



ICMEESA news

May 2008

THE INSTITUTION OF CERTIFICATED MECHANICAL AND ELECTRICAL ENGINEERS, SOUTH AFRICA

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**ICMEESA – President 2008
Mr Chris Schnehage**

1. Office bearers Elected for 2008

At the Annual General Meeting the following members were elected to serve council for 2008:

President:	Chris Schnehage
Immediate Past President:	Vaughan Townsend
Senior Vice President:	Jack Cunnington
Vice President:	Obed Letsholo
Honorary Treasurer:	Robbie Holmwood

2. Presidents Review of 2007

In accordance with clause 4.03 of the Constitution, the Council has pleasure in presenting the Ninety-Seventh Annual Report and Financial Statement for the year ended 31 December 2007.

The year has been a busy one for most Council members, with a huge amount of time and energy being put into matters relating to engineering by various members of EXCO and Council. This Annual report serves to provide a brief summary of some of the actions taken during the year. The extent of the matters attended to are not necessarily limited to what is reflected in the report.

Due to various reasons I have been unable to attend many branch activities. I represented the Institution at the Mine Resident Engineers Association (AMRE) AGM and Annual Banquet and the SAIEE Annual Banquet. Vaughan Townsend attended the South African Institution of Mining & Metallurgy (SAIMM) AGM in August in my stead. Vaughan further attended a cocktail function hosted by ECSA in May. Jack Cunnington attended the inauguration of the new ECSA President in November.

Some of the activities that Council was active in were:

- Participation in the GLab Questionnaire on "Role of the Certificated Engineer" distributed by the AMRE
- Comments provided to the Construction Industry Development Board (CIDB) on the Draft Bill related to the CIDB

CONTENTS

1. Office bearers elected for 2008.
2. Presidents Review of 2007.
3. Presidential Address.
4. Editors Comments.
5. New Members 2008.
6. Engineers thinking.

- Participation with other Voluntary Associations by forming part of a CPD co-ordinating committee for agreeing to general issues relating to validation of courses and various CPD activities.
- Attendance of a workshop on the Certificated Engineer hosted by the Mines Professional Associations (MPA's) by Vaughan Townsend. This has been a continued interaction throughout the year.
- Invitation was extended to the Institution to give input into the proposed establishment of a Technology Innovation Agency Bill in September. This venture was hosted by the Department of Science and Technology.
- Invited to participate in the Department of Provincial and Local Government Draft Professionalization Framework. This venture was aimed specifically at other professions within the local government structures and very little to do with Engineering as such.

In November a meeting was held with the CEO of ECSA together with the chairperson of the Pr Cert Eng Registration Committee about the difficulty experienced by Certificated Engineers in registering as Pr Cert Eng. It was a fruitful meeting and as such the requirements as stipulated for registration unpacked. The issue is mainly around the requirement of a legal appointment. This matter still needs some further discussion within our membership as the requisite for Pr Cert Eng Registration hinges on a legal appointment.

We also hosted a workshop in November to discuss the Future of the Institution. This item requires constant looking at as the dynamics of life change all the time. The workshop was well attended and some good ideas emanated from the discussions. The main items discussed are appended to the annual report for interest and further discussion. There are items raised to which the Institution needs to pay particular attention, the main item being the role of the Department of Labour.

As far as the branches of the Institution is concerned, the Gauteng branch has been without a chairman for quite a while and Mr. Dave Reading has agreed to take up the challenge. This is our largest branch and by far should be providing activities for members to participate in. I would like to wish Dave all the best and we at Council will certainly assist wherever possible. The Eastern Cape branch has been resurrected by Greg Clack. Good luck to you Greg. Then unfortunately we have not been successful in finding representatives to Council from the Klerksdorp branch. The Free State branch is still represented by Ian Buchanan, but there is very little activity.

We have put Obed Letsholo's name forward to serve on the Pr Cert Eng Registration Committee in the

place of Brian French who has retired from the committee, but to date have not been informed whether nomination has been accepted or not.

During the year the CPD Valuation sub committee have been active in that a course in the Western Cape has been accredited CPD points as well as a number of courses offered by M-Tech.

A list of the committees and activities that members of the Institution are represented is contained in this document. I wish to extend a word of thanks to each and every one serving on these committees. The time spent on these activities is high and very seldom do they get the recognition they deserve.

As far as the financial situation of the Institution goes, we are in the good hands of Robbie Holmwood who, in spite of being in Zambia for all of the year, has done a sterling job. Between him and Fiona, they have managed the financial situation. One can see in the reports that we are managing to stay on an even keel and therefore have found it unnecessary to increase fees too dramatically.

