



CENTRE FOR RENEWABLE &  
SUSTAINABLE ENERGY STUDIES

# Renewable Energy Systems

**Date:** 1 – 5 March 2021

**Venue:** Sustainability Institute, Lynedoch, Stellenbosch  
33°58'56.7"S 18°46'07.4"E

**Registration:** [Link to be confirmed](#)

**Course fees:** R11 800

**Presenter:** **Mr Carl Tshamala** joined the Department of Mechanical and Mechatronic Engineering and the Centre for Renewable and Sustainable Energy Studies (CRSES) in 2014, having previously held positions at CPUT in Mechanical and Mechatronic departments, Mutanda Mines and Bazano Group (DRC). He holds a Bachelor Degree in Electro-Mechanical Engineering from the University of Lubumbashi and a Master of Science in Mechanical Engineering from the Stellenbosch University and is currently busy with his PhD on industrial hybrid dry/wet cooling systems. His research interests cuts across a range of applications in the field of applied thermodynamics, fluids mechanics and heat transfer with strong inclination towards energy systems and power systems performances. Recently, he has been interested in solar powered atmospheric water generation systems development.



## Synopsis

This course forms the foundation of the various modules in Renewable and Sustainable Energy Studies. It addresses the scientific, engineering and resource aspects of various types of renewable energy systems, and the integration of systems to provide effective and sustainable production and delivery of energy.

Course participants will be exposed to an introductory level of technical insight into the various renewable energy production, storage and transmission systems, and will apply the knowledge in a project-based learning experience. The main themes will include:

- Basic Concepts of Mechanics, Energy, Heat Transfer, Thermodynamics and Electricity related to renewable energy technologies;
- Introduction to Renewable Energy Technologies:
- Solar Thermal Energy
- Solar PV Technology
- Geothermal Energy
- Bioenergy
- Wind Energy
- Hydropower
- Renewable Energy Storage and Transmission
- Case studies of renewable energy systems.

## Who should attend

Engineers, technologists and technicians active in the energy sector. Architects, planners and developers. Government and local authority officials. Investors.

## Certification and Accreditation

The module has been registered with the Engineering Council of South Africa for 4 Continuous Professional Development points. A Certificate of Attendance will be awarded to all participants who attend the full course.

## Venue and Time

This course will be presented at the Sustainability Institute, Baden Powell Drive, Lynedoch, and will run Mo-Fri, 1 – 5 March 2021 from 08:00 to 18:00.

Directions can be obtained from: [www.sustainabilityinstitute.net](http://www.sustainabilityinstitute.net).

## Travel and Accommodation

Accommodation and travel are for your own account. The Stellenbosch Information Bureau can be contacted at tel. 021-883 3584 for delegates who want to make their own accommodation arrangements. A list of available accommodation can also be obtained from [crses@sun.ac.za](mailto:crses@sun.ac.za)

## Registration

The course is designed for a restricted number of attendees so as to personalize and maximize the learning experience. Bookings will be taken on a first come first served basis.

**Registration close: 10 February 2020**

## Course Fees

- Cancellations made up to and including 15 February 2021 will be subject to a 15% handling fee. No refunds will be made after this date; however, substitutions will be accepted.
- Payment is mandatory for attendance.
- In the case of unforeseen circumstances, Stellenbosch University reserves the right to cancel the course or change the lecturer, in which case all fees will be reimbursed in full, on request.
- The course fee includes all study material, tea/coffee, and lunch.

Faculty of Engineering  
Private Bag x1; Matieland, 7602  
South Africa

Tel: +27 (0) 21 808 4069  
Fax / Faks: +27 (0) 21 883 8513

[crses@sun.ac.za](mailto:crses@sun.ac.za)

<http://www.crses.sun.ac.za>