

SAICE's Concrete Lady Takes the Helm

New president of the South African Institution of Civil Engineering (SAICE), Prof Elsabé Kearsley, has pleaded with members not to lose sight of the real beneficiaries of their professional efforts – the ordinary citizens dependent on the infrastructure they provide. Lani van Vuuren reports.

Delivering her inaugural address in February, Prof Kearsley, a specialist in the field of concrete materials and Head of the Department of Civil Engineering at the University of Pretoria, said that the civil engineering profession was essentially about saving lives and improving the quality of life of communities. This was a fact that engineering professionals should not lose sight of. "As civil engineers we should see it as our privilege to use the knowledge we acquired through tertiary education to serve society. We are the custodians of modern civilisation and it is our responsibility to look after and maintain society."

This also included ensuring investment in infrastructure remained a priority for government, noted Prof Kearsley. "Every decision-maker should be aware of the fact that clean water and sanitation, which is a fundamental requirement for healthy communities, can only be delivered as a result of the effort of civil engineering professionals. Likewise structural engineering makes it possible to erect safe, durable and strong shelters, and transportation engineering is required to move people and products."

According to Prof Kearsley, it was "impossible" for a modern civilisation to exist without civil engineering, and she berated civil engineers for not putting in more effort to convince society of the importance of employing engineering professionals to execute technical functions.

With regards to the future, Prof Kearsley expressed her grave concern over the

career guidance and subject choices offered to learners. Instead of encouraging learners to study much needed skills, for example, mathematics and science, many schools rather aimed to boost their pass rates by steering learners away from these perceived difficult subjects.

The new SAICE president was especially disconcerted over the fact that the Department of Education announced in 2008 that the third mathematics paper (covering geometry and trigonometry – skills one would need for an engineering education) was not compulsory for the final countrywide exam at the end of last year. Many schools did not even cover this work and pupils were instructed to find private tutoring if they wanted to write the paper. In the end, very few learners did.

Urgent intervention was required to prevent this situation from perpetuating, maintained Prof Kearsley. "We as engineering professionals are the only people who can speak up to ensure that our school system does not make it impossible to train the engineering professionals this country needs for the future," she said.

She added that more attention needed to be paid to research and development. Citing the examples of the development of the personal computer and the advances in telecommunications, especially since the advent of the cellular telephone, Prof Kearsley noted that years of

research were required between the initial development of the idea and the large-scale market acceptance of the concept.

At present, South Africa undertakes only about 0,5% of global research. "To date, the civil engineering community has been very slow at investing in research, and the time is ripe for the industry as a whole to develop a collective approach to support research and development."

South African engineers are highly rated internationally and many problems have been solved through the creativity of locally-trained experts. Local civil engineering professionals can make a difference. "As practitioners we need to promote our profession by ensuring that all decision-makers know exactly what the extent of the contribution of civil engineering is in any modern civilisation," said Prof Kearsley. "We have to engineer a better future, not only for ourselves, but for everybody in South Africa."



Prof Kearsley receives her presidential chain from outgoing SAICE president Johan de Koker, with assistance from SAICE's Zina Giral.