



CENTRE FOR RENEWABLE &  
SUSTAINABLE ENERGY STUDIES

# Wind Energy

**DATE** 04 – 08 July 2022

**VENUE** Engineering Faculty, Stellenbosch University

**ACCREDITATION** Certificate of attendance (4 CPD points) [REGISTER HERE](#)  
Certificate of competence (4 CPD points) [REGISTER HERE](#)  
15 academic credits at NQF 8 or 9 level [READ MORE](#)

**DEADLINE** Certificate course registration closes 14 calendar days before the course starts. The number of attendees is limited. Bookings will be taken on a first come, first served basis. For academic module registration deadlines, please contact the relevant academic programme coordinator.



## MAIN PRESENTER

**Dr Gareth Erfort** is a lecturer at the Mechanical and Mechatronic Engineering department of Stellenbosch University. He previously worked for CSIR and spent 2 years abroad working on international civil engineering projects. He completed his PhD thesis on in Vertical Axis Wind Turbines, utilising CFD and genetic algorithms





## Synopsis

This module deals with the harvesting of energy from wind and water. It addresses the availability of the resources, the types of systems and machines, their capabilities and limitations, the processes of setting up such systems, and their associated costs and environmental impacts. The main elements of the course are listed below:

- Wind power: Brief history, current state of industry and industry drivers.
- Predominant technologies, theory of operation, electromechanical and aerodynamic principles.
- Fundamentals of power quality and grid integration.
- Wind energy facility development process and methodologies, including wind resource assessment.
- Feasibility factors such as energy capture calculation, environmental impact assessment, grid studies and essential economics

## Qualification and accreditation

The module is accredited for a variety of outcomes, depending on what the attendee registers for. Module contact time (40 hours) are shared by all attendees, but additional assessments, assignments, and projects will be specific to the outcome that the attendee registered for.

- The module is accredited for ECSA Continuous Professional Development (CPD) credits, and attendees can obtain a certificate of attendance (if all lectures have been attended) or competence (if all lectures have been attended and various assessments have been successfully passed).
- The module is also accredited for 15 academic credits at both NQF8 level (Post-graduate diploma) and NQF9 level (Masters), as part of various [academic programmes](#). This requires a total time investment of 150 hours.

## Delivery Model

- The module will be delivered over five days. Pre- and post-module assignments and projects are applicable depending on the outcome the attendee registered for.
- A blended classroom/online model will be followed, with students being offered the options to attend in person (covid dependent), online only, or a mixture of these.

## Who should attend

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

## Travel and Accommodation

All travel and accommodation arrangements are the attendee's own responsibility.

## Prerequisites

**Certificate of attendance:** none

**Certificate of competence / Post-graduate diploma at NQF8:** NQF7 engineering qualification

**Masters at NQF9:** NQF8 engineering qualification

**IT infrastructure:** For online attendees, adequate internet connectivity to connect reliably via Teams for the duration of the module. For Certificate of competence, Diploma and Masters attendees, a computer capable of running Windows 10 with user rights to install new software.

## Module Fees

- The standard fee for the five-day module is:
- **R12 000 for a certificate of attendance**, and
- **R14 000 for a certificate of competence**. Please refer to the University's latest study cost information for academic fees.
- Cancellations made up to 21 days before the module starts 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 module or change the presenter/s, in which case all fees will be reimbursed in full on request.

## Contact

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