

Technologists Keep The World Working.

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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.

IPET's action in this matter that will give all people who work in engineering 3 years to register with ECSA is that an **on line Forum** to discuss this 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 IPET respects your right to privacy.

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

IPET collects personal information to provide you with communications relating to the IPET 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 IPET 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 admin@ipet.org.za

No. 4. IPET has an on line CPD site.

IPET and Professional CPD, developed an on-line CPD site, specifically for initiatives of co-hosting seminars and Webinars.

Providers can submit anything from; documents, guidelines, articles, training material etc.

We also have the ability to load pre-recorded webinars onto the site.

(IPET has a You Tube channel where we upload the video material to)

Here is the link to the site for your reference - <https://professionalcpd.co.za>

No. 5. 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. 6. 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 IPET Members.!

No. 7. Advert.

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



8. 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, *1 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.

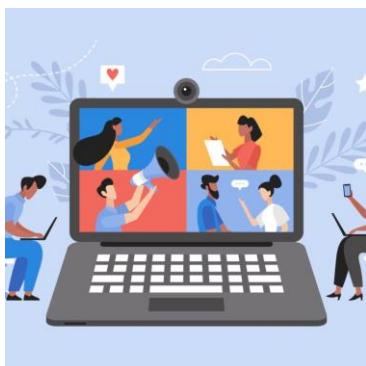
An intervention launched with public technical and vocational education and training (TVET) colleges in the Eastern Cape is expected to aid the output of engineering training and boost the pipeline of skills required by South Africa's automotive industry.

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. 9. 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 people. Thanks.

Members Name	Initials	Mem No.	Grade	Ref No.
Adams	M	3492	M	1153
Akanji	OL	3274	AM	12
Albertyn	NW	3365	GM	14
Amir	M	3036	M	28
Anthony	SK	2868	M	29
Armstrong	MJ	2468	M	32
Aucamp	GS	3692	G	1272
Babi	B	3544	M	1208
Ballim	MO	3289	GM	46
Basdew	A	3468	GM	59

Bettesworth	N	3356	GM	83
Bloem	A		G	1233
Bondelo	AA	3369	G	1251
Boodhoo	P	2180	GM	99
Botha	J C	2749	M	128
Britz	R M	3801	M	1301
Buckley	LC	3102	GM	159
Buthelezi	T	3010	M	167
Chauque	I	3533	GM	1196
Chidavaenzi	NN	3494	GM	1155
Chobeka	T	3385	G	181
Coetzee	HCB	2670	GM	194
Coetzee	OJ	1080	M	192
Cornelissen	L	3685	M	1263
Cornelius	PJP	1992	M	202
Daly	JJ	3115	GM	215
Dlamini	ML	2378	GM	258
Doran	JA	1434	M	265
Du Plessis	F J	2416	M	273
Du Preez	PJ	2595	M	279
Du Toit	SJ	2645	M	283
Erasmus	J	3405	M	302
Erasmus	CH	3198	GM	300
Fernandes	NR	3209	GM	311
Fortune	M A	2849	M	317
Gamoo	L	3286	M	330
Goosen	EM	2492	M	341
Groenewald	EM	3188	M	363
Hadebe	SP	3414	GM	369
Hartzenberg	CR	2860	M	381
Hawes	E	3426	M	383
Haywood	WJ	924	M	385
Hellens	MC	3528	M	1191
Huber	KJ	2806	M	407
Ilunga	M	3297	AM	418
Jacobs	FJ	2899	M	421
James	W	3413	M	426
Jansen Van Vuuren	JG	2454	M	436
Japani	P	3521	M	1184
Jardine	RB	2912	GM	439
Jeewan	NS	3146	GM	441
Julius	WC	3435	G	460
Juries	L	3431	GM	461
Kasselmann	CW	3456	G	468
Kaudani	S	3447	GM	469
Keyser	AC	3229	M	475