The ICMEESA News bulletin has still been circulated on a quarterly basis, while the Western Cape News Bulletin has also been circulated to members. Thank you to all who contribute to these two publications. Our "official" journal though, being the Vector, needs to be fed more information on Institution news and activities so that it serves the members better. This will be one of the challenges for 2008.

Thank you to the newly elected Council and Exco as well as the Vice Presidents who are making themselves available for the coming year. Thank you too to the branches committee members who constantly interface with their members and do a sterling job in presenting papers and visits for their members.

Finally, thank you to all our members. We always look forward to communicating with you and I would like to encourage further communication as that is one of our weaknesses as found in the workshop.

May the Institution continue to represent its members in the best way possible.

Thank you, ladies and gentlemen

3. Presidents Address

Ladies and gentlemen

It is an honour for me to serve a second term as President of this august Institution. At present most people re speaking about Eskom and the electricity crisis and what should have been done, what can be done and what needs to be done to reduce the impact of the electrical supply shortages. I have chosen to steer clear of this subject as I do not profess to be in the know as to what is really happening.

One item I would like to briefly address is the skills shortage in South Africa. How is this affecting us I ask? It can clearly be seen in the mining industry where a mine is operating with up to 6 Certificated Engineers, 14 Foremen and up to 40 artisans short. Now I ask you, how can a mine operate at full capacity with this type of shortage? What happens to safety – the key function around which we operate? Never mind the strain and pressure placed on the persons in position who need to take up and fill the gaps left! I am sure that the above scenario is not just applicable to one mine, neither only to the mining industry. What about the requirements for skills in the construction industry like the building of stadiums, the Gautrain project etc?

It is no wonder that organisations like ours are experiencing a lack of participation by members! One just needs to look at attendance to meetings like this one this evening and the near closure of branches to witness this pressure placed on our members. If one looks at our members of Council, especially those who sit on various ECSA committees etc. who look after the interests of our members and the voluntary time they spend on these meetings, one looks at the older generation and the committed members. No new and young members are coming forward to take over. What does this lead to in the future?

The above is an illustration on how the skills shortage is even having a direct affect on Institutions like ours. Maybe this is why some Institutions are moving towards permanent appointment of staff?

Back to skills shortages. What worries me is that very little is being done to stop the gap getting bigger. First the apprenticeship system was disbanded to learnerships. This process was not successful at all and produced very few artisans. Now there appears to be a return to the apprenticeship process. But one needs to look at what is in place for an apprentice. The education of the apprentices was always the N stream – N1, N2, N3 etc, with N2 trade theory being a pre-requisite. Now these courses as trimesters are no longer offered. The replacement is a series of National Vocational Certificate (NVC) courses which consist of 7 subjects and take a year to complete. Once the student has achieved NVC 3 he would still need to write trade theory before the necessary practical training would lead to a trade test.

Thus we are back at 4 to 5 year apprenticeships! Surely this process is not going to open a supply of skilled persons? Now I wonder why the means to accelerate the process as was done in the past is not re-instated. And so the chain of supply of skills to foreman and ultimately Certificated Engineer is thwarted.

Back on to electrical supply – or something to make the mind work. I read an interesting article in a recent Engineering News titled “Wind farms more harmful to the environment than power stations” by Kelvin Kemm which made me think a bit. He speaks about the theory in physics called the chaos theory. The story goes that even a butterfly flapping its wings under a tree causes an alteration in the air pattern in the leaves of the tree.

Now apply this theory to the very promoted topic of renewable energy supply. Picture a wind turbine in the air. Then picture this. A landscape along the West Coast where there is nothing – the wind blows and the rain clouds are blown say a 100km up stream, where rain falls – when it falls – and a rain pattern has formed over the years. Then someone (Eskom) comes along and builds a series of wind turbines and places them in line across the escarpment (this is the current plan). Now each turbine is needing say 1.5MW of power to drive each turbine. So as the blades turn, the 1.5MW is taken out of the power of the wind (never mind the change in turbulence) which means that this amount of power now reduces distance the rain clouds would be driven before they drop their load at say only 80km away now – what is going to happen to the area 100km away? Become a desert?

The Danes have just installed a number of 8MW wind turbines in the sea off the coast of Denmark – now imagine the challenges to firstly install these units and secondly what power is taken out of the wind! I wonder what the impact this may have on the weather patterns – if any!

