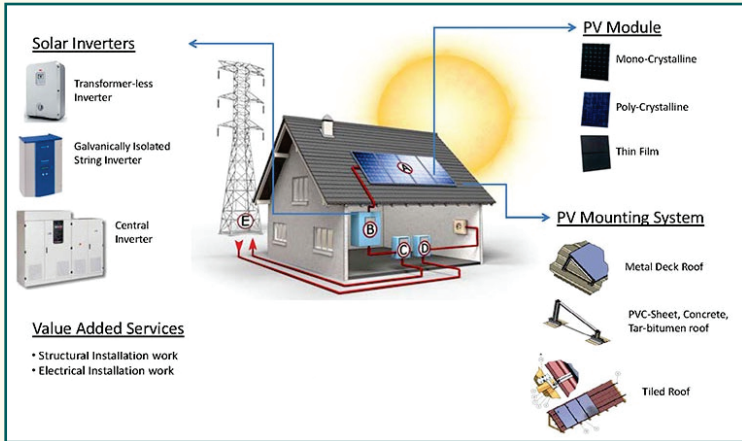


## Training Programme on

# SOLAR PV GRID CONNECTED POWER PLANTS (Installation & Business Opportunities)

27 - 29 May, 2019



Programme Director

**Mr. J. KOTESWARA RAO**

Associate Faculty Member (S.E.D)



**National Institute for Micro, Small and Medium Enterprises**

(An Organisation of the Ministry of MSME, Govt. of India and ISO 9001-2015 Certified)

## OVERVIEW

National Institute for Micro, Small and Medium Enterprises (**ni-msme**) Hyderabad, conducts short-term on Solar PV Grid Connected Power Plants (Installation & Business opportunities) course for start-ups, entrepreneurs and managers of project developers, implementing agencies and students. Course focus is on solar power projects design and development.

The participants will gain knowledge and will have the opportunity to interact with highly experienced renewable energy project managers, technicians, and experts on site & resource assessment, system sizing, project planning, accurate energy yield assessment, best practice in design and installation, detailed feasibility report/ DPR preparation, bid preparation and evaluation, Operation & Maintenance, planning, documentation and knowledge management etc.

Course covers both rooftop and large scale PV power projects.

## PROGRAMME CONTENT

1. Solar project development phases and issues
2. Solar PV technology overview
3. Site assessment & feasibility study for rooftop and MW scale solar power projects
4. Project planning and schedule of activities in solar power project development
5. Methodology and approach for solar resource assessment
6. Loss estimation and energy yield calculation
7. Capacity or system sizing approach
8. Project cost estimation and economic analysis
9. Preparation of Detailed Feasibility Reports/ DPR
10. PV system design to ensure safety and performance
11. Preparation of Bill of Materials (BoM)
12. Operation & Maintenance, (O&M) Planning
13. In plant Exposure visit
14. Hands on Training on 1 kW Installations system.

## TRAINING METHODOLOGY

The course will be delivered in lecture format using Power Point Presentations, sharing of case studies examples, energy yield estimation exercise and site assessment exercise.

## WHO SHOULD ATTEND

Students, Start-ups, Budding and Prospective Entrepreneurs, Engineers, Technicians, Project Managers and officers from project developers, implementing agencies and EPC companies involved in development of solar power projects.

**Training Materials:** We will provide the following training material

- ♦ Copies of **ni-msme**, Sample Reports on Bankable DPR, Bill of Material, Bid Evaluation guidelines and solar power projects.
- ♦ Copies of power point presentations and case studies
- ♦ Demonstration of Equipment, accessories and tools for hand on training .

## CERTIFICATION

**ni-msme** develop and deliver solar PV training courses in accordance with international competency standards and accreditation requirements. On successful completion of the programme all participants/ students will get a participation certificate.

