

IPET NEWSLETTER

June 2009

The Institute of Professional Engineering Technologists
(Association Not For Gain)

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Editor Viv Nel, Pr Tech Eng.

Tackle a block at a time!

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No 1. ECSA Advertises for a New CEO.

ECSA is in the process of filling the vacancy of Chief Executive Officer. Professor Hu Hanrahan has been acting in this capacity since 12 Jan 2009. The process has been outsourced so please do not contact the ECSA office directly.

The advert appeared in the Sunday Times (17 May) and Mail and Guardian (15 May) and is also published on the ECSA Website (www.ecsa.co.za). For further information please contact: Ms Rene van Wyk at Leaders Unlimited on 011 722 1600 or rvanwyk@leadersunlimited.co.za

No. 2 Engineering Council of SA (ECSA) Annual Fee 2009.

ECSA's fees for 2009 were approved by their Council on the 24th March 2009. The fees are: -
Member of recognised Voluntary Association (VA) (such as IPET) R 1338

#

Non members of recognised VA's R 2188 #

Candidate member of recognised VA

R 574 ##

Candidate non member of recognised VA

R 844 ##

A discount of R 100 VAT inclusive on professional fee will be allowed if payment is received on or before 30 June 2009.

A discount of R 50 VAT inclusive on candidate fees will be allowed if payment is received on or before 30 June 2009.

Application fees;

Direct to professional R 3300

Candidate to professional R 1650

Candidate < 1 year R 330

Candidate > 1 year R 825

Admin fee for reinstating registration due to default payments *Check with ECSA!*

ECSA has posted invoices in April.

It pays to be a member of IPET as the discount for professional's amounts to R 850 !!!!

No 3

IPET Conference Bags.

These are still available.

See the advert at the end of this Newsletter for details.

No 4. Letter from ECSA Finance Manager.

Good day,

Just to let you know that for the coming year ECSA-registered members who are members of ECSA-recognised VA's (voluntary associations) pay a lower annual fee than those who are not members of a recognised VA. Professionals pay R850 less and candidates pay R270 less.

Thank you to those organisations who have sent their membership databases to ECSA for comparison to our database so that we could record the membership in order for those persons to qualify for the lower ECSA annual fee. Some of your databases were unfortunately of such a nature that it was impossible to do an easy check and I do not expect that my staff would have been very successful in being able to match many names to our database.

My staff have done their best, and we have loaded all successful matches on our database. **It will never be perfect, as the matching process is difficult. Please do not jump all over my staff if you receive a complaint from one of your members who have not received the lower ECSA fee. Simply send the confirmation of membership to Kylie or me, and we will effect the change.**

All new registrations at your organisation up to 31 May may claim the lower ECSA fee. These persons would have been charged the full annual fee by ECSA and may contact us for the lower fee if they can submit proof of registration on or before 31 May. Registrations after that date will only qualify for the lower ECSA annual fee in the following year.

Regards

Gerard Schekkerman
Manager Finance
E C S A

Note From IPET Administration.

We have also done our best! So if you experience a problem with discount from ECSA please contact the IPET office, preferably in writing by Fax or E Mail. The quality of messages on our answering service from telephone calls is often poor, especially when members phone on Cell phones and are in a noisy background. Membership numbers must

be quoted in all cases, as it is impossible to check only by surnames and initials as so many people have the same names!

No. 5. ECSA Statistics.

The following number of engineering practitioners were registered with ECSA as at 31 March 2009:

International Professional Engineers	19
Professional Engineers	14474
Candidate Engineers	4330
Professional Technologists	3244
Candidate Technologists	1357
Professional Technicians	1887
Candidate Technicians	1745
Prof Certificated Engineers	998
Candidate Certificated Engineers	184
Reg Lift Inspectors	160
Reg Lifting Machine Inspect	556
Reg Engineering Technicians	936
Reg Eng Technicians(Master)	441
Total	30 331

No. 6. Volunteers to assist ECSA .

The ECSA Technicians Registration Committee is looking for volunteers to assist in the assessment of applications for registration in the following fields:

Instrumentation.

Civil

Mechanical

The workload varies but there are monthly registration committee meetings at which all applicants and assessments are tabled, discussed and finalised. The decisions taken are on the basis of consensus so no one assessor makes the final decision. Persons with the knowledge and experience in the above fields are required to assist the committee.

