

ANNUAL REPORT

APRIL 2010 – MARCH 2011

SAICE Professional Development & Projects

(Association Incorporated under Section 21)

Trading as

Civils Masakheni




saice



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EXECUTIVE SUMMARY

SAICE Professional Development and Projects (SAICE-PDP) was established by SAICE in 2004 to implement SAICE Outreach and Capacity Building initiatives and activities that require external funding. Projects implemented by SAICE-PDP focus on developing civil engineering capacity outside the needs of SAICE membership, in South Africa and further afield. SAICE-PDP also supports service delivery and creates civil society awareness through education, training and orientation projects relating to developing and maintaining infrastructure.

Activities and projects

Although project budgets for the 2010/2011 financial year were reduced due to the economic climate, SAICE-PDP was encouraged by its various funders to 'do more with less'. This was indeed the case as the company continued to support all municipalities in Gauteng as part of the Gauteng Local Government Support Programme funded by the DBSA, and project managed the DBSA Young Professionals Training Programme.

A highlight of the year was finally rolling out the Candidate Academy. In response to the poor registration rate of civil engineering graduates, it was realised that few graduates or companies understand the registration process and few graduates are being given adequate workplace training, supervision and coaching. Courses aimed at graduates, mentors, supervisors and companies on the registration process were attended by some 600 delegates during the year and a further 400+ attended technical courses covering contract administration, pavement design and rehabilitation, pipe network design and transport planning. Many in-house courses were commissioned, indicating the commitment of companies to develop their young graduates.

SAICE-PDP was awarded the contract to manage the local government 2011/12 Engineering BTech Bursary Scheme funded by the Local Government Sector Education Training Authority (LGSETA).

Apart from company projects, SAICE-PDP was involved in offering advisory services, wherever possible, to assist a range of organisations with skills development, education and training. To this end we attended meetings, delivered lectures and presentations, offered advice, developed position papers, participated in and in some instances chaired workshops for – among others – the following institutions:

- Department of Cooperative Governance
- Department of Transport
- Department of Higher Education and Training
- Department of Basic Education
- Department of Science and Technology
- Gauteng Department of Finance

- Department of Roads and Transport, Gauteng Province
- Department of Roads and Public Works, Western Cape
- Consulting Engineers South Africa - Human Resources Forum
- Construction Education and Training Authority
- Human Resources Development Council of South Africa

Prospects

Sadly, we enter the 2011/12 financial year with uncertainty as it has been decided to transfer elements of the Siyenza Manje Programme associated with metros to National Treasury and the balance to the Department of Cooperative Governance. Until such time as new programmes have been designed under their auspices, there will not be any demand for SAICE-PDP senior engineers, or the services of the company in terms of support or capacity building in local government. On the positive side, several provinces have contacted the company for support with professionalisation, in response to the occupation specific dispensation offered by the Department of Public Service and Administration for engineering and other professional staff.

In memoriam

During the 2010/11 financial year we lost two senior engineers. Koos Loots who came out of retirement after five years at home, and served in Sedibeng from 2006, passed away suddenly in November 2010 and Pieter de Waal who joined us to mentor students in Tshwane in March 2008 passed away in October 2010 after a short struggle with cancer. Both will be missed for their enthusiasm and commitment to training young people.

A word of appreciation

I would like to express my thanks to the SAICE Professional Development and Projects board members, SAICE personnel, SAICE-PDP engineers, graduates, interns, students, colleagues and staff of SAICE-PDP for their enthusiasm and continued support. And finally, a big thank you to all our funders for entrusting their skills development initiatives to the company.



Allyson Lawless
Managing Director

HIGHLIGHTS AND ACHIEVEMENTS

The Development Bank of Southern Africa's Gauteng Local Government Support Project

This project forms part of the DBSA's Siyenza Manje programme and is aimed at offering support to municipalities in Gauteng. The project is managed and directed by the DBSA, the Gauteng Department of Local Government and Housing (GDLG&H), and the Gauteng Department of Finance. As at 31 March 2011 there were 33 senior engineers based in 12 of the 14 Gauteng municipalities, as well as 3 specialists, 13 graduates, and 25 students. Since the budget for 2010/11 was substantially cut by comparison with the 2009/10 year, it was necessary to approach Gauteng municipalities to co-fund the support offered. The metros offered to co-fund on a 50/50 basis, whilst local and district municipalities offered anywhere between R15 000 a month, to 30% of the deployment bill.

