

Entrepreneurship Development Program on Renewable Energy Technology

Training Objective:

This training program is designed for professionals who are looking at demystifying the business, finance, technology & regulatory landscape of solar energy. In this program, information necessary to enter the business of Solar Energy will be provided along with excellent networking opportunities. A candidate will be able to have an understanding of the Installation & Design of a Solar system, Technology & Components, Site analysis, Load calculations, How to enter the business of solar, National Solar Mission, Government & State policies, Fundamentals of Solar Photovoltaic. The course will be conducted in a workshop mode (participative) and each session builds upon the previous session.

Who Should Attend?

- Aspiring Students
- Architects
- Consultants.
- Engineers.
- SME Entrepreneurs.
- Electrical & Civil Contractors.
- Corporates.
- Businesses looking at diversification.

Topics to be covered

Module: 1

- What is Renewable Energy
- Why Renewable Energy is Important
- Renewable Energy in India – Growth and Target.
- National Solar Mission
- Policies and Initiatives of State & Central Government

Module: 2

Solar Photovoltaic System

A) Classroom Based Session:

- Basic of Electrical & Electronics.
- Basic Measuring Instruments.
- Solar Photovoltaic Technology
 - Solar Cells, Solar PV Panel, Solar PV Array, How Photovoltaic works, Different Types of Solar Cell, P-N Junction & Photovoltaic Effects.
 - Applications of different photovoltaic technologies.
 - System Design and Configuration.
 - Trouble shooting and Maintenance.

B) Hands on Session:

- ☉ How to use and take readings with basic measuring equipment's.
- ☉ Designing, Assembling, Installation, Troubleshooting & Maintenance of
 - Solar Lantern
 - Solar Home Lighting System
 - Solar Street Lighting System & Solar Garden Light
 - Solar Power Plant – (Off grid, On-grid, Hybrid System)
 - Solar Pump
 - Solar Road Traffic Signalling System
 - Preparation of IV Characteristics & Plotting

Module: 3

Solar Thermal System

A) Classroom based Session:

- ☉ Basic Measuring Instruments.
- ☉ Solar Thermal Technology
 - Solar Collector : Classifications, Types & Performance of Solar Collector
 - Applications of various solar thermal technology
 - System Design and Configuration.
 - Trouble shooting and Maintenance.
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B) Hands on Session:

- ☉ How to use and take readings with basic measuring equipment's.
- ☉ Designing, Assembling, Installation, Troubleshooting & Maintenance of
 - Solar Cooker
 - Solar Distillation Plant
 - Solar Drier
 - Solar Air-Treater
 - Solar Heat Pipe
 - Solar Water Heating System

Module:4

Wind Power System & Wind-Power Solar Hybrid System

A) Classroom based Session:

- ☉ Basic Measuring Instruments.
- ☉ Wind Power & Wind Solar Hybrid System
 - Components of wind power system
 - Types of wind turbine.
 - Concept of wind-solar hybrid system.
 - Application of wind-solar hybrid system.
 - System Design, MOC and Configuration.
 - Trouble shooting and Maintenance.

B) Hands on Session:

- ☉ How to use and take readings with basic measuring equipment's.
- ☉ Designing, Assembling, Installation & Maintenance of Wind Power and Wind-Solar Hybrid System (WSHS)

- Component of WSHS : Wind Generator, Battery, Charge Controller, Control Panel, Weather Monitoring, Data acquisitions,
- System Designing and Configuration of WSHS.
- Assembling of WSHS.
- Criteria for Site Selection, Civil job for Installation of WSHS.
- Trouble shooting and Maintenance of WSHS.

Module:5

Live Installation Site Visit, Projects, Case Study on R E System

- Installation Site Visit
- Group Activity : Case Study

Module:6

- Safety at your Work Place
- Project Feasibilities Study.
- Cost Benefit Analysis.
- Report Preparation of Renewable Energy Project.
- Business opportunity analysis.
- Developing a business plan for start-up and existing entrepreneur.
- Demand Generation, Market Assessment, Product Positioning, Pricing Strategy, Taxation, Incentives & Sales skills and selling of renewable energy systems, Income Statement, Balance Sheet, Cash flow, Employee Hiring-training, Transportation of Products, Clientee & Partners Management
- Facilities, Incentives, Various Schemes to arrange Start-up Funds
- Role-play a conversation between a customer and a businessperson
- Business Ethics, Time Management & Communication, E-Business and Soft Skill Session