The volunteers must be registered with ECSA either as Professional Engineers or Technologists. Kindly note that these are voluntary positions so no remuneration is received, however persons who are not receiving a salary or payment for the day of the meeting, such as self employed persons etc, may claim a nominal amount as well as travelling

expenses. Details will be supplied to interested persons. Volunteers to assist with the ECSA accreditation visits to Universities of Technology are also required.

Please advise us by post, fax or E-Mail if you can possibly help or know of persons who can assist in this matter.

No 7. Advert for Popular Mechanics



Popular Mechanics

Get one year of **POPULAR MECHANICS** for just **R187!**

POPULAR MECHANICS invites you as a member of The Chamber of Engineering Technology to share in a monthly feast of science, technology, automotive, outdoors and home improvement features that explain how things work in our ever-changing world.

SAVE 40%

How to Order:

Simply contact us on the contact methods below quoting 09/04/SF/CET

0860-100-205

subs@ramsajmedia.co.za

Only South African residents are eligible for this offer. For foreign residents rates please visit www.magsathome.co.za. The promotion ends 30 June 2009.

You may remember that last year we arranged a really good discount on this magazine through our sister organisation, the Chamber of Engineering Technology, and a number of members took up the offer. We are pleased to advise that we have organised another good deal on this very popular magazine for both the members who took part in last years offer and new members. The discount offered is greater than any advertised anywhere that we are aware of and it is a very good deal in these tight financial times. For those who have not read this magazine of late, don't be fooled it - covers all sorts of engineering, disciplines and science. It is not a motor mechanics magazine but an extremely interesting read covering a wide field. **The offer closes 30 June 2009. See the ad above on how to order! (This year it's direct with the publisher and not via our office as this reduces our administration costs enormously. Members have to pay them direct. IPET &/or CET will not pay for members as this additional benefit is for the members account and not IPET &/or CET)!**

Enjoy!

Editor V Nel



No 8. Past Vice President of the Engineering Council of SA (ECSA) wins an award in the annual National Science Technology Forum (NSTF) awards.

Activities other than research and its outputs over the last five years or less - Robert (Bob) Pullen, Senior Specialist in Water Engineering, BKS Group - for his contribution to the regulation of the engineering professions, to civil engineering and environmental practice.

No 9. ECSA. Cases Against Registered Persons Being Investigated

Prof Engineers – 89
Prof Engineering Technologists – 12
Prof Engineering Technicians – 5
Lift Machinery Inspectors – 2

There are no investigations involving Lift Inspectors.

No 10. Opinion Survey Of The Nature And Extent Of Value Management In The Manufacturing Sector

Dear Fellow Professional

The Department of Construction Economics and Management at the University of Cape Town has embarked on a project to establish the nature and extent of **value management / value engineering (VM / VE) in the manufacturing sector** - as practised by clients, engineers, designers, etc. VM is a management technique for improving client value in projects, products, processes and systems.

Target communities include the following sub-sectors: food and beverages; textiles; paper and paper products; chemical, rubber and plastic products; basic metals, fabricated metal products, machinery and equipment; radio, TV and communication equipment; electrical machinery; transport equipment; furniture and manufacturing; and non-metallic mineral products (e.g., glass and glass products).

We invite you to participate in this survey so that your views can be included in our investigation.

The opinion survey deals with issues such as: demographic information (to provide a contextual background); familiarity with value management; use of value management; and the nature of the use of value management. The questions are topical and relevant to persons involved in VM in the manufacturing sector.

Please record your views by linking to the questionnaire located at the following website. The survey is entirely web-based and the results are captured and processed electronically. The questionnaire can be found at the following website.

<http://webdav.uct.ac.za/research/fews/mft/survey.html>

Please call 021 - 650 3443 if you have any queries.

Kindly complete the survey by Friday 26th June 2009 if at all possible.

Thank you for taking the time and effort to participate in this survey. The results of the survey will be made public once they are analysed.

Paul Bowen

Department of Construction Economics and Management

University of Cape Town

No 11. E Mail About Eskom.

Dear Sir/Madam

Eskom is currently running a survey to establish the availability of retired engineers to do contract work in the near future.

If you are not interested could you kindly send us a blank email as confirmation of receipt (to ensure that you do not get any unwanted calls in the future).

However, if you are interested, we would like to get a few additional details from you in an endeavour to capture accurate information regarding your availability and any other requirements.

