



AEDEI

Solar Plant Installation Training



FEES AND DURATION :-
Duration : Three Weeks

**ADVANCE ELECTRICAL DESIGN
& ENGINEERING INSTITUTE**
(Registered under MSME & An
ISO 9001:2008 CERTIFIED)

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Websites : www.advanceelectricaldesign.com
www.solardesigntraining.com

ABOUT US

Advance Electrical Design & Engineering Institute (AEDEI) , **Registered under MSME , An ISO 9001:2008** Certified Institute of Electrical Design & Engineering training programs for Dedicated to Electrical Engineers . AEDEI is latest venture for providing the quality education in the best possible facilities is a key aim of Skill developments for various verticals in Electrical Engineering design.

OUR MISSION

Our Technical Institute offers a full range of training in electrical ,Electronics &Communication and mechanical design courses full fill requirement of current industries ,

These courses which encompass all aspects of core electricity from fundamentals to in-depth of design knowledge are based on several value adding pillars.

Our trainers share their know-how and design experience through demonstrations on dedicated equipment on industries. Courses include training dedicated documents and the possibility of follow-up with regular /internship /e-learning modules. Over one to 45 days depending on the topic, trainees get in-depth, hands-on instruction and the opportunity to practice their acquired know-how.

We cover all the range of engineering industries skills disciplines:

- **Electrical System Design**
- **Solar Power Plant Design**
- **Heat Ventilation and Air Conditioning (HVAC)**
- **Thermal Power Plant**
- **Hydro Power Plant Design**
- **Technical Transformer Design**
- **QA/QC Electrical Engineer**
- **Entrepreneurship solar training**

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OBJECTIVES OF TRAINING

- To make the Engineers expertise in Various engineering design field by experience faculty
- Engineers Job oriented programs.
- Develop the key skill in Electrical designing for employments
- ● To share experiences of various best practices
- To clarify their doubts in the execution process

KEY FEATURES OF TRAINING

- ✓ First Certified institute for electrical and Electronics Engineers.
- ✓ Employment opportunities - EPC Companies, thermal power plant,
- ✓ Government sector (Contract Basis), Manufacturing, construction (Electrical Work).
- ✓ **Placement Partner with 100+companies in India.**
- ✓ Expert Faculty from Industries experience more than 7 year and Electrical Consultants.
- ✓ Hands on training facility on live projects(Power Sector and Infra sector)
- ✓ study materials provide by AEDEI
- ✓ Library of IS CODE , NEC Code, IEEE Code, IEC Code
- ✓ **Individual Candidates provided projects for designing.**
- ✓ Visiting solar power plant during practical session
- ✓ Visiting on switch yard/substation for practical session.
- ✓ **Certified by Solar Installation Engineer.**
- ✓ More than Eleven courses for Electrical Engineers.

SOLAR POWER PLANT INSTALATION TRAINING

Chapter -1 Solar Radiation

- Irradiation and PeakSun Hours
- Solar Radiation Data
- Sunpath Diagram
- Defining the Position of the Sun
- Solar Altitude
- Geometric Effects
- Tilting Solar Modules
- Magnetic North And True North

Chapter – 2 Connection of PV Module(Series and Parallel Circuit)

- Series Circuits
- Parallel Circuits
- Combining Series & Parallel Circuits
- Understanding Cell Connection
- Array

Chapter- 3 PV Cells Selection and Sizing

- Introduction
- Characteristics of a Solar Cell
- Power Characteristics of a Solar Cell
- Fill factor and Equivalent Solar cell Circuit
- STC and NOCT
- Factors Which Affect the Performance of Solar Cells
- Types of Solar Cells
- Manufacture of Silicon Solar Cells

Chapter -4 Inverters Selection and Sizing(Grid Connection and Off Grid)

- Purpose of inverters
- Grid-Connected Inverters vs. Stand-Alone Inverters
- Types of Grid-Connected inverters: Introduction
- Isolated Inverters
- Types of Inverters - PV to Inverter Interface
- Inverter Protection Systems
- Power Quality
- Monitoring
- Inverter Products For Use In India

Chapter- 5 Maintenance And Troubleshooting

- System Maintenance
- Troubleshooting

Chapter -6 Cable Selection and Sizing

- Sizing of solar cable AC /DC cable
- Sizing of AC cable (Inverter to ACDB ,ACDB to MDB)
- Sizing of DC cable (Module to SMB , SMB to Inverter)

Chapter-7 Earthing Selection and Sizing

- Types of earthing
- Types of Earthing strip/ ground conductor
- Types of Vertical electrodes
- Sizing of Cross section area of GI strip

**SOLAR SOFTWARES: Google sketchup, Heliioscope Software.
DURATION : Three Week Course**