

South African Renewable Energy Technology Centre SARETEC | CPUT Bellville Campus

23-25 NOVEMBER 2026

BIOGAS TRAINING WORKSHOP 2.0

**3 DAY
WORKSHOP**
with site visits
on Day 3
Hybrid

One of the key reasons that biogas technology has not been widely adopted in South Africa is the lack of understanding around the technology.

With so many different technology choices, uses of gas, uses of slurry, feedstock, risk, legislation and a list of other unknowns, it is very difficult for individuals and organisations to engage with this potentially exciting technology.

To help with engagement, SABIA, in conjunction with CPUT, is pleased to offer the following three-day workshop. The workshop is interactive and run by Gordon Ayres, who is Secretary General of SABIA with over 15 years of experience in biogas in Southern Africa. The workshop is designed to give real, practical answers to individuals and companies wanting to engage and understand the biogas space.

Examples of topics that will be covered includes, but are not limited to:

DAY 1

- What is biogas, and is it for me?
- How to use biogas in my business, costs and models
- Installing, starting and running a biogas system
- Legislation and local municipality engagement
- Risks and challenges
- Biogas technology & digester biology

DAY 2

- Scoping a biogas project
- Income streams from a biogas project, savings and income
- Challenges around biogas technology
- Upgrading of biogas – New technical advancements
- Operation of a biogas plant under South African conditions

DAY 3

- Site visits
- Cape Biogas upgrading facility
- Elgin Fruit biogas system
- CPUT test site winery waste unit

Don't
miss your
chance
to stay
updated
and
improve
your biogas
yield.

**EARLY
BIRD
RATE**

-20%

R5400

**INSTEAD OF R6500 (In-person)
R4000 INSTEAD OF R5000 (Online)**

**Early bird registration and
payment until 18 September 2026**

ONLINE REGISTRATION AND PAYMENT

Ideal for:

- Existing and future owners/operators of biogas plants
- Local organisations
- Institutions
- Investors looking for a practical and realistic debate

During this event, you will get in touch with senior experts of the South African Biogas Industry and benefit from their substantial long-term practical and theoretical experience.

INCLUDED

- Presentations and tour documentation
- Certificate of participation
- Lunch and beverages during the course
- Excursions and entrance fees

NOT INCLUDED

- Travel to and from Cape Town
- Accommodation
- Further meals and beverages
- Personal insurance

Contact us for additional event or venue information

email okudohv@cput.ac.za or secretary@sabia.org.za

Draft Programme 2nd CPUT-SABIA Agro-industrial Biogas Training Seminar and Study Tour 23rd – 25th of November 2026

Venue: SARETEC, Cape Peninsula University of Technology

Monday, 23 rd November 2026		CPUT-SABIA
9:00 – 12:30	Part 1: Welcome to the seminar - Introduction of the seminar participants and experts - Expectations from the seminar - Collection of the first questions	PROF JOSEPH KIOKO (Dean Applied Sciences, CPUT) PROF VERUSCHA FESTER (Assistant Dean, Engineering, CPUT) PROF VINCENT OKUDOH (Convener, CPUT)
(10:30 – 11:00 Coffee Break)	Part 2: Status quo of the biogas sector development in South Africa as well as the way forward - What is biogas, and is it for me? - Potentials and prospects - Status of waste legislation (2030 no waste to landfills) - Status and market opportunities in SA - Economic framework conditions - Data for waste arising and composition	MR GORDON AYRES (Secretary General, Southern Africa Biogas Industry Association (SABIA))

