaries to 136 students during the various academic levels of their courses towards the National Diploma or the Degree in Civil Engineering. SPEBS bursars achieved excellent results, mainly due to the bursars' hard work, but certainly also due to the scheme's stringent academic performance requirements. SPEBS depends entirely on donations and sincere appreciation is herewith expressed to individuals, institutions, companies and SAICE units for their continued support.

Administration

Administration in SAICE changed with the loss of Joanne Laas to her husband's business. Joanne is however still assisting with HR functions. Memory Scheepers is now Manager Administration and her right hands remain Fridah Mhlangu at reception and Merriam Molefe who recently joined the ranks and joys of motherhood.

In the meantime re-organization was the order of the day and Elsabé Maree joined the team as Personal Assistant to the Executive Director.

The staff again rose to the ever-increasing challenges to maintain the levels of service to which our members are accustomed.



Education & Training

The SAICE Education and Training department built on their reputation for excellence and achieved yet another record year: Manager Carla de Jager is recognized as an accomplished conference organizer and a valuable SAICE asset.

- Lungelwa Lamani keeps the events database up to date, assists with arranging seminars and many other tasks.
- Angelene Aylward sold 8 413 publications with a total value of approximately R600 000.
- Dawn Hermanus arranged a total of 84 *Professional Reviews* for Candidate Engineers and assisted with many tasks including the appointment of mediators.

The department arranged many courses nationwide and a total of 1 679 delegates attended. The countrywide *Construction Procurement* seminars of Ron Watermeyer and Malcolm Pautz, which provided a major service to members of the built environment industry, were a sounding success. In the meantime SAICE was appointed to arrange several congresses including an international congress. This department contributed substantially to the positive financial results of 2004.

Dedication and service is the motto of this department and they are increasingly recognized as a major contributor to SAICE goals.

Finances

Debbie Griesel as manager and her staff Daleen Coetzer and Magda Bruyns ran a tight ship once more. 2004 was the year for installing Accpac for Windows and the team mastered the new system with ease. They also achieved top marks in private training in spite of the usual pressure. The department handles approximately 7 500 members' invoices, and about 450 debtors and 70 creditors on a monthly basis.

Membership

Memory Scheepers is now the sole staff member responsible for membership issues. Membership fluctuates around 7 000 according to the time of the year but the total number has been stable for a while. The composition of SAICE membership is however changing rapidly.

SAICE Branch Membership



SAICE Divisional Membership



The 21 branches, including 'Foreign members' with 399 members, have a total 6 359 members

All Branches and Divisions are obliged to submit annual reports but it is impossible to report on all of the 27 units. Snippets from four stars are therefore all we could manage in this report.

Many of the SAICE Branches are involved in projects, which enhance public awareness of civil engineering and the role it plays in providing quality of life to all our people. It is through the enthusiasm of our branches and divisions that SAICE can target future engineering professionals and encourage young people to consider civil engineering as a career.

The units remain a valued and essential asset but there are signs of severe stress for volunteers to keep up with the pace at which the world is developing and the environment is changing. It is therefore essential that the broad membership supports the Branch and Division activities and the leadership in general.

Environmental Engineering Division (EED)

EED entered a new phase in 2004. During the last two years the committee had been focussing largely on inputs to the new 'Minimum Requirements' as well as the Wits lecture series. It was considered necessary to review EED's role and purpose for the future. Caroline O'Reilly assisted with a survey of the members to obtain a perspective on their needs and vision for EED.

The results, which were published in the SAICE magazine, reflected a wide range of requirements rather than one specific role. In attempting to define EED's primary role, members gave almost equal weighting to issues such as a *forum acting across all divisions*, an *information supplier*, a *learned society* and an *educator*. The feedback is being developed to ascertain how best these requirements can be met and then implemented in 2005.

The main challenge for EED is the limited time resources of the committee, compounded by a lack of willing new members wanting to join the committee. Conversely, EED is financially on a sound footing and this allows EED to source professionals to address the workload. EED is planning to integrate The Bob Laburn Award with those made by SAICE in an effort to raise the profile of the award.

In a nutshell, the aim is a more streamlined and professional functioning of the EED. Aspects not receiving enthusiastic response will be out, and the issues interesting to both the committee and significant numbers of members will be brought in.

EED bid farewell to Dr Andy Fourie, past chairman and long-term committee member who headed for Western Australia.

Railway and Harbour Division

This active division once more had a successful year. It started off with the annual cocktail function held in February, which was attended by the President and Executive Director of SAICE.

The annual symposium did not take place in 2004, since it was decided that large events should probably take place every 18 months to two years.

The annual John Brown Dinner was held at Ceasars in November. The venue proved to be popular and the guest speaker, Gavin Sharples with his light-hearted and entertaining approach, was enjoyed by all present. The annual Transnet Award was also presented by Mr. Graham Pavard, Chief Engineer (Technology Management) to the recipient, Dr Hannes Gräbe, Senior Engineer (Structural Dynamics) Track Technology from Spoornet for his paper 'Permanent Deformation of Railway Foundations under Heavy Axle Loading'.

For Continuous Professional Development the number of lectures was reduced



with the result that there was an increase in the quality and attendance.

The committee is improving the division website with a view to making railway engineering information more readily available to members and the industry.

Substantial progress has been made in indexing historical papers and articles to be placed on the website for access by interested persons.

The division ended the financial year with a surplus mainly resulting from the proceeds of the symposium. They expressed their appreciation to the Executive Director and his staff who have been very supportive in ensuring the smooth functioning of Institutional activities, especially during the centennial year festivities.