Sadly, although the teams have achieved amazing results over the five years since the inception of Gauteng support, SAICE-PDP was given notice that the project would be terminated on the 31 March 2011. It was thus necessary to seek alternative funding to be able to continue offering support. As an interim measure the Department of Cooperative Governance (DCoG) agreed to continue to fund the metros to 30 June 2011 and local and district municipalities to the 30 September 2011. Many SAICE-PDP engineers are due to leave the project in May and June 2011.

Although bureaucracy, staff shortages, budgets and other bottlenecks tended to inhibit the deployees, the project nevertheless made considerable progress. R2,98 billion worth of projects were planned by the senior engineers during the year, R1,22 billion was spent, and 385 people were coached and/or trained, including students, graduates and in-house staff. SAICE-PDP engineers also contributed to the delivery of housing and addressing service backlogs, with 113 779 households benefiting from new or improved bulk sewage treatment services, and 43 118 benefiting from new or improved bulk water supplies. The dominance of water, sanitation and road development projects can be seen in the pie chart in Figure 1 below, which shows the percentage spending per sector in the 2010/11 financial year.

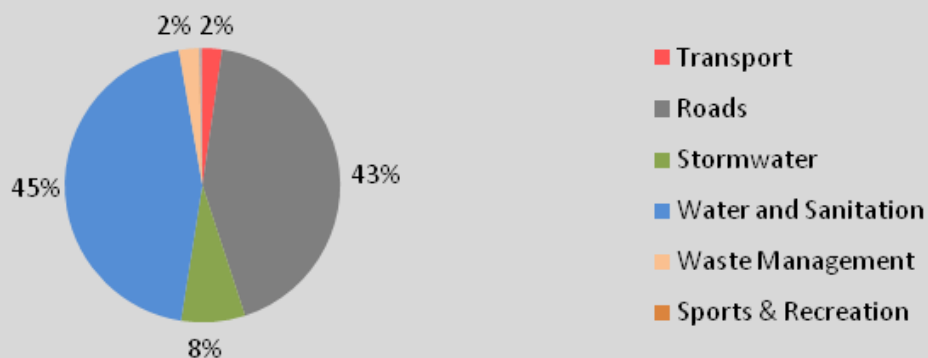


Figure 1 : Percentage expenditure per discipline in Gauteng in the 2010/11 financial year



Figure 2 : Northern Wastewater Treatment Works: Raw Sludge Thickeners completion of central pivot to support new bridge.



Figure 3 : Presenting at an SOP workshop.



Figure 4 : Participating in an SOP workshop.



Figure 5 : Yogendran Govender out on site.

Unique activities which deserve mention in the 2010/11 financial year are as follows:

Johannesburg Water

One of the SAICE-PDP engineers in Johannesburg Water associated with waste water treatment works has initiated a biogas from waste treatment to electricity project which will save Johannesburg Water of the order of R1billion over the next ten years in electricity costs. Interest in the project is enormous with several overseas companies vying to tender for the project. It is anticipated that many more installations will follow at other wastewater treatment works throughout the country because of the rapidly escalating cost of electricity to operate such works.

In terms of capacity-building in Johannesburg Water, another SAICE-PDP engineer has resurrected standard operating procedures (SOPs) and has developed flow charts, manuals and training material to reinstate procedures long since lost in Johannesburg Water. Courses have been enthusiastically attended by Johannesburg Water staff.

Ekurhuleni Metropolitan Municipality

The GIS system incorporating all available dolomite related information is complete and installed as required. EMM is the only Metro who has all this type of information available on one database and which can be accessed by all employees on a need to know basis. This makes EMM a leading role-player in the Dolomite Risk Management environment.

Tshwane Metropolitan Municipality

Deployment in Tshwane was particularly successful in 2010/11. SAICE-PDP engineers were involved in improving the quality of effluent from treatment works and the quality of work delivered by contractors on numerous roads projects. They also trained 46 in-house staff members, students and graduates. Sadly, Pieter de Waal, the mentor in Water Services, and developer of the Candidate Academy's Pipeline Design course passed away after a short struggle with cancer on 20 October 2010 and is sorely missed by his students and colleagues.

In-house training

In-house staff members were trained throughout Gauteng. Several were trained towards professional registration with ECSA. During the year under review three Mogale and two Johannesburg staff members were able to submit their applications and were ultimately registered with ECSA. Large groups in Ekurhuleni and Emfuleni have also commenced with completing their application forms.

