

Chamber of Eng Tech News. Aug 2021

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No 1. News.

CYRIL GAMEDE, PR. ENG LEAVES AN INDELIBLE MARK IN THE ENGINEERING SECTOR

We recently learned with great shock about the passing of the former ECSA President Cyril Vuyani Gamede, Pr. Eng. We offer our condolences to his family and friends.

Mr Gamede was a registered Professional Engineer and served on the ECSA Council as President for two terms with the last term ending November 2020.

Mr Gamede as President of the Council was faced with a mammoth task of providing strategic guidance and repositioning the ECSA brand as an effective regulator, and with his inimitable leadership, Gamede steered the ECSA ship towards great success and solidified ECSA's advisory role to the public sector and industry at large. Furthermore, Mr Gamede pioneered in forging and maintaining relationships between ECSA and its key stakeholders including; Voluntary Associations (VAs), the International Engineering Alliance (IEA) engineering bodies on the African continent, Higher Education Institutions (HEIs) and other key role players within the sector. The passing of Mr Gamede leaves an indelible mark in the engineering sector which he served with passion, dedication and commitment.

Mr Gamede has served on a wide array of industry bodies and structures in the engineering sector including serving as President of the National Society of Black Engineers and President of the Institution of Mechanical Engineers. He has also served as an officer (Captain) at 19 Field Engineer Regiment as part of the South African Army Reserve Force.

No 2. IDENTIFICATION OF ENGINEERING WORK INDUSTRY CONSULTATIONS.

This letter (from ECSA) serves to inform stakeholders including Voluntary Associations (VAs) about the industry consultations, which the Engineering Council of South Africa (ECSA) will be conducting on the gazetted Identification of Engineering Work (IDoEW). The gazette was in March 2021 (Gazette Number 44333, Volume 669, Board Notice 21 of 2021).

The consultation sessions are premised on Section 26 of the Engineering Professions Act, which empowers ECSA to consult with stakeholders that may be affected by any laws regulating the built environment professions regarding the identification of the type of engineering work which may be performed by persons registered in any of the categories referred to in Section 18.

The planned consultation process is geared towards ensuring that all stakeholders are informed about the IDoEW and collaborate with ECSA to assist the engineering sector with compliance through the compilation of fit-for-purpose plans. The IDoEW is premised on the promotion of safety, professionalism and compliance with both the Codes of Conduct for Registered Persons and the Overarching Code of Practice for the Performance of Engineering Work, Government Gazette No. 44333, 26 March 2021.

ECSA would like to invite your Voluntary Association to join in on this journey to ensure that there is compliance with the Identification of Engineering Work. The session with VAs specifically seeks to ensure common understanding of IDoEW content for the purposes of common messaging being cascaded to other industry role players, Registered Persons as well as members of VAs.

The consultation sessions are anticipated to resume in the current financial year (2021/2022) and be concluded in the next financial year (2022/2023). Invitations, in this regard, will be sent out as soon as the exact dates have been finalised.

Our action in this matter that will give all people who work in engineering 3 years to register with ECSA is that COET will partake in an **on line Forum** hosted by our sister organisation, the Institute of Professional Engineering Technologists (IPET). This discussion is scheduled to take place on 25th August 2021 at 12h45.

Ed. Results from this process may be uplifting and /or absolutely disastrous for the country's economy.

"The bureaucracy is expanding to meet the needs of the expanding bureaucracy."

Oscar Wilde

No. 3. Privacy Notification

We wish to advise you that the COET respects your right to privacy.

You have previously opted in to the COET Community by way of a opting in to our mailing list by becoming an COET member or via an event registration, you may however, at any time, choose to change this selection.

COET collects personal information to provide you with communications relating to the COET events, announcements and Member events and vacancies as well as keeping you informed of updates and notifications relating to the professional body and association community.

We confirm that COET will not sell, rent, or share your personal information to unauthorised third parties for their independent use without your consent.

