Energy Storage Systems

CENTRE FOR RENEWABLE & SUSTAINABLE ENERGY STUDIES

DATE 5 – 9 September 2022

VENUE K406, Knowledge Centre, Engineering Faculty, Stellenbosch University

ACCREDITATION

Certificate of attendance (4 CPD points) REGISTER HERE

Certificate of completion (4 CPD points) REGISTER HERE

15 academic credits at NQF 8 or 9 level READ MORE

DEADLINE 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.

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science & innovation
Department:
Science and Innovation
REPUBLIC OF SOUTH AFRICA

Eskom

ENGINEERING EZOBUNJINELI INGENIEURSWESE

PRESENTER

Prof Ben Bladergroen completed his chemical engineering degree at the University of Twente (NL) before he joined the University of the Western Cape (UWC) in 1998 as a PhD student. Prof Bladergroen is the deputy director of the South African Institute for Advanced Materials Chemistry since 2007. Prof Bladergroen is currently heading the Energy Storage Innovation Laboratory (ESIL) which was created in 2015 as a platform to commercialize emerging technologies in partnership with local businesses.

COURSE COORDINATOR

Dr Bernard Bekker holds the positions of Eskom Chair in Power System Simulation & Associate Director of CRSES within the Engineering Faculty at Stellenbosch University. His research focuses on power system planning, specifically related to the increasing prevalence of grid-connected distributed storage and generation.

Synopsis

The objective of the module is to enable participants to understand the concepts and technologies used for electric Energy Storage (ES).

The course highlights Lithium Ion (Li-ion) batteries as the dominant technology in new projects and addresses the complex safety, performance and life issues of this technology.

The technical and financial parameters that drive the project designs of grid-connected and off-grid ES will be discussed. The participant will become familiar with the major factors that determine ES selection and sizing, and be provided with various case studies to use as benchmark.

The module therefore aims to provide professionals with sufficient understanding to establish the key requirements and financial benefits of ES in various grid-connected and off-grid applications.

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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