Student training

As part of the internship programme, 35 students were placed between five municipalities for 2010/2011, with over 50% of the placements being at Tshwane Municipality. A total of 17 interns who were placed in the prior year successfully completed their practical training and submitted their reports to their respective Universities of Technology.

Graduate training

At 1 April 2010, there were a total of 14 graduates made up of 7 civil and 7 electrical graduates. Due to funding constraints, the remaining civil graduates were absorbed by the DBSA Young Professionals (YP) Programme in July 2010. SAICE PDP retained the electrical graduates who have exceeded our expectations and have made a difference to the Kungwini and Emfuleni municipalities where they were placed. They were involved with major projects, especially in Emfuleni, where they handled projects from the initial tender process through to implementation and completion. Three electrical graduates were subsequently appointed by ESKOM who recognised how well they had been trained. Three town planning graduates were appointed at Kungwini Municipality under the mentorship of a SAICE-PDP senior town planner. They have assisted with the major backlog of planning applications as well as zoning certificates thereby gaining valuable experience. At 31 March 2011, there were nine graduates remaining on the programme.



Figure 6: Thys Human, one of the electrical seniors coaching his students and graduates.

Specialist reports

A number of specialist reports were prepared during the year, collating information gathered by employees across the province. These included the following:

Master Planning Guideline

SAICE-PDP was requested to tap the knowledge of the senior engineers to develop a guideline on the meaning of, and process associated with master planning. It has been recognised that few, if any, Municipal plans span beyond the five-year term of local government. Without planning for increasing bulk capacity in the long-term, raising funds, acquiring land, or registering servitudes, the growth of Municipalities can be severely hampered. The views on what constitutes a master plan were diverse.



Figure 7 : Interns from Tshwane Municipality with their mentor, Mr Peet Potgieter on site.



Figure 8 : YPs attending technical meeting with mentor Dave Lyddell and supervisor Dawid Vermeulen.



Figure 9 : George Sadowski and Interns receiving guidance on a project.



Figure 10: Allyson Lawless and Peter Coetzee receive a Certificate of Recognition from MEC Humphrey Mmemezi.

Much research and debate went into producing the first draft. The final guideline will be launched in the new municipal financial year commencing in July 2011 and will form part of the Councillor Education Programme planned with GDLG&H.

Asset Management Assessment

The Gauteng Department of Finance (GDF) approached SAICE–PDP to review municipal spending on infrastructure and the state of asset management and maintenance in the province. The research was extensive, with all local municipalities cooperating with the senior engineers and the GDF staff. Sadly, it was found that only one municipality had a comprehensive asset management system in place. The balance had simply drawn up asset registers in 2009 to comply with the Auditor General requirements and the data was inadequate for setting up asset management systems. Of great concern was the finding that only 11 to 13% of municipal budgets were spent on infrastructure including capital development and operations and maintenance. There is a need to reprioritise municipal spending to accelerate service delivery.

Competence profiles

To assist with the professionalisation drive mounted by DCoG, the Gauteng team developed a suite of competence profiles incorporating technical duties, and appropriate qualifications and experience for the most senior 100 civil engineering and related posts in local government. It is hoped these will offer guidance to HR and senior management when selecting civil engineering staff.

Recognition

The work of SAICE-PDP was recognised by the province at a luncheon, at which MEC Humphrey Mmemezi thanked SAICE-PDP and SAICA for the work carried out over the past five years. SAICA’s involvement resulted in Gauteng submitting the best quality audited financial statements nationwide. Each professional body received a certificate of recognition from the MEC.

The Development Bank of Southern Africa's Young Professionals Programme

At 1 April 2010, there were 76 YPs on this programme including civil and town planning graduates. Despite the many challenges experienced during the reporting period, the mentors have remained committed to the development of their YPs towards professional registration.

There has been a high turnover of YPs, due to both resignations and performance related terminations. The DBSA initiated counselling sessions to address performance issues and non-compliance with the reporting requirements of the programme. As at 31 March 2011 there were, 76 on the programme.



Figure 11: Yuri Levendal, a YP on site with his mentor, Mr Dave Lyddell.

Recognising that municipal engineering was not covered in detail in tertiary curricula, it was agreed that YPs could attend supplementary training as and when required, to prepare them for each experience in the workplace. A range of courses was identified and attended as shown in Table 1.