By staying opted in, you will continue to receive communications from us. If you wish to remain on our mailing list then no action is required.

To unsubscribe you can or email us directly at engineer@netactive.co.za

No. 4. ECSA Recognises Computer and Mechatronic Engineering.

Dear Valued Stakeholder,

Following consultations and inputs received from stakeholders on the possible addition of the Computer Engineering and Mechatronic Engineering as disciplines for recognition by the Engineering Council of South Africa, we are pleased to inform you that the process has been finalised and the two disciplines have been added.

The Discipline-specific Training Guides for Engineers, Technologist and Technicians are included on the email and are available on the ECSA website:

<https://www.ecsa.co.za/EcsaDocuments/sitepages/ecsa%20documents.aspx>

Kind Regards,

Mbalenhle Dlamini
Public Relations Officer

No. 5. Reminder; ECSA. CPD Requirements for 2020 Relaxed!

Following an outbreak of the Coronavirus (COVID-19) and the impact of the lockdown in South Africa from March 2020, the Engineering Council of South Africa (ECSA) resolved to relax the Continued Professional Development (CPD) requirements and to exempt all Registered Persons from complying with the requirements for the year 2020.

This exemption is automatic and will be implemented by Council as follows:

All practitioners registered in professional or specified categories will be exempted from obtaining five (5) credits for the year 2020. These credits make up five (5) credits of the twenty five (25) credits for the five (5) year cycle required in order to renew registration(s) and will be distributed amongst the three categories as stipulated below:-
Categories Activity Number of exempted credits: Category 1 Developmental Activities 1, Category 2 Work-based Activities 2, Category 3 Individual Activities 2 (Total 5). In terms of Section 22(1) of the Engineering Professions Act, the Registered Person must still apply in the prescribed manner to Council for the renewal of his or her registration. ECSA would like to wish all Registered Persons good health during these trying times and to express our gratitude for the continued support.

This is a reminder which we published in the April newsletter.

The above is good news for all ECSA registered COET Members.!

No. 6. Adverts.

Systems Thinking provided by Alpha Concepts (Pty) Ltd

Perhaps you have heard of Systems Thinking and are interested in finding out more on this topic, then why not register for the **2 Day online CPD course** registration number SAIIE / CPD / P / 01 / 211 and discover innovative ways to problem solving while you earn 2 CPD development category points.

Alpha Concepts (Pty) Ltd is an accredited CPD service provider registration number: SAIIE / CPD Provider / 02 / 05 / 21 will be delivering the Systems Thinking online course.

Two cohorts are available: Cohort 1: 14-15 August 2021 and Cohort 2: 24-25 November 2021.

The cost per delegate is R 5200 + VAT

More information can be obtained from the course brochure: <https://bit.ly/2UJWq2Z>

Contact: raj@alpha-concepts.com

Cell: +27 (0) 82 894 6253

Fax: +27 (0) 86 771 0290

Web: www.alpha-concepts.com

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CET 288 (1)

OVERHEAD CRANES
CET 308

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MOBILE CRANES
CET 288(1)

VEHICLE LIFTS
CET 309

TOWER CRANES
CET 0301

STORAGE BATTERIES
CET 311

PLEASE CONTACT
CLARENCE BOONZAIER
0832615499
CPD@FORKLIFTTESTING.CO.ZA



7. Snippets.

South Africa has become the first country to register a patent that was created by an AI machine!

S. A. has become the first country to register a patent that was created by an AI machine. The invention was an interlocking food and beverage container formulated on fractal geometry. Commenting on the patent, Dr McLean Sibanda, an expert on intellectual property, has said “this patent has been refused elsewhere in the world where patent applications are subjected to substantive examination before being granted. Main grounds have been that AI is not a natural person and thus cannot be an inventor, and as such cannot duly assign its rights to an invention to anyone to apply for a patent.”