	Part 3: Finance and Valuations of Biogas Plants • How can I finance my Biogas Plant project? • Potentials and prospects for securing Business Loans • Banking, credit, investments, and assets in Biogas finance • Key aspects involving investing, borrowing, budgeting, saving, and forecasting, • Aiming to optimize financial health and maximize value through risk management and strategic allocation of funds	GREG ELK (Partner and Head of Corporate Finance and Valuations, AGILEQUITY)
	Part 4: General introduction into biogas technology & digester biology • Microbiology of Anaerobic Digestion (Prof VI Okudoh) • Basic principles of process technology • Temperature, retention time, organic loading rate • Operating experiences from 8000 agro-industrial biogas plants • Conditions for the generation of biogas, • Operating parameters • Process monitoring and task management • Process disturbances and failures	PROF OKUDOH, WASTE2ENERGYLAB (W2EL), CPUT MR GORDON AYRES , SABIA
12.30 – 13:30	Lunch	
13:30 – 17:00	Part 5: Different technologies and components of biogas plants • Wet and dry fermentation plants • Agricultural and bio-waste digestion biogas plants • Treatment of industrial effluents • Experiences with investment and operation Developments and adaptations of the technology	DR THELMA LOUW (Commercial Manager, CAPE TOWN BIOGAS)
15.30 – 16:00 (Coffee Break)	Part 6: Introduction of the main components of a biogas plant • Digester types and installation technology • Process and feed in technology • Developments and adaptations of the technology to suit the local circumstances in South Africa	MR KONDWANI BANDA (Project Manager, Bio2Watt and Board Member of SABIA)

	Part 7: Experiences with biogas plant equipment in South Africa • Risks and challenges with biogas plants (Agama) • Installing, starting and running a biogas system • Pumps, mixers, compressors, pipes • Measurements: temperature, flow, pressure • Digester types and installation technology • Process and feed in technology	MR GORDON AYRES, SABIA
19:00 – 22:00	Part 8: Meet and Greet (optional): Cocktail dinner at CPUT Hotel School, Granger Bay Campus, at own expense	Network, Meet and Greet (Optional)

Part 4: Basic engineering parameters for the operation of a biogas plant with different substrates

- Basic principles of process technology
- Temperature, retention time, organic loading rate
- Operating experiences from 8000 agro-industrial biogas plants
- Conditions for the generation of biogas

MR MICHAEL KOETTNER, IBBK GERMANY

	• Process failures and trouble shooting • Challenges around biogas technology	
12:30 – 13:30	Lunch	
13:30 – 17:00	Part 5: Start-up phase and practical measures for monitoring the digestion process • Initial phase: Seeding, heating and start of the feeding • Daily monitoring, maintenance and testing parameters during operation • Practical devices for on-site monitoring (FOS/TAC, pH, gas analysis)	MR MICHAEL KOETTNER, IBBK GERMANY
(15.30 – 16:00 Coffee Break)	Part 7: Proper usage of digestate as organic fertilizer • Simple concepts for South African conditions • Management and field application • Digestate processing • Fiber and fertilizer production	MR GORDON AYRES, SABIA
	Part 6: Safety and environmental legislation in SA • Definitions: explosive zones, distances, materials • Choosing technical equipment under safety aspects • Technical and designing failures • Conclusion	MR GORDON AYRES, SABIA

Wednesday, 25th November 2026		
08:15 – 8.50	Morning Tea	Vote of Thanks (Prof Maggie Chetty, HOD, Chem Eng., CPUT)
09:00 - 10:00	Review of Training with Questions and Answers	Microsoft Forms Feedback Survey (Ms Mulalo Mudau, PhD Student, CPUT)
10:15 – 10:45	Handout of Gifts and Certificates	Prof Vincent Okudoh, Mr Gordon Ayres and Michael Koettner
12:30 – 13:45	Part 1: Visit of Biogas Plant • Talk to operator and analyse his practical operation • Discuss trouble shooting needs at the plant	Cape Town Biogas (Old New Horizon) Athlone facility
13:00	Lunch Break	Lunch pack handed over in the bus
14:30 – 15:30	Part 2: CPUT-ARC Biogas Pilot Plant • Talk to operator and analyse his practical operation • Discuss trouble shooting needs at the site	CPUT-ARC Biogas Pilot Plant
16:00	End of the study tour and seminar	Final Networking Tea at SARETEC

Programme may be subject to change