Khan	A	2654	M	478
Khuzwayo	BP	3340	M	484
Koloi	K W	2895	GM	496
Lawson	DO	2970	M	521
Lazarus	SJ	2541	GM	523
Lebea	N M	3366	M	533
Letsoale	TH	3481	GM	1143
Lishivha	TP	3351	M	549
Louw	D	2640	M	557
Mabunda	MS	3176	GM	566
Maeketsi	M	3472	GM	574
Maemu	NM	3473	G	575
Malete	TI	3455	GM	591
Mali	P	2863	M	592
Mamoleka	MB	3171	M	594
Mangray	A	3280	M	597
Maree	FS	3506	GM	1168
Maritz	FG	3253	GM	608
Mashele	L	3697	M	1277
Mchunu	B	3453	GM	630
Mkhatshane	NA	3687	M	1266
Mkhwanazi	NC	3517	GM	1180
Mngoma	SS	3098	M	656
Mofokeng	MTA	3429	GM	659
Mogolola	PST	3348	M	1285
Mothapo	MT	3436	M	683
Mphahle	C	3682	M	1260
Mvula	T	3051	M	712
Naidoo	L	2903	GM	717
Nair	R	3442	GM	722
Nandlal	A	3179	GM	725
Ndlovu	M	3241	GM	730
Nduku	MN	2648	GM	731
Nel	KE	830	M	736
Nell	RJ	2853	M	741
Nenzhelele	R	3813	M	1314
Ngcongo	SI	3493	GM	1154
Ngqangweni	BW	1973	GM	746
Nkhoesa	M	3532	GM	1195
Nkonki	LL	2695	M	752
Nkosi	NM	3360	M	753
Ntanjana	A	3330	GM	759
Nyambi	E A	3418	M	766
Phooko	SJ	2618	M	799
Pietersen	EA	1991	M	807
Poolo	A M	3556	G	1230
Pretorius	S	3399	GM	823

Ramaano	M	3507	GM	1169
Relou	R	3540	GM	1203
Rohlandt	G	3035	GM	856
Roos	R	3445	GM	859
Ruiter	GD	3508	GM	1178
Ruthenavelu	R	3283	M	865
Sekoboto	M	3362	M	1204
Shabangu	TH	3537	GM	1200
Smith	DD	917	M	922
Sowden	RJ	3477	GM	1135
Steyn	KH	3437	M	948
Stuurman	CP	3147	M	959
Swart	A	3439	GM	964
Swiegelaar	J	3464	GM	967
Thakurdin	R	3167	M	986
Thizwikoni	T	3499	GM	1160
Titus	DJ	3408	GM	999
Tlaamela	GD	3416	GM	1000
Twantwa	M	3104	GM	1009
van der Merwe	PS	2976	GM	1025
van Wyk	SFM	2476	M	1057
Willemse	MJ	3151	M	1107
Williams	TD	3247	M	1110
Zondi	H	3564	G	1234

No. 10. IPET Mentoring Forum.

We created a new forum specifically aimed to fulfil the mentoring needs of engineering graduates. It aims to be a forum for discussion of career needs where advice is asked, problems discussed and advice given. Any person in engineering, young or old, can be a member; we will need many older members who are willing to give advice to join. In time one to one mentoring relationships could form.

There seems to be a real need for such a group since within the first hour or two of it being created, more than 30 people joined by using the invite link, and the first posting aimed at inviting discussion, was made.

Here is the link to join:

https://t.me/joinchat/vGZik-IFt_diZTRk

You need to download the Telegram App if you don't have it on your phone.

The group is on Telegram since WhatsApp has a limit of 257 members. on Telegram the sky is the limit for the number of members.

Only if you have quires on this contact Mr de Koker at 073 336 2471; But please do not bother him with unneeded enquiries. As a volunteer he has only limited time available! Please be considerate! Thanks for your co-operation.

No. 11. IPET FORUM Talks on Registration with ECSA

We started this series of presentations in September last year, giving free guidance and advice on the registration process, the relevant documents and requirements, the various outcomes, the routes and educational requirements. It is usually held over lunchtime every second Wednesday. We have now had 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 we recorded from session 5 onwards until the latest one, no 14. These recordings as well as the presentations are uploaded onto the **website <https://professionalcpd.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

Part 12

Unsubscribe Option.

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

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

Part 13.

O. & O. E.

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