As this case has demonstrated, AI is increasingly assuming a human dimension. It is only logical then that the laws that prescribe that only human agents can acquire patents are reviewed and updated. Australia is another country that recognises a non-human inventor.

This is not the first instance of AI replicating the kind of innovation that has long been considered only a human capability. In 2018, *The Road* was the first novel written by an AI machine.

Ed. Perhaps we could have an AI politician! It probably would see no logic in being corruptible!!

TVET News.

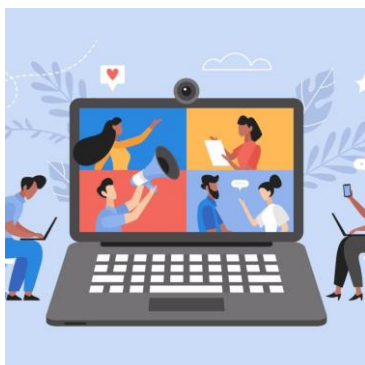
An intervention launched with public technical and vocational education and training (TVET) colleges in the Eastern Cape is expected to aid the output of engineering training and boost the pipeline of skills required by South Africa’s automotive industry.

The intervention will place mechanical and electrical engineering TVET students at host companies for work-integrated learning during their studies and see industry experts providing guest lectures to TVET students, ultimately equipping graduates with the experience that is likely to boost their employment prospects, while also providing value-add to businesses in the province.

The initiative will be implemented by the Automotive Industry Development Centre Eastern Cape (AIDC EC) as part of High Gear, an initiative managed by the International Youth Foundation (IYF) in partnership of the National Association of Automotive Component and Allied Manufacturers (Naacam) and the Department of Higher Education and Training.

High Gear is an initiative funded by the United States Agency for International Development and the Michael & Susan Dell Foundation.

The UK government’s Skills for Prosperity Programme is funding High Gear implementation in KwaZulu-Natal. High Gear’s TVET workplace exposure component will be piloted with National Accredited Technical Education Diploma level 4 to level 6 and National Certificate Vocational level 2 to level 4 engineering lecturers and students at three East Cape Midlands College campuses, beginning with immediate effect.



Virtual On Line High School.

Innovative, quality high school education will be available to all South African learners from January 2022, when the University of Cape Town (UCT) launches its new UCT Online High School.. The virtual high school is a partnership with the Valentre Institute, a South African education technology company specialising in high school education.

The initiative is endorsed by the Western Cape government, and takes advantage of the strides made in online teaching and the ability to scale quality education to reach a broad range of learners in different circumstances.

The development will address the challenges of two South Africa's: one resourced and advantaged, the other under-resourced and disadvantaged. These disadvantages are perpetuated throughout learners' lives, and compound the poverty trap.

The concept had been extensively tested abroad; for example, Stanford University and George Washington University in the Unites States run successful online high schools.

Two offerings, one platform

The first is the UCT Online High School; affordable fees-based education direct to learners' homes, at a monthly cost of R2 095. A special needs division is in the pipeline once the online school has reached a critical mass of 10 000 learners. It seems that those who cannot afford the fee may watch lessons but will not have mentor support.

The UCT Online High School offering includes:

- Grades 8 to 12
- A national Curriculum and Assessment Policy Statement (CAPS)-aligned curriculum, with a broad range of subjects
- 10 subjects in grades 8 and 9, with more added every year
- 14 subjects in grades 10, 11 and 12, with more added annually
- Classes start in 2022. The first Grade 12 intake will occur in 2023.

Ed. This could be a game changer for SA High School learners and the country as a whole!!

Handwriting beats typing and watching videos for learning to read.

Though writing by hand is increasingly being eclipsed by the ease of computers, a new study by Johns Hopkins University finds we shouldn't be so quick to throw away the pencils and paper: handwriting helps people learn certain skills surprisingly faster and significantly better than learning the same material through typing or watching videos.



Medupi power station is now operational. (14 years late)!

The last of six power generation units at the Medupi power station, is now operational, marking the completion of all building activities on the 4.7 GW project.