Could you give us an indication of the following:

1. Do you have any specific conditions regarding the location in which you work (Jhb / Cape Town etc)?
2. What are your Primary and Secondary Competencies?
3. From when are you available?
4. Until when will you be available?
5. What number of days per week are you available?
6. What is the number of hours, per day, you are willing to work?

We thank you for your time in this regard.

Kindest Regards

Keshni Moonsamy

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As usual he/she does not specify what sort of engineers, but one assumes it refers to Technologists and Technicians as well!! Ed

Note.

*The following mini articles follow the trend of interesting scientific and engineering developments we set in our last newsletter. We hope you find them of general interest!
Ed.*

**No 12. Traffic Markings May Be
Brighter On The Other Side**

A new study done by North Carolina State University shows that painted road markings are significantly better at reflecting headlights in the direction that the paint was applied. This finding may save money on painting their roads. Researchers found that "retroreflectivity values" are higher in the direction of paint striping. "In other words," study co-author Dr. Joe Hummer says, "the paint reflects more light if you are following the painting truck than if you are driving from the other direction." This is a big deal, in part, because approximately 60 percent of the nation's roads are marked with paint, rather than thermoplastics or other materials. Hummer is a professor of civil engineering at the University. His co-authors are fellow professor Dr. William Rasdorf and Ph.D. student Guanghua Zhang. They say if a state can re-paint road markings every three years instead of every two, it will save a lot of money. The difference in retroreflectivity, depending on the direction one is driving, is equivalent to about a year of wear and tear. In other words, a painted line in the road will look one year newer if you are driving in the same direction that the paint was applied. Hummer explains that this happens because glass beads are scattered onto freshly painted traffic markings in order to make them reflective. Because the painting truck is moving, those beads tend to bounce and roll before coming to rest. "The beads skid and build up paint on one side," Hummer says. "Therefore, they are less reflective in that direction." The research was funded through federal aid money for statewide planning and research from the United States of America North Carolina Department of Transportation. The issue is particularly important for North Carolina because over 80 percent of marked roads in the state are marked with paint – significantly higher than the national average. The research was published in the journal *Public Works Management & Policy*.

Adapted from materials provided by North Carolina State University.

Now one wonders what South African Authorities use as the impression is that road markings only last a few months! Ed.

**No 13. Rocket Plasma Thruster that runs
on Inexpensive Gases.**

Satellites orbiting the Earth must occasionally be nudged to stay on the correct path. MIT scientists are developing a new rocket that could make this and other spacecraft manoeuvres much less costly. The new system, called the Mini-Helicon Plasma Thruster, is much smaller than other rockets of its kind and runs on gases that are much less expensive than conventional propellants. It could cut fuel consumption by 10 times that of conventional systems. Currently systems rely on chemical reactions. The new system is non-chemical and uses an external source of electrical energy to accelerate the propellant. The Mini-Helicon is the first rocket to run on nitrogen, the most abundant gas in our atmosphere. The Mini-Helicon has three general parts: a quartz tube wrapped by a coiled antenna, with magnets surrounding both. The gas of interest is pumped into the quartz tube, where radio frequency power transmitted to the gas from the antenna turns the gas into a plasma, or electrically charged gas. The magnets help produce the plasma and confine, guide, and accelerate it through the system. The exhaust velocity is approximately 10 times higher than the velocity from the average chemical rocket. This work was funded by the Air Force Research Laboratory.

Adapted from materials provided by Massachusetts Institute of Technology.

**No 14.
Wood. A Clean and Efficient Energy
Source.**

Can wood become the new Coal? Researchers at the North Carolina State University in the USA have a team working on a new process called torrefaction which is reported as being cleaner and more efficient than coal burning. Coal combustion contributes to the formation of acid rain, air pollution and global warming. In the torrefaction process woodchips go through a torrefier, which is an industrial sized machine similar to an oven that removes moisture and toasts the biomass in a low oxygen environment. The resulting

torrefied wood is lighter in weight, drier and easier to crush. It retains about 80% of the original energy content in one third of the weight. This makes it ideal feedstock for coal burning power plants.

The process is not really new but the universities machine is field transportable and self heated so it can take the process to the wood and not depend on the wood being transported to it. This results in transportation savings.

This could assist areas where coal is shipped in from afar. Small diameter trees, rotten or normally unusable trees can still be used for feedstock. AgriTech Producers, LLC of Columbia, SC, USA have an exclusive license to commercialise the technology, calling it "Carolina Coal."