Table 1 : Courses attended by YPs in the 2010/11 financial year

COURSE	NUMBER TRAINED
Survey Camp	44
Literacy and report writing	11
Health and safety supervision on a construction site	7
WISA Waste Water Treatment works	3
ArcGIS Training	15
AutoCAD	7
Site administration	7
Stormwater drainage design	4
The management of labour intensive construction projects	1
Planning Africa Conference	16
Basic pressure pipeline design	2
Pavement rehabilitation	1
IMESA Conference	24
Total Attendance	142

The highlight of the year was the submission of seven applications to ECSA and seven to SACPLAN within the record time of three years of workplace training.

The Local Government Sector Education Training Authority B-Tech Bursary Scheme

Twenty-four students were awarded bursaries by the LGSETA in the 2010/2011 financial year. The majority of students who have been awarded bursaries have been able to commence their studies at various Universities of Technology with only a small number remaining on the waiting list for admission in 2011 due to institutions being oversubscribed in 2010. Students have generally done well with one student, Thanda Zulu at Govan Mbeki Local Municipality, passing all eight subjects and obtaining his B-Tech in a record period of 12 months.



Figure 12: Luvuyo Khuselo and Sivatho Nzimma – Bursary holders who graduated in September 2010.

The Local Government Sector Education Training Authority Internship Programme

The LGSETA Internship Programme offers national diploma students placement in local government for their two practical semesters, namely P1 and P2 (Practical Semester 1 and Practical Semester 2). Students placed in local government are able to assist technical departments with basic engineering work and in most instances gain sufficient exposure to complete their P1 and P2 reports. A total of 46 students were placed between seven municipalities for 2010/2011, with King Sabata Local Municipality taking a bold step and marshalling help from the private sector to support 12 students from the area. A total of 35 interns who were placed at four municipalities in the prior year successfully completed their practical training and submitted their reports to their respective Universities of Technology.

The Candidate Academy

The Candidate Academy was conceived to work with young graduates in their early employment years to turn their theoretical training into the practical skills that are so sorely needed by South Africa's modern economy. The initiative involves SAICE-PDP, the SAICE Education and Training Department and the training initiative of Consulting Engineers South Africa (CESA) known as the School of Consulting Engineers.

During the 2010/11 financial year a total of 782 delegates attended the range of courses listed below. The Academy's material is aimed at offering practical, hands-on courses that are relevant to the workplace. Moving away from the mode of 'passive reception', courses involve delegates in 'active learning'. The courses focus on preparing basic plans, designs, documents and processes which are fundamental to developing an engineering career, and include the following:

- Basic transport management
- Pavement rehabilitation and maintenance

- Introduction to sewer design
- Introduction to pressure pipeline design
- Contract administration and quality control
- The road to registration (for candidates)
- The road to registration (for supervisors, mentors and HR managers)

This is the first year that SAICE_PDP offerings were relevant to, and became available to the private sector. Many course delegates came from consulting practices and contracting companies and towards the end of the year the demand for training large in-house groups began to emerge, a trend which we expect will grow in the next financial year.

Local Government Turnaround - Special Purposes Vehicle

Emerging from the launch of the Local Government Turnaround Strategy, the newly formed Department of Cooperative Governance (DCoG) decided to embark on a project to determine how to optimise support programmes to local government, and how to support the weakest of municipalities, who clearly needed more support than capacity building. Allyson Lawless was asked serve on a Ministerial Advisory Committee constituted to review a proposal developed to set up a Special Purposes Vehicle (SPV) within the Department, to offer local government support to improve infrastructure delivery. It was suggested that three levels of support should be offered. High capacity municipalities only required direction and input on best practice. Medium capacity municipality had the potential to earn and become sustainable, but required support to build capacity, systems, procedures and institutional structures conducive to service delivery. It was recognised that low capacity municipalities were generally located in areas where income was limited and it would be necessary to provide skills to actually develop and manage infrastructure on the municipality's behalf. When the SPV is finally launched, business opportunities will exist for SAICE-PDP to offer its capacity building and support services to medium capacity municipalities.



Figure 13 : Attendees at one of the many courses presented by Candidate Academy.



Figure 14: Delegates busy with training activity "Learning by observation".



Figure 15 : The "taxi professional" debate exercise.



Figure 16 : Student calibrating meter on a site.

