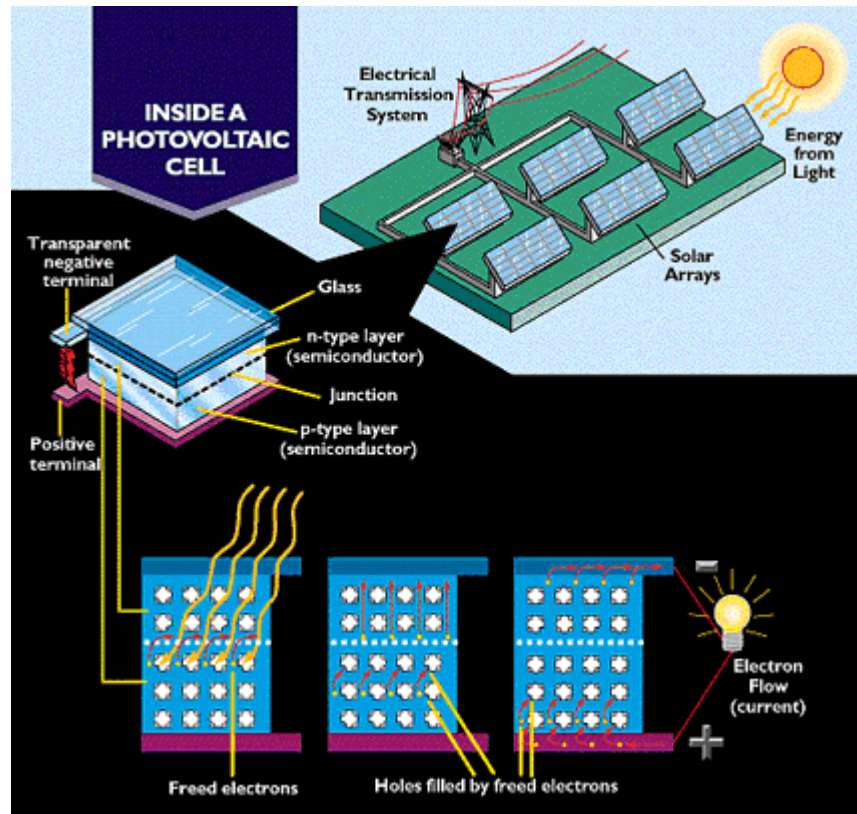


3 day Training Programme on  
**Solar Energy Technologies and Applications**

20 - 22 February 2017.



**Programme Director**  
**Mr.J.Koteswara Rao.**  
**Associate Faculty Member (S.E.D)**



**NATIONAL INSTITUTE FOR MICRO, SMALL AND MEDIUM ENTERPRISES (ni-msme)**

*(An ISO Certified 9001-2008 certified organization)*  
**(An Organisation of Ministry of M. S. M. E., Govt. of India)**

**Yousufguda, Hyderabad - 500 045**

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**INTRODUCTION:-**

Solar Energy is a readily available source of energy. It is also the most important of the non-conventional source of energy as it is Non-polluting and therefore helps in reduction of Green House Gases.

**Photovoltaic** is the application of solar cells for energy by converting solar energy directly into electricity. The increasing demand for clean sources of energy has led to a dramatic increase in photovoltaic systems.

Photovoltaic production has doubled on average every two years. An average 48 percent growth has been seen each year since 2002. This makes photovoltaics the world's fastest growing energy technology. Another feature that has made this technology popular is Net metering which is a financial incentive to having solar electric energy.

The National Solar Mission aims at 20,000MW solar energy by 2020. This would mean installation of new solar energy capacity of 2000MW per year. The Ministry of New and Renewable Energy (MNRE) New Delhi, India has formulated a programme to have Solar Energy in more than a million households in next few years. This has created a huge demand for technical manpower in solar energy field.

**ni-msme** a premier institution planning to conduct a three day Training programme. on "Solar Energy technologies and applications"

**OBJECTIVE:-**

Implementation of National Solar Mission will need massive trained human resource in areas of manufacturing, installation, commissioning and maintenance of this solar installation.

The training programme on "Solar Energy technologies and applications" aims at training the technical personnel in installation, commissioning and maintenance of the solar equipment in the field. This 3 day training

programme is designed to educate and build the solar field engineers who would meet the exponential demand of solar energy industry.

### **COURSE COVERAGE:-**

- Basics of Solar Energy, Solar radiation
  - Short Film on Solar Energy utilization
  - Policies, Business models & subsidy mechanisms
  - Role of charge controllers
  - System designing of solar panels and PCB Boards
  - Economic Analysis
  - Market Overview & Off – Grid Systems
  - Trouble Shooting & MNRE Programmes under National Solar Mission
  - Solar Energy Technologies -applications
  - Case Study Presentation
  - Exposure Field Visit

### **METHODOLOGY:-**

Methodology includes class room lectures with audio visuals, interactive sessions through group discussions, case studies etc. Emphasis would be laid on sharing of experiences of participants. Active participation is solicited from participants.

### **WHO SHOULD PARTICIPATE:-**

- Educational requirement for attending this training programme is Diploma in Mechanical /Electrical/ Electronics/ B.Sc. (Physics) / ITI. + 2 yrs of experience. Technical employees in Solar Energy Industry can also attend.
- Installers, Specifiers and those who need or want to have a good understanding of Solar Photovoltaic installation and maintenance.
- Companies that need trained manpower for business expansion in Solar Photovoltaic domain.
- Organizations/ entrepreneurs engaged in implementation of Solar Photovoltaic Plants.

## **BENEFITS TO THE PARTICIPANTS**

As solar energy takes off as a viable and affordable renewable energy resource, green jobs are sprouting up for solar installers. This training will provide complete awareness and technical knowledge on module designing and economics, installation/commissioning and maintenance of Solar PV plants.

**Programme Venue:** ni-msme campus, Yousufguda , Hyderabad

### **Dates:**

**20 – 22 February 2017.**

### **Timings:**

On the first day, Registration will commence at 09.00 hrs. On all other days, the programme timings will be from 09.30 – 17.15 hrs with breaks in between for tea and lunch.

### **Course Fee:**

**Rs. 9,000/- (Nine Thousand Rupees only) Residential Fee** per participant. Fee includes course material, course kit, twin-sharing accommodation as per availability, breakfast, lunch, dinner, tea / coffee and snacks during the actual days of training programme.

To register manually, please send your nominations giving details of name, designation, contact address, e-mail address, Mobile No's, Telephone and Fax number of the participant along with the details of payment of fee, in the mode of Cheque/DD in favour of "**Chief Administrative Officer**" ni-msme payable at **Hyderabad**.

### **Certificate:**

A certificate of participation will be awarded to each participant on conclusion of the programme.

**Programme Director**

**J.Koteswara Rao.**

Associate Faculty Member (S.E.D)

### General Information:

**ni-msme** encourages participants to present case studies from their respective organizations.

**ni-msme** will provide complimentary accommodation only to participants a day prior to the commencement and after the conclusion of the programme.

- Well developed Information Centre and internet facilities are available to the participants Free of cost.

Enquiries and nominations may be addressed to:

#### **The Registrar**

**National Institute for Micro, Small and Medium Enterprises (ni-msme)**

*(An ISO Certified 9001-2008 certified organization)*

(An Organisation of Ministry of Micro, Small and Medium Enterprises,

Govt. of India)

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