The last unit was officially declared "commercial" after it went through a process of optimisation, control demonstration and, respectively, a 72-hour and 30-day reliability run.

The first of Medupi's six generation units attained commercial operation status in August 2015.

At the peak of construction, the R135-billion Medupi employed more than 18 000 people on building activities and another 2 000 supporting employees on site.

-
More than 4 600 artisans, technicians, engineers and managers were formally trained by Eskom’s contractors. Eskom says Medupi is the fourth largest coal fired plant, and the largest dry-cooled power station, in the world. Some technical solutions related to boiler design defects on some generation units are still to be completed. The coal fired plant’s sulphur dioxide emissions may still be a problem which will take years to fix. The latest news is that during a maintenance session on unit 4 an explosion occurred. No one has been reported as injured but unit 5 tripped as well due to the explosion. The incident threatens to unravel any progress made by the utility to improve performance and avoid more power cuts. Blackouts through the first half of 2021 were equivalent to about 70% of last year’s unprecedented outages, according to data from the CSIR.

Ed. So the ESKOM saga continues. (SNAFU)!

Robot runs 5 Kms.

Cassie the robot, invented at Oregon State University and produced by Agility Robotics, has made history by traversing 5 kilometres, completing the route in just over 53 minutes. It was developed under the direction of robotics professor Jonathan Hurst with a 16-month, \$1 million grant from the Defence Advanced Research Projects Agency (DARPA). Cassie, the first bipedal robot to use machine learning to control a running gait on outdoor terrain, completed the 5K on Oregon State’s campus untethered and on a single battery charge. Professor Hurst said walking robots will one day be a common sight – much like the automobile, and with a similar impact.



Research suggests fumed silica nanoparticles (FSNs) can be used to help improve the performance of warm mix asphalt (WMA).

Warm mix asphalt (WMA) is gaining attention in the asphalt industry as an eco-friendly and sustainable technology. WMA reduces energy consumption while simultaneously minimizing vapours and greenhouse gas emissions during the production of asphalt mixtures in comparison to conventional asphalt. However, high moisture susceptibility and ageing of asphalt make WMA less durable on the roads.

To address both issues in WMA technology, a team from the Energy Safety Research Institute (ESRI) at Swansea University and Braunschweig Pavement Engineering Centre (ISBS) at the Technical University of Braunschweig have discovered potential for fumed silica nanoparticles (FSNs) to be used as an anti-ageing binder that can not only serve to reduce temperature but also significantly overcome limitations caused by moisture susceptibility.

Left Handers Day!



No. 8. Lost Members.

We have no contact with these members as addresses and E mails etc. are no longer valid. Please check and advise us if you are on the list or if you know of the contact details of any of these persons.

Thanks.

SURNAME	INITIALS	Member No.
Ahmed	I	201112034
Alberts	A	200430324
Allner	BA	2008120196
Basson	LD	8100469
Bennet	DA	201312017
Bester	M	8100030
Bezuidenhout	B	8100473
Blok	C R	8640130
Bonthuys	L J	8740065
Boshoff	P	200230003
Bosley	SR	8100199
Botes	HJ	2008120242
Brits	CJH	200730041
Brown	D V	8740245
Bulter	JOB	201212030
Castle	P J S	8540599
Chapman	E A	9740074
Cranes Complete & Components (Pty) Ltd		8100727
Crous	M	8100250
Cunningham	A J	8100105
Daniels	JD	8100114
Dawood	MH	8100396
De Ridder	J	8640394
Denny	E E	200230126
Deyzel	JG	8100471
Dhooma	I	8940134
Dlamini	LP	201430133
Donaldson	SH	8100595
du Plessis	D J	9840108
Du Plooy	G J	9340070
du Toit	NA	9740085
Durrheim	A J	9140172
Eybers	G	2008120139
Fillis	M	9970051
Fisher	AC	20021103
Flook	J N W	8540523
Fredericks	AP	8100261
Govender	DLA	2009120143
Greef	J	2008120220

