

# ICMEESA news

Sep 2004

THE INSTITUTION OF CERTIFICATED MECHANICAL AND ELECTRICAL ENGINEERS, SOUTH AFRICA

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**President of ICMEESA: Dr Gus Muller**

## Message from the President

These past few months I have been extensively involved in infrastructure audits, condition evaluations and statutory inspections. Of concern is the dilapidated state that the infrastructure as a whole is in.

More concerning is the fact that this unhealthy state is a result of mismanagement due to either wilful negligence or ignorance. In some instances installations were totally ineffective and were in a state of self-destruction that would probably result in a life threatening condition eventually.

Since it is this time of the year where the candidates again sit the Government Certificate of Competency examinations, I receive numerous calls pertaining to training, guidance, and the solving of previous examination questions.

Considering the poor infrastructure experience mentioned, and also being involved with the training of engineers, I ponder on how it is possible that after so much training and effort, do the outcomes appear so unsatisfactory.

To what extent are we as engineers responsible for this unsatisfactory outcome? As Certificated Engineers we do much in the form of training, mentoring and guidance. Unfortunately we limit this to our own kind, the future Certificated Engineers. That is very good and well, and is to be commended and encourage. Yet seen from a different perspective it is the same as preaching for the converted.

There are two other groups of people who are left behind and need to have some of our " training "

also. Since training is such a strong word, let's call it advisory.

The first category are the managers of the said infrastructure where these are not technical people. As Certificated Engineers, it is our duty to take the time to adequately inform these persons on not only the substandard conditions that exist, but also the folly of their decisions and consequences of maintaining the status quo. The engineer should not be seen to be adding value to the business at hand. It is up to us as engineers to eradicate the perception that we are there solely to comply with a statutory requirement.

One language everybody clearly understands is the financial effect on the budget. I have on numerous occasions been thanked for my inputs in explaining the problem in such a manner that it created better understanding of the technical engineering problem to those in other disciplines. Having achieved this objective, the reaction was positive and resulted in immediate action to rectify the problems.

The days of scaring people with the big stick or the law are long gone, and the proof of that phenomenon is just in the very condition that the plant and equipment is presently in, regardless of the consequences.

The second category is our colleagues in the different engineering fraternities. Not being Certificated Engineers, they do not necessarily share the same task minded views as we do. Here again is the need to coach them to appreciate the technical issues at hand. It takes patience to convince someone to provide the necessary financial resources to ensure that the necessary standards of certification, calibration and verification inspections render the required results.

To summarise, we have an obligation to adequately inform all persons operating external to our technical engineering domain regarding three aspects of operation.

Firstly, the statutory side with its requirements, obligations, duties and penalties in case of misconduct.

Secondly, the costs and saving achieved if the correct performance and efficiencies are achieved. Statistically the cost of preventative maintenance has proven to be an eighth of the cost of the repair or alternatively the consequential loss of production.

Thirdly, we need to focus on the economical side of effective preventative maintenance with consideration to safety and environmental pollution. The historical Effective maintenance can result in reduce or even eliminate insurance payments.

If we can convert everybody involved regarding the above-mentioned aspects, imagine the immaculate condition that our surroundings will be in.

**Contents of this News Letter**

In the previous editions we have concentrated on issues external to our Institution but relevant to the Certificated Engineer. This edition will focus on matters internal to the ICMEE.

The contents are:

1. Our Mission and Vision
2. Membership status and trends
3. Branch activity
4. WP Jones - Bursary fund.

**ICMEESA Mission Statement**

The mission of the Institution of Certificated Mechanical and Electrical Engineers, South Africa, is to uphold the professional image, status and interests of all Certificated Mechanical and Electrical Engineers through:

1. Representing the Certificated Engineer through pro-active participation on statutory, educational and professional decision-making bodies.
2. Regular formal communication to and between members so as to promote member interaction, fellowship and ongoing professional development of the Certificated Engineer
3. Active participation at branch level

**ICMEESA Vision**

Membership of ICMEESA will be highly regarded by members through the visible and tangible added value benefit of membership through a combination of active branch activity and sound inter communication to and between the members that will achieve the desired objectives

**Membership trends**

Membership is still following an exciting and positive trend as depicted in the "New Membership Trends" graph below. This trend is maintained in spite of economic factors causing a decline in the number of engineers employed. The area worst affected, and the largest proportion of our membership base, is the mining industry. The number of experienced engineers joining is also encouraging, as one would

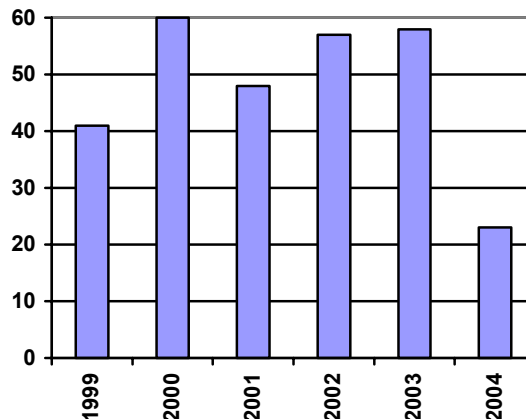
expect the student membership to be the main source.

