





DATE

11 - 15 July 2022

VENUE

Engineering Faculty, Stellenbosch University

ACCREDITATION

Certificate of attendance (4 CPD points) Certificate of competence (4 CPD points)

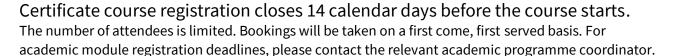
REGISTER HERE

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15 academic credits at NQF 8 or 9 level

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DEADLINE

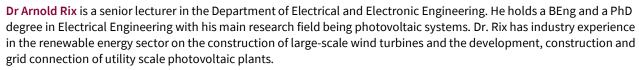






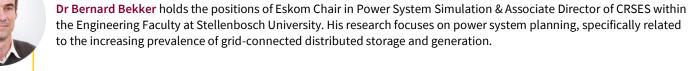
PRESENTER

















Synopsis

The aim of the course is to provide attendees with the understanding and tools to design grid-tied (including hybrid configurations with backup power) PV systems within the South African solar resource, technical and legislative contexts.

The underlying design criteria will be to optimise the energy yield versus lifecycle costs of the PV system within the given resource, technical and legislative constraints, i.e. the optimising the financial viability of the system. Specifically, the following topics will be covered:

- Solar resource & irradiation data sources
- Different solar PV technologies
- Photo-voltaic panel: electrical characteristics, maximum power point, influence of shading & diffuse irradiation, etc.
- Photo-voltaic array: impact of positioning & tracking, string design and DC cable sizing, etc.
- Connection to the distribution grid: power electronics basics, earthing and circuit-breaker design, system sizing, AC cable sizing, South African regulations & standards, etc.
- Financial viability: understanding tariffs, payback, etc.

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 <u>academic programmes</u>. 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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