



Energy, Electrical Engineering



SCANDINAVIAN ACADEMY
Training and Development

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Course: Solar PV System Design

Code	City	hotel	Start	End	price	Hours
329	Rome (Italy)	Hotel Meeting Room	2024-01-01	2024-01-05	5450 €	25

OVERVIEW

After participating in the course, you will be able to:

- Apply basic principles of solar cell operation and comply with electrical authority and system operator
- Perform AC and DC system losses, fault analysis at combiner boxes and assess solar farm site
- Complete design layout and orientation, financial evaluations and operation of utility scale inverters
- Transform to AC and connection medium voltage (MV) distribution system
- Understand safe design (AC arc flash analysis, labeling and interlocking)

Description

The last renewable energy resource to be developed in Canada, solar PV systems are unfamiliar to many engineers involved in power generation. The course deals with solar site assessment, installation consideration, financial evaluation of design, DC and AC losses, utility scale inverters, PV system commissioning and authorities technical requirements.

The course focuses on ground-mounted, grid-connected, medium and large utility scale solar farms connected to medium-voltage hydro circuits. Participants will also learn about overall solar farm configuration including DC and AC design and conceptual design of MV substation and AC collector circuits.

Course Outline

- PV modules
- String voltage and current sizing
- String combiners and recombiners
- Solar farm site assessment
- DC system losses
- DC to AC transformation
- Grounding
- Testing and commissioning of PV system

Who Should Attend

- Owners



- Electrical Designers
- Electrical Engineers
- Sales Engineers
- Electricians
- Project Managers
- Installation and Operating Engineers requiring knowledge of PV Solar Systems



The Scandinavian Academy employs modern methods in training and skills development, enhancing the efficiency of human resource development. We follow these practices:

- **Theoretical Lectures:**
 - We deliver knowledge through advanced presentations such as PowerPoint and visual materials, including videos and short films.
- **Scientific Assessment:**
 - We evaluate trainees skills before and after the course to ensure their progress.
- **Brainstorming and Interaction:**
 - We encourage active participation through brainstorming sessions and applying concepts through role play.
- **Practical Cases:**
 - We provide practical cases that align with the scientific content and the participants specific needs.
- **Examinations:**
 - Tests are conducted at the end of the program to assess knowledge retention.
- **Educational Materials:**
 - We provide both printed and digital scientific and practical materials to participants.
- **Attendance and Final Result Reports:**
 - We prepare detailed attendance reports for participants and offer a comprehensive program evaluation.
- **Professionals and Experts:**
 - The programs scientific content is prepared by the best professors and trainers in various fields.
- **Professional Completion Certificate:**
 - Participants receive a professional completion certificate issued by the Scandinavian Academy for Training and Development in the Kingdom of Sweden, with the option for international authentication.
- **Program Timings:**
 - Training programs are held from 10:00 AM to 2:00 PM and include buffet sessions for light meals during lectures.