Review of the Innovation Landscape

In June 2010 Allyson Lawless was asked to serve on a Department of Science and Technology (DST) Ministerial Advisory Committee to review the Innovation Landscape and its readiness to meet the needs of the country. Many reports since the inception of the innovation concept were studied. It was clear that DST had been dedicated to innovation, but cooperation from other technology departments and coordination of innovation activities was lacking. Furthermore, there was limited information with respect to the commercialisation of private sector research and little support from DST for the process. From a civil engineering point of view, it was very evident that the focus of innovation has been on high technology development, and limited research has been devoted to improved methods of service delivery and other solutions to improve the quality of life, particularly for the poor. A second phase of the project will commence in 2011, looking at new areas for research and development and ways of coordinating and capitalising all research and development carried out countrywide.

Masakh' iSizwe Advisory Board

Allyson Lawless and Dave Lyddell continued to offer support to the Masakh' iSizwe Advisory Board in terms of workplace training and links with local government in the Western Cape. The Masakh' iSizwe Centre of Excellence is a capacity-building initiative of the MEC of the Western Cape Department of Transport and Public Works. Two meetings were held with the MEC to discuss the bottlenecks associated education and the need for workplace training.

As a result, the Western Cape is now rolling out a workplace training programme in the province, which is similar to the DBSA's Young Professionals programme. SAICE-PDP delivered Road to Registration training and the Journal Program to candidates and mentors alike. A young graduate, who was a student on our first programme in Bushbuckridge in 2006, asked to deliver the vote of thanks, and closed with a prayer that ended "God bless SAICE". This brought tears to many older eyes in the room.

Gauteng Department of Local Government and Housing

Artisan training in Gauteng

The Artisan Programme which commenced in October 2009 continued in the 2010/11 financial year. The programme was designed to appoint 96 unemployed N4, N5 or N6 learners to attend workshop training and then complete apprenticeships in local government, working with experienced artisans to learn the trade. Institutional training commenced at municipalities in June 2010. The project is being managed by the Department of Local Government and Housing, but SAICE-PDP has continued to offer direction and selected SAICE-PDP engineers who have progressed from the shop floor to becoming professional engineers have acted as master artisans. During the year, the Department experienced administrative difficulties and eventually outsourced the payroll function to SAICE-PDP.

Town planning support to Kungwini

Due to the budget cuts with effect from 1 April 2010, it was necessary to raise co-funding for continued support. The Kungwini Town Planning Department was unable to contribute, but due to the high level of development taking place in the area, GDLG&H agreed to fund continued support. Since inception of the project, extensive development has taken place as shown in Table 2.

Table 2 : Development in Kungwini since 2006

DESCRIPTION	NUMBER/VALUE
Total Number of New Townships Considered	148
Total Number of New Residential Units Planned in these Townships	30,800
Square Meters of Planned Commercial Development	1,330,000 m ²
Total Value of Bulk Contributions to be Invested into Infrastructure	R454 million
Additional Value of New Infrastructure to be Provided by Developers	R525 million
Estimated Potential Increase in Municipal Revenue (per annum)	R400 million
Estimated Number of Permanent Jobs to be Created from Development	22,200

100 x 100

The 100 x 100 project continued during the period under review. The initiative commenced in the SAICE centenary year, 2003, when Dudu Mkhize committed to sourcing 100 high potential rural students to study for engineering degrees in celebration of the centenary. Such has been its success that the project has been rebranded South African Young Engineering Professionals (SAYEP) and addresses all engineering disciplines. SAICE-PDP through interaction with donors was able to raise R50 000 to support this project during the 2010/11 financial year.

GOVERNANCE

The board offers direction and selects projects that comply with our vision. Each project is managed by a project steering committee which is composed of members nominated by sponsors and partners as well as experts in their particular field. The appointment of professionals is based on their expertise, comprehensive business plans, and detailed assessments.

Appointments

Manglin Pillay as CEO of SAICE was appointed as a Director on 9 February 2011, replacing Dawie Botha who retired on 31 March 2011. SAICE_PDP would like to thank Dawie for his invaluable contribution and commitment to the company during his term of office.

Board meetings

The board met on 22 September 2010 and 09 February 2011 under the chairmanship of Gary Drummond.

MEMBERS AND DIRECTORS

Members and directors who were in place as at 31 March 2011 are listed in the table below.

DIRECTORS

Gary Drummond
Allyson Lawless
Dawie Botha
Ali Naidu
Johan Malherbe
Neil Macleod

MEMBERS

Danai Magugumela
Faried Allie
Martin van Veelen
Mehboob Babamia
Sam Amod
Simon Mqamelo