I hope that I have raised some issues that would make discussions interesting.

4. Editors Comment

For the second time in three years, the subject of the Presidents address has touched on the “skills shortage”. I remember it well, ICMEESA newsletter March 2006. The President’s address was titled “*Is History Repeating Itself –The Skills Shortage*” by Vaughan Townsend.

I supported the President’s address in that same newsletter with a column entitled “*Living in the Chrystal Ball – A look into the future*”

I had been working on the Copper belt in Zambia at the time and wrote the following:

These last six months have made me seriously reflect on what retirement is going to be like in the RSA within the next ten to twenty years. I often wonder if I am not now living in the proverbial crystal ball with the future now being reality, with nothing virtual about it at all.

The motivation for saying that is that power outages, poor potable water quality, polluting of water sources, inoperative sewerage plants, fuel shortages and general deterioration of roads and municipal infrastructure and services are an accepted part of everyday life here. For example, power outages at specified times and days of the week, of up to two hours are an accepted form of municipal power control.

Not that I desire to be perceived in the same manner as Seiner van Rensburg or Nostradamus, but it gives one food for thought when you extrapolate this into the future.

Let me address the concern expressed by Chris on mines operating with serious shortages of staff and the effect on safety.

I returned to gold mining in the RSA in January this year, to what appears to have been a self fulfilling prophecy, as it took us three hours to travel from O. R. Tambo international to Northcliff, due to the chaos resulting from load shedding and no traffic lights being operational.

On the mines I am perturbed to witness the apparent lack of standards generally. I initially thought that three years out of the underground environment had eroded thirty five years of industrial blindness. A safety officer in one of the larger mining houses consoled me by stating that, even on mines with apparent structures and standards, there are basic things out of place on the workface.

To concur with Chris, we are short of engineering skills and are now participating in what is best described as the mining labour auction. Job offers are accepted enthusiastically only to be turned down days later due to counter offers from existing employers when the employee resigns.

This skills problem lies not only within industry, but within the DME and DoL. They are seriously short of adequately experienced personnel who have historically played a key role in safety communication and information transfer. Presently there are ongoing changes to regulations with the intent of deregulating the industry so that it is less prescriptive and places the onus on the operator to ensure that the necessary precautions are in place. With no competent engineers, who will be making those decisions? There is reason for concern.

There is progress with training but it appears to be a case of too little too late. There lie tough times ahead for the Certificated Engineer.

There is no doubt in my mind that the problem is not being addressed at the correct level. And that being schooling. Surely, the fact that we simultaneously have high unemployment and a skills shortage, tells you that we have a fundamental education problem.

Not sure what the solution is but we seem to have aggravated the situation with misplaced systems that have again been changed. Private training companies need to address and measurably satisfy the needs of paying clients. Our education department needs to similarly ensure that it is satisfying the real needs of this beautiful country in which we live.

5. New Members 2008

We welcome the following new members and trust that their association with ICMEESA will be a long and meaningful.

<u>Name</u>	<u>Mem Grade</u>	<u>Branch</u>
J C Blair	Senior	Eastcape
J S Du Plessis	Member	Westcape
J R Fourie	Member	Gauteng
G E Johnson	Member	Gauteng
D C Olwage	Member	Rustenburg
P R Ramdhani	Member	Rustenburg
M I Stadt	Member	Eastcape
H G Borate	Associate	Kwazulu
G O Small	Associate	Westcape
R B Ansah	Student	Gauteng
N J Els	Student	Gauteng
M Gwebu	Student	International
A K Masike	Student	Gauteng
M M Matola	Student	Kwazulu
M W Mhlongo	Student	Westcape
P P Molabe	Student	Gauteng
W S Shoji	Student	Kwazulu
A C Steenkamp	Student	Gauteng
D M Vermeulen	Student	Eastcape
W H Vermeulen	Student	Westcape
A J Theys	Member	Westcape
D G Wilcock	Member	Eastcape
S Mathews	Associate	Gauteng
E A De Meillon	Student	Eastcape
H V Hendricks	Student	Gauteng
L A Selialia	Student	Gauteng
W A Van Zyl	Student	Mpumalanga

6. Engineers thinking

A Certificated engineer stood in the ATM queue when an explosion occurred. The ATM thief greedily scooped the money into a bag and turned around before replacing his balaclava. Alarmed, and realizing his error, the thief pulled his gun and asked the person behind him "did you see my face"?

The person replied positively, and was shot dead. The thief turned to the engineer and asked the same question to the engineer, who replied: "no, but my wife did".