



THE NATIONAL INSTITUTE FOR ENTREPRENEURSHIP AND SMALL BUSINESS DEVELOPMENT

Ministry of Skill Development and Entrepreneurship, Govt. Of India
 A-23, Sector-62, Institutional Area, Noida - 201309, UP, India
www.niesbud.nic.in

Programme Details

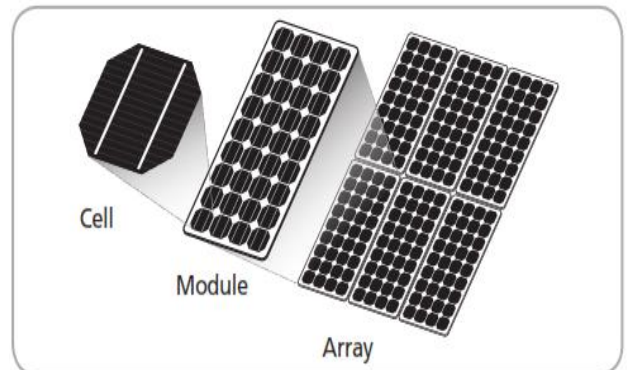
Entrepreneurship Development Program
 (Manufacturing, Repairing & Data Management)

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POWER: SOLAR/Grid/Wind/Battery
SMART: Power Management and Utilization

(INVERTER/UPS TECHNOLOGY)
 (LED Lighting, Heating, ICT Towers and Agricultural Pumping)

Date	Venue	Course Fee
21-22 Jan.2017	NIESBUD, Sector-62, Noida, U.P	Rs. 6,500=00



Brief Description of Training Program

Futuristic technology in the field of

- Hybrid SOLAR Power/ Battery & Inverter/UPS
- Solar photovoltaic water pumping systems
- Water Heating
- Data Management (Remote) etc.

Essential for-: Remote and Hilly areas

- ICT Infrastructure,
- Defense Stations, Border Security,
- Hospitals, Banks Schools etc
- People, and Communities in Remote

This program will help candidates to understand the basic need of technology, infrastructure, and finance requirements for starting hybrid solar power and related products & data management business and servicing business in India.

After completion of training program, candidate will be able to understand the basics of the following:

Solar Power:

- All New and Renewable Energy,
- Solar Photovoltaic-Cell, Module, Array,
- Solar Thermal Devices,
- LED Lighting system.

Smart Hybrid SOLAR Power Technology backed by:

- **Inverter/UPS** Battery,
- Mains (Grid power) and being used for
 - Domestic/Industrial: LED Lighting and power devices,
 - Power back-up with motor speed control (HVAC) and,
 - IoT controlled power back-up with motor speed control.

- ✚ Installation and commissioning of domestic/industrial Solar Power products.
- ✚ Major components and building blocks of Solar Power products.
- ✚ Inverter technology and related components.
- ✚ How to build or, manufacture.
- ✚ Marketing, Entrepreneurship, Govt. Loan Scheme.
- ✚ Utilization and Future scope of Solar Power and Inverters in different business and industry domain (Energy, Power, Industry, utility and Telecommunication).

Who should attend

- Entrepreneurs
- (Retired) Professionals
- Engineers
- Consultants
- Start-ups
- Faculty/Teachers
- Students
- Technically inclined individuals

The training programme deals with learning ways of income generation through starting small business/earning using Solar Power and Smart Inverter Technology. After successfully completing this Certificate Course on **Solar Power and Smart Inverter Technology**, one will be sufficiently qualified to start and run his own micro and small enterprise and even can append and supplement his existing technical knowledge

Six months hand holding support (free of cost)

Extremely Beneficial for:

Students | Businessmen | Entrepreneurs | Startups | Corporate
Working Professionals | House Wives | Media Professionals

The three days programme will include class room lectures with live presentation for the participants and individual and group practice as well as hands-on overview electronic components and circuits. Candidates are advised to bring their own Laptop/i-pad/Tab/Smart Phone for the programme. Free Wi-Fi will be provided.

Rs. 6,500=00 (Six thousands, five hundreds) only

This includes course fee, Wi-Fi, Projector, individual practice on PCB with some components for all, lunch, tea/coffee and Govt. Certificate.

