Renewable Energy Systems

(Certificate of Attendance)

19-24 February 2018
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
  - Geothermal Energy
  - Bioenergy
  - Wind Energy
  - 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 who attend the full course from Monday morning to Saturday lunchtime.

Venue and Time

This course will be presented at the Sustainability Institute, Baden Powell Drive, Lynedoch and will run from Mon-Fri 19 – 23 Februury, 08:00 – 17:00 and Sat, 24 February 2018 from 08:00 to 13:00. Directions can be obtained from: www.sustainabilityinstitute.net.

Travel and Accommodation

Limit accommodation is available at the Sustainability Institute's guesthouse on a full-board basis. This excludes transportation to and from the airport which is for you own account. Please contact the guesthouse at 021 881 3196 or hospitality.si@sustainabilityinstitute.net for reservations. The Stellenbosch Information Bureau can be contacted at tel. 021-883 3584 for delegates who want to make their own accommodation arrangements

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.

Registration must be carried out online at:

http://apps.sun.ac.za/SCD/ApplicationForm.aspx?scourseid=1911

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

Registrations close on Friday 2 February 2018.

Course Fees

- Course fee for the five and a half-day course: R10 500
- **Cancellation of enrolment made up to and including 2 February 2018 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

Prof Nawaz Mahomed joined the Department of Mechanical and Mechatronic Engineering and the Centre for Renewable and Sustainable Energy Studies (CRSES) in 2015, having previously held positions at CSIR, Department of Science & Technology, Armscor Institute for Maritime Technology and CPUT. He holds degrees in Mechanical Engineering from the University of Cape Town and a PhD in Mechanics from the Polish Academy of Sciences. His research interests cuts across a range of applications in the field of mechanics of high viscous flows and heat transfer. He has worked on the development of dye-sensitised solar cells employing flexible substrates, modelling and simulation of the behaviour of metallic thin films used in PV technology, and optimisation of hydropower systems. During 2011-14, as Dean of the Faculty of Engineering at CPUT, he jointly led the development of the SA Renewable Energy Technology Centre (SARETEC) in cooperation with CRSES. During this period, he also facilitated cooperation partnerships in renewable energy, which included technology projects for sustainable livelihoods and the localisation of renewable energy technologies. He is currently involved in two European funded projects on the "Development of a Hamonised Modular Curriculum for the Smart Grid (DAMOC / ASGEN)" and "Academic Initiative for Renewables (AIR)".

Centre for Renewable and Sustainable Energy Studies

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
www.crses.sun.ac.za