

CONFERENCE FEES

REGISTRATION FEE RANGES FROM R2 600 (US\$170) to R4 000 (US\$285)

Full Conference fee _____ R4 000
Full Industrial visit fee _____ R 300

THE FOLLOWING DISCOUNTS APPLY FOR AMEU, SESSA, SAIEE, SAAE, BESCO, SMES, SAIRAC, SALGA OR IEEE MEMBERS _____ 10%

Presenting Authors _____ 10%

Full time academics _____ 20%

OR Full time students _____ 20%

Early Bird (if paid before 1 March) _____ net fee less 10%

*Multiple discounts are applied successively, not additively.
Limited funds are available for the registration fees of deserving delegates in financial need.*

CONFERENCE FEES ARE PAYABLE BEFORE OR ON 4 MARCH 2017

ACCOMMODATION

THE TOWNHOUSE HOTEL, 60 Corporation Street, Cape Town which is within walking distance from the conferences venue (about 850m) See <https://goo.gl/maps/T5CAA7qM7st> for directions.

RATES: R1705 including breakfast

Book with Danine Harmsen
TEL 021 465 3891 EMAIL: Danine@townhouse.co.za
mentioning that you are attending the DUE conference.
www.townhouse.co.za

For alternative accommodation contact

THE BEST WESTERN CAPE SUITES HOTEL, a hotel on campus which is partially occupied by CPUT students.

RATES: R1200 per day

To book mention DUE Conference
TEL: +27 +21 461 0727 E-MAIL: reservations@capesuites.co.za
Information: www.capesuites.co.za

For information/booking at guesthouses, B&Bs and self-catering accommodation visit:
<http://southafrica.Bedandbreakfasts.net/301/DUE.asp>

DAY TRIPS AND TOURS

For day trips and tours, contact
CAPE TOWN TOURISM
TEL: +27 (0) 21 4876800 FAX: +27 (0) 21 4876859
E-MAIL: capetown@tourismcapetown.co.za

26TH DOMESTIC USE OF ENERGY CONFERENCE

MEMBERS OF THE ORGANISING COMMITTEE

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Ben Groenewald CPUT

Nico Beute CPUT, IEEE and SAIEE

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Johan Vermeulen University of Stellenbosch

JOINTLY ORGANISED BY

Institute of Electrical and Electronic Engineering (SA Section)

SA Institute of Refrigeration and Air-conditioning (SAIRAC)

SA Renewable Energy Technology Centre (SARETEC)

The South African Institute of Electrical Engineers (SAIEE)

Association of Municipal Electrical Undertakings (AMEU)

Cape Peninsula University of Technology (CPUT)

The Hague Univ. of Applied Science

University of Stellenbosch (US)

University of Cape Town (UCT)

North West University (NWU)

City of Cape Town

IEEE
South African Section



ATTENDANCE

Persons wishing to attend or present a paper at the conference, or participate at a workshop, should **register on our website:** <http://energyuse.org.za>

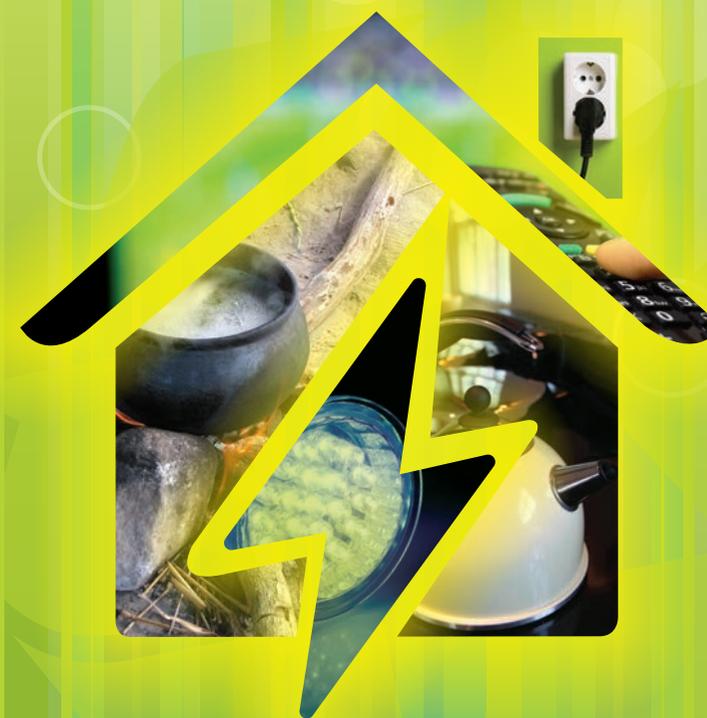
The organisers can be contacted at
Domestic Use of Energy Secretariat

Tel +27 21 959 4330 Fax +27 86 778 0257 Email DUE@cput.ac.za

26TH INTERNATIONAL CONFERENCE

TOWARDS SUSTAINABLE ENERGY SOLUTIONS FOR THE DEVELOPING WORLD

DOMESTIC USE OF ENERGY



3 TO 5 APRIL 2018

CAPE TOWN CAMPUS

CAPE PENINSULA UNIVERSITY OF TECHNOLOGY

CAPE TOWN SOUTH AFRICA

ENERGY IS LIFE!