Mode of Payment:

- 1) *Cash payment at NIESBUD*
- 2) *DD drawn in favor of NIESBUD payable at Noida*
- 3) *Online Bank Transfer. The details are:*

Name of bank: Oriental bank of Commerce

Account holder name: National Institute for Entrepreneurship and Small Business Development

Address: B-31, Sector 62, Noida

Account No: 09312011002654

Account Type: Savings

IFSC Code: ORBC0100931

MICR Code: 110022092

CONTACT PERSONS:

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TRAINING – COURSE CONTENT

SOLAR/Grid/Wind- POWER

16/17/18 Dec.2016

DAY-1 Morning

- Registration, Introduction of Niesbud, Overview of Solar Program.
- Types of power- **SOLAR/Grid/Wind-all Renewable energy**
- Current Scenario of **SOLAR/Grid/Wind- POWER**

DAY-1 Afternoon

SOLAR ENERGY based PRODUCTS

- Solar photovoltaic water pumping systems
- Solar Lighting
- Hybrid Design: Hybrid solar system
- Solar Power/ Battery & Inverter/UPS
- Solar Power Tracking System
- Remote Power, Telecommunication, Data Transmittal, Security Systems

DAY-1 Afternoon

Practical:

1. Solar Energy needed for a typical ICT Center in Rural/Remote environment
2. Solar Energy needed for a typical Banking in Rural/Remote environment
3. Solar Energy needed for a typical Hospital Service in Rural/Remote environment
4. Choosing components for Solar Energy Power supply needs for 1000 Watt load

DAY-2 Morning

Management of Solar Home Lightning System

- Details of Solar Lantern, Street lights, Solar Home Lightning Systems; Working principles Important components. Role of Charge controller, Battery
- Study of Solar photovoltaic module Assembly/Dismantling of Solar lightning system- Lantern, domestic light,

DAY-2 Afternoon

Objectives of the Entrepreneurship Development Program

- An overview about Entrepreneurship Development Workshop
- How to commercialize an Idea and connect with Entrepreneurship Mission.
- Which are the basic functions involved in running an Enterprise
- Emerging Trends of Entrepreneurship Development and challenges to Entrepreneurs.
- How to calculate the Investment Capital required to fund an Idea or Business Venture.
- How to Develop Capital Raising Capacity.
- How to manage the Risk involved in running an enterprise
- Various Govt. Schemes to apply for aid in starting an Enterprise of solar products
- Benefits from **Entrepreneurship Development Training and NIESBUD Certificate**
- **Go Home and be a Solar Entrepreneur**

COURSE CURRICULUM

- Type of energy
- Introduction to New and Renewable Energy
- Challenges of New and Renewable Energy
- Benefits of New and Renewable Energy
- Obstacles in Solar Products Promotion.
- Future of Solar energy in India and Abroad
- Commercialization of solar products

SOLAR PRODUCTS

1. Solar Cookers:

- Type of Solar cooker:
- Box type/Dish type
- Working principles.
- Application of solar cookers for household and community purposes.
- Manufacturing of Solar cooker,
- Tools & Equipments
- Details of components
- Assemble & dismantle of products

2. Solar Water Heaters:-

- Types of Solar Water Heaters
- Working Principles
- Manufacturing in Solar water Heater
- Installation of Solar water Heater
- Tools & equipments
- Details of Components

3. Solar Lightning System

- Details of Solar Lantern, Street lights, Solar Home Lightning Systems.
- Working principles of solar photovoltaic.
- Important components of solar lightning systems.
- Role of Charge controller, Battery
- Tools & Equipments
- Study of Solar photovoltaic module
- Functions of solar lighting Products.
- Assembly of Solar lightning system- Lantern, domestic light,
- Dismantling of solar lighting products.
- Marketing of solar products in India.
- Export potential of solar products.

There is the need for the provision of an alternative sustainable electric power supply system to provide electricity to rural and the unreached areas and communities. The importance of Information Communication Technology for e-service to rural communities are inevitable in order to improve the social and economic lives of rural citizens. Solar Energy is needed for:

1. ICT Center in Rural/Remote environment
2. Solar Energy needed for Banking, Schools, Hospitals etc. in Rural/Remote environment

When considering the cost and overall efficiency, it is advisable for all the stakeholders who have concern for the rural community development to embrace solar and wind power.