Membership trends and sound finances are synonymous. Thanks to the positive response of the members I am pleased to report that subscriptions paid, have exceeded budget for 2004 to date. Trends also show that some "lost" members have also resumed membership. Perhaps receiving this newsletter on a quarterly basis has resulted in renewed interest in Institution matters. While on the subject of subscriptions, we again have a large number of members whose subscriptions have been paid on their behalf by their employer, without identifying the member. If you receive a reminder invoice with this newsletter and have paid, please contact the secretary so that we can resolve the problem.

Membership branch profile is as follows:

Gauteng	39%
Kwa Zulu Natal	20%
Western Cape	15%
Mpumalanga	6%
Rustenburg	6%
Eastern Cape	6%
Klerksdorp	4%
International	2%
Freestate	2%

**New Membership Trends**



**WP Jones Bursary Fund**

ICMEESA is privileged to be bequeathed a trust fund from a previous member by the name of Mr W P Jones. The ICMEESA database no longer has information regarding this member, but we have obtained limited information from a family member as to the character to which we are so grateful. I thought it fitting that we pay tribute to the person responsible for enabling the ICMEESA to provide a bursary for study in engineering. In previous years, depending on available finances, the bursary allocations from

ICMEESA was in the form of supplementary contributions. The present situation will allow the ICMEESA to provide more meaningful support in the form of a full bursary. Members whose children are studying electrical or mechanical engineering are encouraged to apply for the bursary, which is not restricted to members or their family. Bursary application forms can be obtained from the secretary or downloaded from [www.icmeesa.com](http://www.icmeesa.com).

Mr W.M Patric Jones, "Paddy", came to South Africa in 1902 and was a man of many and diverse talents. In 1935 he was Deputy Chairman of the South African Torbanite Mining and Refining Co. Ltd. An invitation to attend a garden party, in the presence of the King and Queen in 1947, suggests that he was an influential engineer of high standing. He held a position in the treasury department in Pretoria. He was involved with the Pretoria Amateur Operatic Society, participating in, producing and assisting in various well-known productions.

We trust that the legacy of Paddy Jones will grant students the opportunity to rise to similar success as engineers and businessmen, making a positive contribution to society.

#### Branch Activities

Size does not matter when it comes to setting the example for ICMEESA branch activity. One of the smaller branches, Klerksdorp, has continued the tradition of being the most active and spirited branch through active involvement of members and a motivated committee.

Klerksdorp is setting the example through managing to sponsor a student in the field of Mechanical or Electrical Engineering at Technikon or University for the past nine years, having started in 1995. After careful selection criteria, based on S1 results, and a panel interview by the branch Bursary Committee, the 2003 bursary was awarded to Patrick Mokgoba, a full time student in Mechanical Engineering at Vaal University of Technology (old Vaal Triangle Technikon) in Vanderbijlpark.

The Klerksdorp branch is extremely proud of the performance of their bursar. His results have been phenomenal, passing three of six subjects with distinctions on S2/S3 level during the second semester of 2003. In the first semester of 2004 Patrick achieved 2 distinctions with results as follows:

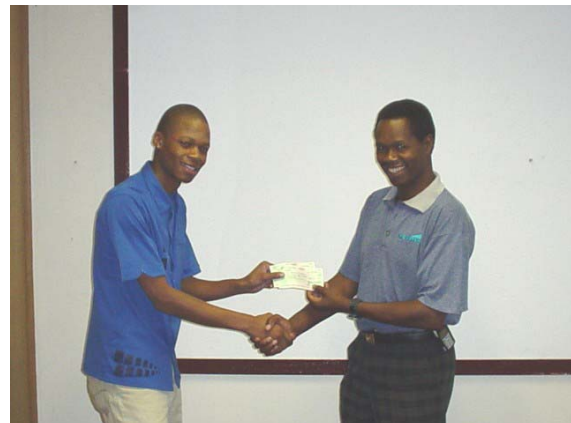
Electrical Engineering 2	61%
Electrical Machines 2	62%
Steam Plant 3	72%
Strength of Materials 3	75%
Theory of Machines 3	81%

The ICMEESA congratulates Patrick on his outstanding achievements and wish him all the best for next semester.