Upington-tak

Die Upington-tak het weer 'n bedrywige jaar beleef. Die funksies en ander aktiwiteite is goed bygewoon en ondersteun.

Hannes de Kock en sy span is die afgelope jaar finansiële ook goed ondersteun deur plaaslike instansies. Sonder dié ondersteuning sou sekere geleenthede nie moontlik gewees het nie.

SAISI President, Ron Watermeyer en die Uitvoerende Direkteur, het die tak in Maart besoek, waartydens hulle onder andere die moderne KVV Versappingsaanleg tydens parstyd besoek het.

Upington-tak het aan beide die SAISI-skolekompetisies deelgeneem. Die streek-brugboukompetisie vir hoërskole het altesaam 17 spanne uit ses skole getrek. Hoërskool Duineveld, Upington, het gewen en is Johannesburg toe vir die finaal.

Die Upington Rand Water-SAISI Eeufees Skole-waterkompetisie het veertien spanne uit ses skole getrek waar Hoërskool Upington gewen het en die streek in Johannesburg verteenwoordig het.

Durban Branch

This wide-awake branch is active in outreach projects, continuing education and liaison with sister organizations.

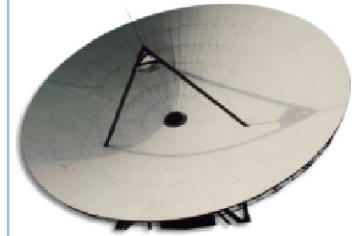
The branch ran a tight ship on the finances side. They organized the golf day, secured sponsors for the branch meetings and arranged the Bridge Building and Concrete Egg Protection Device competitions. They also arranged the continuing education courses as well as the publication and distribution of the 'Outlook' magazine. In addition they provided institutional guidance to the schools, universities and technikons.

The National Ports Authority provided a venue for branch meetings and the use of *N Shed* for the schools Bridge Building competition. The Durban Institute of Technology continued to provide gratis venues for continuing education and also sponsored the printing and postage costs of the newsletter.

This small committee had a particularly successful year. Eight branch meetings offered topics such as Ushaka Marine World and the Durban Point development, the Ethekwini Budget and Major Projects Planned. The beer tasting and social early in the year provided light relief. A visit to the Sibaya Casino was attended by close on 50 people.

Two special meetings were held in conjunction with SAACE and C & CI. The branch also liaise closely with SAACE, IMESA, Asphalt Society and SAFCEC by making networking and other opportunities available to members.

Continuing education remains topical. Topics included *An Introduction to the*



EPWP and The New Procurement Policies. In addition guidelines from National Office on CPD requirements were published in *Outlook* for the benefit of members.

The Branch committee also endeavoured to attract school kids to the profession and to make university and technikon students more aware of the state of the industry. Thecela Mneney spoke to many learners, as well as the students at Mangusutho Technikon, DIT and the University of KwaZulu-Natal.

The annual Bridge Building competition was once again sponsored by the National Ports Authority and was held as part of the Science and Technology week. Over 200 schools participated, with George Campbell School of Technology being the eventual winners who subsequently took part in the finals in Johannesburg.

The Concrete Egg Protection Device competition for technikons and universities was held in conjunction with the Cement and Concrete Institute. Ten teams participated and the Mangusutho Technikon emerged as winner.

Financial Report

For the first time in a number of years SAICE's income substantially exceeded its expenditure. The income for 2004 was R9,93 million (R6,84 million in 2003), while the expenditure was R9,55 million (R6,88 in 2003), resulting in an excess of about R380 000.

Income from membership fees was R4 million, slightly up from the R3,9 million in 2003. This was achieved even after allowing the discount for "early bird" payments, where members who paid early benefited a total of R750 000.

Income from other sources increased from R2,9 million to R5,9 million. This was mainly due to income derived from selling copies of the new General Conditions of Contract, and also the courses that were presented.

General expenditure was kept well under control, and the increase in expenditure is mostly associated with the cost of preparing and printing the General Conditions of Contract, as well as organizing and presenting the courses.

With the good results for 2004, the accumulated deficit from the past has now finally been changed to an accumulated profit. This is a heartening sign, and comes at a very good time as there are some expenses associated with the new building that were not foreseen when the budget for 2005 was prepared.

One area where SAICE can increase its income substantially over the years to come, is in managing the Continued Professional Development (CPD) programme for its members. The planning process for this has started, and the implementation of a system during 2006 is envisaged.

It is the intention to increase the administration grants to Branches and Divisions substantially in 2006. The grant will consist of a basic grant, irrespective of membership, and an additional grant based on membership and *ex gratia* grants for special projects.

SAICE is still able to fund the activities that support the Strategic Plan, and to remain a highly professional organisation that serves the interests of its members. This is achieved not only through the contribution of all the volunteers that serve on the various committees, but also the efforts of the dedicated staff at the SAICE National Office.

Dr Martin van Veelen

Chairperson: Finance and Administration Committee

SAICE'S MISSION

To advance professional knowledge and improve the practice of civil engineering

In support of SAICE's mission, SAICE strives:

- ★ to be a learned society for all those associated with Civil Engineering;
- ★ to enable our members, through consultation and accountability, to provide the community with environmentally and economically sustainable infrastructure;
- ★ to cater for the interests and needs of our members by creating an effective communication channel in a strong, dynamic and stable organisation;
- ★ to provide our members with continuing education in technical, managerial and communication skills;
- ★ to advance and uphold the professional ethics of the civil engineering profession;
- ★ to enhance the recognition of civil engineering as a highly respected profession and a desirable career; and
- ★ above all, to encourage our members to strive for excellence in civil engineering.



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