

Renewable Energy Systems

(Certificate of Attendance)

18-23 February 2019 Sustainability Institute, Lynedoch, Stellenbosch

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
 - o Geothermal Energy
 - o Bioenergy
 - Wind Energy
 - o Hydropower
- Renewable Energy Storage and Transmission
- Case studies of renewable energy systems.

No academic credits can be obtained through this course.

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 Continuous Professional Development points. A Certificate of Attendance with an indication of the CPD points and level will be awarded to all participants <u>who attend the full course</u> <u>from Monday morning to Saturday lunchtime</u>.

Venue and Time

This course will be presented at the Sustainability Institute, BadenPowell Drive, Lynedoch and will run from Mon-Fri 18 – 22February, 08:00 – 17:00 and Sat, 23 Fabruary 2019 from 08:00 to13:00.Directions can be obtained from:www.sustainabilityinstitute.net.

Travel and accommodation

All travel arrangements are for your own account. Call the Stellenbosch Information Bureau on 021 883 3584 for accommodation near the university. You can request a list of available guesthouses from <u>crses@sun.ac.za</u>.

Registration

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

Click HERE to register online

No registration is final until you have received a confirmation by email from Stellenbosch University.

Registrations close on Monday 11 February 2019.

Course Fees

- Course fee for the five and a half-day course: R10 800
- Cancellation of enrolment made up to and including 4 February 2019 will be subject to a 15% handling fee. No refunds will be made after this date; however, substitutions will be accepted.
- Attendance without payment will not be permitted
- 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 and tea/coffee and lunches.

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.



Centre for Renewable and Sustainable Energy Studies





Faculty of Engineering

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