Adapted from materials originally provided by the North Carolina State University, USA.

No 15 Financial News Gloomy.

Its official, SA is in a recession! The gross domestic product contracted in the first quarter of the year pushing SA into a technical recession for the first time in 17 years. Mainly affected are manufacturers and mines. The GDP fell by 6.4%, the most since 1984 according to Statistics SA. This stops more than 10 years of solid growth. Thousands of workers have lost their jobs and it seems that the official unemployment rate of 24% will soar dramatically.

Maybe the crunch is why only approx 40% of IPET members have paid their IPET membership fee for this year -- so far!

After that sobering and depressing news the next item being the Joke Column hopefully lightens the mood. Ed V Nel.

No 16 The Joke Column.

Warning / Disclaimer.

Sensitive readers are warned that the following may erroneously be taken to contain sex, violence, strong language, gender, race, ethics etc. Readers are warned not to read or have any of the following read to them. Recommended readers age is limited to 120 and 121 years of age. A further requirement is you must have a sense of humour.

Warning seen on TV.

The following program contains the latest numbers from Wall Street. Viewer discretion is advised.

Nobel Prize for Finances.

This year it went to the little old Swiss lady who kept her savings in a Piggy Bank at home and did not put her funds into the banks or financial markets!

Love.

Girl : Do you love me?

Boy : Yes Dear.

Girl : Would you die for me?

Boy : No, mine is undying love.

An elderly man walks into a confessional. The following conversation ensues:

Man : "I am 92 years old, have a wonderful wife of 70 years, many children and grandchildren. Yesterday, I picked up two college girls hitchhiking. We went to a motel, where I had sex with each of them three times."

Priest : " Are you sorry for your sins?"

Man : ""What sins?""

Priest : ""What kind of Catholic are you?""

Man : ""I'm Jewish.""

Priest : ""Why are you telling me all this?""

Man : ""I'm 92 years old ---- I'm telling everybody!!""

Why Some Men Have Dogs and Not Wives.

The later you are, the more excited they are to see you.

A dogs parents never visit.

You never have to wait for a dog.

They are ready to go 24 hours a day.

If a dog smells another dog on you, they don't get mad. They just think it's interesting.

If a dog leaves, it won't take half your stuff!

On the job tests.

At Pepsi the following conversation.

"Your fired, Jack. The lab results just came back, and you tested positive for Coke."

New Job Titles in SA for 2010!

Beggar : Financial Gatherer.

Cleaner : Hygiene Specialist.

Receptionist : Front Office Manager / Office Access Control Specialist.

Messenger : Business Communications Conveyer.

Window Cleaner : Transparent Wall Technician.

Watchman : Theft Prevention and Surveillance Officer.

Driver : Automobile Propulsion Specialist.

Message from your organisation!!

Our print newsletter simply does not contain enough space to provide you with the amount of information that we have and you may need, that's why you should also join us at

www.ipet.co.za where you'll find far more news, articles and information.

No 17. Unsubscribe.

As a member of IPET you should want to receive the E News. If however you do not want to receive the IPET News as an E Mail then you have the option to unsubscribe.

To unsubscribe send an email with ""IPET unsubscribe"" in the text to engineer@netactive.co.za

Number 18.

O. & O. E.

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The Erect IPET Conference Bag.

Compact and light when not in use, these useful expandable bags are approx. 370 X 280 X 85mm. Features include an expandable bottom; two zips compartments in front, a Velcro pocket, which can also be used for a Cell Phone, a number of unzipped pockets and an adjustable strap, which can convert the bag into a backpack. Made of a durable strong canvas material it comes with a carrying handle as well as a shoulder strap. Takes A4 size paper in the main front, rear and central pockets.

Selling price is R120 per bag plus Packing and Postage at R 50 including Insurance.

Overall total cost R170.00. Sold only by mail order. Note Cash, Postal or Money orders are not accepted. Cheques and direct transfer into IPET bank account are accepted. Bank details are Standard Bank Industria, Branch Code 00-50-05 Account No 002440741.

Please send your cheque / copy of proof of payment with your completed order form (below) to;
IPET

**P O Box 1824
Randburg
2125**

Please supply _____ (Quantity) of Conference Bags

Cheque to value of R _____ (attached).

Send to (Name) _____ (Phone No) _____

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