Haddath	R S	8000103
Herselman	JF	2008120325
Hinrichsen	CP	201512045
Janse van Nieuwenhuizen	AF	2009120150
Jordaan	NJ	8100711
Khalaki	SI	200320009
Kirchner	EJ	2009120085
Knaggs	W J	200170070
Knop	JW	8100267
Knotzer	N S	8540509
Kunene	M	201112094
Lachenicht	RJ	8100508
Laubscher	P R	201270206
Le Grange	FF	2008120309
Leach	GE	2008120104
Leaman	RO	201630073
Lewis	NC	200040079
Londt	BD	8670151
Luck	AM	2008120290
MacGregor	CR	200130020
Marais	A P J	9640064
Marais	P S	8100336
Matthews	AD	2009120061
Mbanjwa	JP	8100263
McClement	F J	8540768
McGregor	SA	8100150
Meissenheimer	F J	200330116
Meyer	J P	8640079
Mhlana	V	201630046
Moosa	I	8100152
Moukangwe	M	8100393
Mubvuta	C	2020120127
Naidoo	H	2008120232
Nel	S	200211026
Ngcobo	M A	9040021
O'Connor	ML	8100534
Park Lifting & Mining (Pty) Ltd		8100759
Partridge	D	8100737
Phalanowa	JK	8100500
Pieters	C	200230033
Potgieter	JT	8100747
Pratt	SG	8100370
Proudfoot	M L	9470064
Ripepi	GC	2018120014
Roberts	L	200230065
Roberts	ML	8100313

Rolando	A J	9640032
Rosieur	CH	8100309
Rossouw	R	200230209
Roux	JP	201312043
Seiser	H K	200330045
Serfontein	CW	201112059
Sharp	AP	200330287
Sheasby	T C W	8840094
Singh	S D	200040025
Steyn	NL	200330249
Swanepoel	W	9440072
Swart	M	8940110
Tilley	T	201512002
Valentine	C G E	920342
van der Westhuizen	PJ	201212057
van Schalkwyk	D	8940108
Venter	CC	8100445
Vermaak	DS	8100470
Viljoen	NJB	8100241
Viljoen	R	8100545
Wessels	M	9740148
Wicks	M L	200330381
Wimbush	DJ	2007120166
Winter	DJ	200330205
Wortmann	H M	8640381

No. 9. FORUM Talks on Registration with ECSA

This series of presentations done by our sister association IPET gives free guidance and advice on the registration process, the relevant documents and requirements, the various outcomes, the routes and educational requirements.

While it is aimed mainly at Technologists it is still useful for Technicians.

It is usually held over lunchtime every second Wednesday. There have now been 14 presentation sessions starting off with a short talk on practical management followed by the presentations where participants get the basic information and then have any questions, personal or general, answered by qualified ECSA Assessors or Interviewers. There are on average about 25 to 35 participants every Wednesday.

The first few sessions were not recorded, but from session 5 onwards until the latest one, no 14 were recorded.. These recordings as well as the presentations are uploaded onto the **website** <https://professionalecpd.co.za> for free viewing. On the website, click on “View Courses” for these and other material.

Here is the list of presentations:

1. The ECSA Registration Process
2. Broadly defined Engineering Activity
3. Background and Guidelines
4. Mentorship
5. Outcome group A requirements

- 6. Outcome group B requirements
- 7. Outcome group C requirements
- 8. Alternate Route to Registration
- 9. Alternate Route to Registration: Outcomes 1 and 2
- 10. Alternate Route to Registration: Outcomes 3,4,and 5
- 11. Types of Interviews
- 12. Referees
- 13. Filling in the ECSA Forms
- 14. Completion of ECSA Application Forms

Why Register and the tasks of ECSA and the Professional Institutes

No 10.

Unsubscribe Option.

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

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

No 11.

O. & O. E.

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