Being Patrick's last semester, the Klerksdorp branch is on the look out for a worthy student to sponsor the following semester. If anyone is aware of a prospective engineering student, in the Klerksdorp, area, that requires study assistance, please contact:  
Past Branch Chairman: Obed at 082 828 7837  
Branch Chairman: Andries at 072 993 5822

You may ask, so how can a branch afford to financially support this financial outlay each year? Formal functions may have been the fundraiser years ago, but it required lots of input for little reward. The introduction of the ICMEESA Klerksdorp Branch annual golf day was initially unsuccessful as a fundraiser. However not to be beaten by adversity, the branch persisted with the golf day. The format of the day was changed to suit the sponsor's requirements. The final result has been a success story of note. The financial success of the day prompted the introduction of the bursary sponsorship. The ICMEESA Golf Day is now an annual event held in June at the Stilfontein Golf Club.

The Klerksdorp committee would once again like to thank the sponsors of the Golf Day for their financial support and wish Patrick the best of luck for his studies during the second semester of 2004!



*Due to Patrick's commitment and enthusiasm, the Committee has again decided to award the bursary to him for the second semester of 2004. The photo shows Patrick (on the left) accepting the cheques from Obed Letsholo, Past President of the Klerksdorp Branch of the ICMEESA.*

#### Advantages of ICMEESA Membership

Instead of the usual "common Q&A" section I thought it good to elaborate on the answer to the all too common question of the new member - "why join ICMEESA"? Only this time there is only one "Q" and plenty of "A's".

Some of the advantages are:

1. The ICMEESA is formally recognised by other professional and legal bodies, as the legitimate body representing the interest of all Certificated Engineers.

2. The ICMEESA is the only forum representing Certificated Engineers holding all Certificates, Mines, Factories, Mechanical and Electrical.
3. The branches provide an active forum for sharing common interests and broadening the general engineering knowledge of the members.
4. Through the institution, members have a recognised formal channel of communication to other professional and statutory bodies.
5. Members have, through the formal nomination of ICMEESA representatives, input, representation and involvement on professional and statutory bodies through which the interests of the Certificated Engineer are enhanced and maintained.
6. Benefits of membership include free distribution of technical journals and newsletters.

#### **ICMEESA and the Future**

The previous editions of ICMEESA News reflected on a few of the changes occurring within the engineering profession. Engineers, especially the younger generation, need to reflect on how these changes will affect their lives into the future? Item 5, listed above, becomes all-important. It is, however, concerning to note the lack of involvement of the younger generation in these activities generally, whether it is through ICMEESA or other means.

Instead of sitting here typing this newsletter, I should really be grumpy that the younger set for having moved me out of office and out to pasture because of my archaic mindset.

So what do these new changes mean to the Professional Certificated Engineer?

Legislation is but one component to ensure that the necessary competent persons perform specific tasks. The continued need for the Professional Certificated Engineer in industry is necessary through his proactive contribution to productivity and safety.

The future South African industry must overcome the tradition poor productivity. The obvious solution is the introduction of mechanization and automation. This will create further need for competent Professional Certificated Engineers. With an ever deteriorating higher education system and growing emigration, one can only predict that the shortage of university graduates will prevail into the future.

To compliment this shortage of skilled Professional Engineers, the Professional Certificated Engineer has an ongoing role to play. Certification or compulsory registration as a form of licensing will be necessary as a means to protect the public health and safety. This should be seen in the context of enabling competent persons to take responsibility for work that requires professional skills.

Such registration also needs to tie in and be compatible with standard setting and competence assessment in other fields. Overseas recognition, both of the accreditation process and education programs and individual registration needs to be pursued.

It is in this area that this Institution, the ICMEESA has a responsibility to proactively represent the interests of the Professional Certificated Engineer. So where is the young blood that needs to continue the process?

#### **Branch Contact Numbers**

Branch activity is the crux of the ICMEESA. Please contact the local branch chairman for information on activity in your area or the main office in Johannesburg on 011-487 1683

<u>Branch</u>	<u>Name</u>	<u>Contact No's</u>
Central	Piet Nieman	011-651 6262
Eastern Cape	Rory M <sup>c</sup> Loughlin	082 461 7223
Freestate	Ian Buchanan	083 388 1678
Klerksdorp	Obed Lethsolo	082 828 7837
Kwa Zulu Natal	Ian Mee	083 653 2983
Mpumalanga	John Miller	082 801 2910
Rustenburg	John Furie	083 455 1693
Western Cape	Chris Schnehage	083 326 8023