

# Section Report for South Africa

April 2007

## 1. Officers

We have appointed a new chair for 2007 and 2008 and we are in the process of electing and appointing a vice chair and some new chapter chairs and other officers

## 2. Activities

We have 11 chapters and affinity groups which together held about 62 meetings in 2006. There are also a number of active student groups

## 3. Membership Development

We held a very successful membership development workshop for countries in Southern Africa in Cape Town in December 2006

## 6. Africon 2007

The year 2006 was a year of preparation for Africon to be held in September 2007. Committees and review panels were established. Web pages and administrative procedures were set up. Budgets were drawn up and we are still working hard to get more industry sponsors. We have received more than 300 papers and the review process is well underway.

## 4. Teacher In-Service Training Programme for South Africa

Engineers from various disciplines met in Cape Town to learn more about how to support mathematics, science and technology teaching in schools. They attended a training session hosted by the Cape Peninsula University of Technology and the Institute of Electrical and Electronics Engineers. The workshop was planned in co-operation with the SAIEE (South African Institute of Electrical Engineers) and the Western Cape Education Department (WCED)

During the planning stage subject specialists from the Department of Education studied Teacher In-Service Program (TISP) lesson material available from IEEE and identified two lesson plans suitable for South African teachers. These lesson plans were adapted to meet South African education standards. The one lesson plan dealt with Ohm's law and the other dealt with balances, so the one had an electrical flavour while the other had a mechanical flavour.

The training session, funded by the IEEE, was held on 4 and 5 August 2006 at the Victoria & Alfred Hotel at the Waterfront in Cape Town. Strategies for building effective partnerships were discussed with schools and teachers. Engineers and educators demonstrated the lesson plans and material, adapted for South Africa, during this session. These lesson plans with handouts for educators and learners were given to all participants they were suitable to be used in the classroom as they are.

The training session was held under the auspices of IEEE's Teacher In-Service Program (TISP) Training for South Africa. TISP assists schools as they implement the new curriculum for Further Education and Training (FET) in schools, which covers Grades 10 to 12. TISP is a proven program that leverages existing engineering skills in the country to assist teachers.

The overall goal of the program in South Africa is to encourage collaboration between the engineering team and local education departments, to establish in-service training sessions for teachers who are teaching subjects related to engineering in Grades 10 to 12. Cameron Dugmore, MEC for Education in the Western Cape, said: "This program is an excellent example of how all sectors can cooperate to improve the quality of education in the country and to build the scarce skills we desperately need to grow and share the economy. We are deeply grateful to the engineers taking part in this program, and look forward to working with them as we develop the teaching skills and knowledge of our teachers."

The workshop attracted about 90 participants, about 30 from education departments and 60 volunteer engineers. Top officials from the national education department and about all of the 9 provincial education departments were present. Engineers came to understand the challenges that education departments face and showed commitment to help teachers understand engineering principles and applications so as to equip them with knowledge and lesson plans to teach engineering related subjects.

After the workshop what was discussed was put into practice and about 400 educators were trained in September 2006. While we have a meeting in Sofia, there is another training session in East London, South Africa for about 80 educators, with further training sessions planned for June 2007, so the work is continuing.

## **5. Co-operation with local societies**

We have had discussions with the South African Institute of Electrical Engineers (SAIEE) to renew our memorandum of understanding with them and to discuss ways in which we can put the memorandum into practice strengthen the relationship between us. I also serve on the local committee of the SAIEE, and have done so for many years, this helps to strengthen the relationship. The president and the executives of the SAIEE for the

## **6 IEEE as a Transnational Society**

I think that cooperation with local societies can help tremendously to improve the transnational character of the IEEE. The co-operation we had from the SAIEE in our effort to establish TISP in South Africa is an example of this, helping to ensure that help given by the IEEE is not seen as "outside interference". My experience is that the activities of NGO's set up and funded by organisations outside South Africa are often not appreciated, they are seen as "foreign interference". This was definitely not the case with IEEE's TISP.

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Chair: South African Section  
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