In 2014, South Africa suffered from load shedding. Demand exceeded supply. So large areas were cut off from energy for a few hours each day. The impact on our production was immense, and ordinary lives were disrupted. It was estimated that the cost of unserved energy was about R80 per kWh.

We recovered slowly. Diesel generators were installed in critical areas. Supply has increased to the point where there is excess generation capacity even without allowing for the standby installations. Today, the cost of unserved energy is about R8/kWh. This is basically the direct cost of running the diesels for a few hours a year. The investment in capital used to buy the generators has been written off. So we have returned to that happy state where we take a constant supply of power for granted. Life is back to "normal". Are our memories so short? Is a reliable power supply truly a normal condition? There are many parts of the world where it isn't. In some parts of Nigeria, for instance, at least one light is always switched on. That way, you can tell when supply resumes. So we need constantly to remind ourselves that having a constant energy supply is a huge privilege. Can we remember when escalators suddenly stopped; when supermarkets went dark; when we tried to recharge our cell phones and had to wait a few hours for the power to come back on?

So DUE 2018 is a celebration of the joys of having reliable power on tap. And that power is cheap. Eskom may be vilified for its cost increases, when it should be praised for supplying at one-tenth of the diesel-generator alternative. But isn't renewable energy cheaper? It is, but it is not reliable – the sun only shines by day; and sometimes the wind doesn't blow for two weeks. As our load-shedding taught us, reliable power is essential.

When we lost power, we were suddenly made aware of the extent to which we used energy in every part of our daily lives. And the list of what we can do grows daily. Lighting, for instance, has become so efficient that we can use it in all manner of novel ways and all manner of new designs. The car industry is being revolutionized, and there is growing excitement about autonomous vehicles. More thermally efficient homes are being built, which makes climate control far more affordable. The electric razor gives as good a shave as any blade ever did, and far more conveniently. The food processor is ubiquitous in the kitchen. The ways in which energy eases our lives, and gives us more time for what is really important, are endless.

Come to DUE 2018. Tell us how you are benefiting from the secure power supply we enjoy. Draw attention to things which still need to be done. And enjoy Cape Town at the finest time of the year!

SUBMISSION OF PAPERS

IF YOU WOULD LIKE TO PRESENT A PAPER FOR THE PROCEEDINGS:

- Go to the website <http://energyuse.org.za/due>
- Download the registration form and complete it
- Download the paper template and use it for drafting a title for your paper and writing an abstract of 200±20 words
- Go to the website <http://energyuse.org.za/due>, and follow the instructions under "Submission" at the top of the page
- As soon as possible, and by the latest 2 January 2018, send the registration form to due@cput.ac.za

GETTING READY

- Within a week we will let you know if the editors feel your proposal deserves a paper
- Go to the website <http://energyuse.org.za/due>
- Download the paper template.
- Prepare the paper according to the template's directions
- Go to the website <http://energyuse.org.za/due>, and follow the instructions under "Submission" at the top of the page
- We should receive the paper not later than 2 February 2018

AND THEN?

- We will send the paper to 3 referees
- Within 4 weeks of your paper submission we will send you either an acceptance letter or the reviewers' comments and ask you to address them within 5 days and resubmit your paper
- We will prepare the proceedings for printing from 2 March 2018
- We will send the proceedings for printing on 15 March 2018
- You should have a Powerpoint presentation of your paper ready when you arrive at the conference

PROGRAMME

TUE 3 APRIL

- 12h00 - 14h00 _____ Registration
- 09h00 - 14h00 _____ Technical visit
- 14h00 - 17h00 _____ Opening of conference & keynote addresses
- 17h30 - 19h00 _____ Cocktails, Meet and Greet

WED 4 APRIL

- 09h00 - 17h00 _____ Conference presentations
- 18h00 _____ Conference dinner

THURS 5 APRIL

- 09h00 - 13h00 _____ Conference presentations
- 13h00 - 14h00 _____ Lunch; best paper presentation; & closing of conference

CONFERENCE TOPICS

- ⚡ How access to energy improves lives
- ⚡ Delivering energy reliably on demand
- ⚡ Using energy efficiently
- ⚡ Electrification, mini-grids and smart grids
- ⚡ Electric mobility – bicycles, cars, LDV's and minibuses
- ⚡ Modern lighting
- ⚡ Energy efficient housing, air conditioning and heat pumps
- ⚡ Energy theft

WORKSHOP ON ELECTRIC MOBILITY

As the prices of batteries fall and their power density increases, so electric vehicles meeting commuter demands are becoming more affordable. Some forecast the death of the internal combustion engine within a few years. However, widespread use of electric-powered vehicles will enforce considerable growth in the power generation, transmission and distribution systems, and the abandonment of the huge infrastructure needed to produce and distribute liquid fuels.

Topics to be discussed will include:

- Fully electric vs hybrid vehicles
- Charging rates vs the distribution of charging points
- The ownership of charging systems – public vs private
- The change in the emission of greenhouse gases
- The economics of a shrinking liquid-fuels business
- Job losses in vehicle maintenance

EXHIBITORS

Companies interested in exhibiting at the Conference should contact the Secretariat at due@cput.ac.za. Space will be allocated on a first come, first served basis.

CONTINUOUS PROFESSIONAL DEVELOPMENT (CPD)

Attendance qualifies for two CPD points with ECSA for professional registration.