

## Message from the Chairman



At the January AGM I was elected to the Chair of the Eastern Cape Centre committee. It is a privilege to take the reins and build on the momentum of the past few years.

Time flies. It is hard to believe that we are on the downhill side of 2013 but so far our branch of the SAIEE has been quite busy with the matters of the Institute.

I attended a council meeting at SAIEE head office in May and was immensely impressed with the work that is being done in the interest of electrical engineers. The Branch Chairs were made to feel very welcome and were able to attend many of the committee meetings that take place prior to the full Council Meeting at the end of a very long day.

There are many people doing great background work at SAIEE in Johannesburg, and some applause from our local branch is in order.

We as branch members also need to take stock, and become more active in SAIEE matters and more visible in the society that we serve.

The local committee identified communication and interaction amongst local members as key focus areas for the immediate future, hence this first newsletter to highlight our regional activities.

On the social side, we had a very successful committee meeting and social event for members at Bridge Street Breweries early in June. The locally brewed refreshments ensured that we had all the committee members plus one spare member present for our deliberations. We hope to build on this by organising events that are both informative and social in nature. So, in the distorted words of JFK, please do ask what you can do for the SAIEE. Your input and suggestions are welcome and vital for a dynamic organization.

We report on another educational and social event which took place on 4 July 2013 at the General Motors Plant in Struandale, Port Elizabeth. Thanks to Angus Clark who facilitated this visit.

The remainder of the year is planned to include:

- A workshop on small scale renewable energy systems.
- A workshop on SANS10142-2 MV Substations
- Student Presentations
- The 2013 Bernard Price Memorial Lecture

I wish to express my appreciation for the hard work and enthusiastic support of the committee members. I know it is not always easy to attend to the interests of voluntary organizations, but you do it with grace and commitment.

Dawid Bester

## The 2013 incoming SAIEE President visits NMMU



*The Presidential Address took place on 11 April, and Paul Van Niekerk gave us a bird's eye perspective of the state of the electrical engineering industry in South Africa.*

*The meeting was well attended, and it was encouraging to have had many of the NMMU students present. To observers of age gaps, the absence of a lost generation of engineers in the audience was quite apparent.*

*Against this background, Paul's emphasis on mentorship programmes was welcome news to both the younger engineers and those approaching the end of their formal careers.*

*Knowledge abounds amongst our SAIEE members, but we need to be creative in establishing more formal mechanisms for the transfer of knowledge and skills to our younger colleagues entering the profession. Be assured that the SAIEE is playing a meaningful role in this regard.*



## BRIDGE STREET BREWERIES



**Members were treated to a tour of the micro brewery and the techniques of producing a fine beer.**

**Sampling the wares was hard work but worth the effort!**



## GREEN POWER TO EASTERN CAPE



Not long from now the horizon will change when you travel from Port Elizabeth to Cape Town . We will see objects that we are not used to; huge fans that harvest the wind and generate green power for the electrical grid. Total height of these units will be 150 meter, with a blade of 50 meters. One of the wind farms close to Jeffreys Bay is now under construction and is expected to generate by July next year. The foundations have been laid for 12 of these turbines with 39 still to come. The roads to and from this wind farm are being upgraded to make provision for the transport of the equipment.

A new substation will be built by Eskom where the generated power will enter the electrical grid. The control technology makes it possible that the managing of the generators can be done remotely from the wind farm.

The output will be about 138 MW; not huge if you consider that one of Eskom's modern coal power stations generates 600 MW per generator, but this is the first commercial wind farm in the Eastern Cape and in South Africa.

At the end of the project there will be 51 units about 500 meters apart with 18 km of power cable to distribute the power from the units to a control room. In the control room will be the protection equipment with associated switchgear for each unit.

From this building the power will be stepped up from the generated voltage to 132 kV. The Eskom grid connection will then be done through a substation called Sunnyside. There will be 2 lines, one to Melkhout (close to Humansdorp) and another to Grassridge (close to Kouga).

More farms are planned in the Oyster Bay area. Power lines need to be built from Melkhout (Eskom sub close to Humansdorp) to a substation close to Oyster Bay. The preparation and construction of this wind farm will be soon, as according to plan it should generate power by the end of 2014.

Above will change the way we thought electricity would be generated. This is clean electricity, as it is only using the wind energy.

And my experience is that Jeffreys Bay is the capital of where wind is generated!

Johannes Weyers



## General Motors Tour

Angus Clark, the GMSA Plant Engineering Manager, hosted 17 members on a tour of the General Motors Struandale plant at the beginning of April.



The group included Maurice Walter (86-Fellow member), and his wife.

The two hour visit started with safety instructions for visitors; as this complex and compact plant is extremely hazardous.

GMSA place the highest priority on maintaining a safe workplace and SAIEE members were impressed by the strict adherence to safety rules and precautionary measures throughout the facilities.



Struandale factory is a unique blend of automated and labour intensive manufacturing cells, which effectively produce ISUZU LDV and Chevrolet models from a mix of local and imported components.



We thank Angus for facilitating the visit and spending his valuable time with the participating members to provide some fascinating insights into the inner workings of an impressive vehicle assembly facility.

## 2013 Eastern Cape Centre committee

Chairman Dawid Bester C A DuToit Consultants	Past Chairman Sarel Schoombie NMMU	Treasurer Alan Roberts NMMU	Elected member Jacques van der Heide	Elected member Antony Falconer

Elected member Armand Gerber	Elected member Dale Liebenberg	Elected member Johannes Weyers	Elected member Bernard Tlali	Elected member Ronald Bartlett	Elected member Ikho Bambiso Student Representative