**ni-msme** Principal trainers have over 25 years of experience in renewable energy planning; engineering design; tender preparation and evaluation; techno-commercial due diligence and project implementation. Our trainers have authored and co-authored several books and training manuals on solar PV system design installation, maintenance and inspection. Selected publications of our principal trainers are –

- ♦ Grid Connected PV System Design and Installation
- ♦ Standalone Photovoltaic Design & Installation
- ♦ Solar PV System Inspection and Evaluation
- ♦ Training manuals for solar PV technicians
- ♦ Grid connected PV systems with battery storage
- ♦ Solar Entrepreneurs Handbook

## PARTICIPATION FEE

**Rs. 7,500/- (Residential), Rs. 6,000/- (Non-Residential)** per 3-days programme in addition of 18% GST is applicable for both.

Programme fee should be remitted through a Demand Draft drawn in favour of **Director (Administration & Logistics), ni-msme**, and payable at Hyderabad well in advance of the programme. For online payments: Andhra Bank, Srinagar Colony Branch, Current Bank Account No: 054311011101064 and IFSC Code is ANDB0000543. **Due to any /some reason if a nominee is unable to attend the programme, substitute will be permitted, as fee once paid in not refundable.**

**Enquiries and nominations may be addressed to:**

**J. Koteswara Rao**

Associate Faculty Member

School of Enterprise Development (SED)

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

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## ni-msme - the premier Institute

**ni-msme**, the pioneer institute in the field of MSME is playing a major role in providing pro-business environment to foster the progress of MSME towards success and prosperity. The raison d'être of this Institute is to assist the Government in formulating policies for micro, small and medium enterprises and to help the practicing and potential entrepreneurs through a host of services like training, research, consultancy, information, education and extension.

Set up in 1962, **ni-msme** has made valuable contributions by creating an impressive record of achievements beyond the Indian shores, enabling other developing countries to get the benefit of the Institute's facilities and expertise.

Located in a sprawling and enthralling campus amidst a rich natural setting, **ni-msme** is well equipped with both physical and academic infrastructure. In keeping with the changing times and technological changes, the Institute has updated its style of functioning by focusing on the use of IT in every aspect of its activities, but at the same time retaining the wisdom and advantages of deeply ingrained traditional practices.

The core activities are being implemented through Centres like Centre for Industrial Planning and Development (C-IPD), Centre for Policy Research (C-PR), National Resource Centre for Cluster Development (NRCDC), Centre for Promotion of Advanced Management Practices (C-PAMP), Centre for Industrial Credit and Financial Services (C-ICFS), Centre for Logistics and Integrated Materials Systems (C-LAIMS), Centre for Environment Concerns (C-ECO), Intellectual Property Facilitation Centre for MSMEs (IPFC), Centre for Entrepreneurship and Industrial Extension (C-EIE), Centre for Consultancy and Counselling (C-CC), Centre for Communication and Information Technology (C-CIT), Small Enterprises National Documentation Centre (SENDOC) as well as cells like Economic Investigation and Statistical Cell (EISC), **ni-msme** NGO Network (N-Cube), Women Studies Cell (WSC), Employee Assistance Cell (EAC), Live Projects Cell (LPC), Resource Centre for Traditional Paintings (RCTP), Goods & Services Tax (GST) Cell and Livelihood Business Incubator (LBI)

The Institute stores and supplies information that helps make a successful entrepreneur who is well versed in the intricacies of business and can participate in business activities intelligently and diligently through its Small Enterprises National Documentation Centre (SENDOC) and knowledge portal [www.msmeinfo.in](http://www.msmeinfo.in). Livelihood Business Incubator (LBI) established in 2016 under the Scheme of ASPIRE of Ministry of MSME, Govt. for creating a favorable ecosystem for entrepreneurial development in the country.

The Institute has trained more than 5,32,000 participants by organising around 15,800 programmes which includes prospective/existing entrepreneurs and officials from various Ministries of Govt. of India and State Governments till March 2019. The Institute is implementing ITEC Scheme of Ministry of External Affairs, Govt. of India since 1967 and trained more than 10,000 International Executives from 142 developing countries till March 2019. The Institute has also undertaken more than 940 research and consultancy projects.

The management of the Institute rests with the Governing Council appointed by the Government of India. The governing body acts through the resident Director. The present Director is **Dr. Sanjeev Chaturvedi**

*For further details, please contact*



**The Registrar**

**National Institute for Micro, Small and Medium Enterprises**

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