Two-Day Skill Development Program On

"Solar Resource Measurement, Assessment and Calibration"

Date: 5th -6th May 2016

Venue: NISE Campus, Gurgaon



About NISE:

National Institute of Solar Energy (NISE), an autonomous center of excellence of Ministry of New and Renewable Energy, Government of India, is conducting national skill development programs to meet the needs and upgrade the technical expertise of solar professionals.

Learning Objectives

- I. Learn about Sun, and Irradiance / Insolation.
- II. Computational methods for assessment of Solar Radiation.
- III. Instrumentation and Requirements for a Solar Radiation Resource Measurement Station.
- IV. Qualitative processing of Solar Radiation Data.
- V. Application of Solar Radiation data, and its prediction from Satellite imageries.
- VI. Standards and Requirements for calibration of Solar Radiometers.

Target Audience

Scientists, Researchers, Engineers Technologists, Manufacturers of Solar Business, SNA officials , any individual wishing to know about Sun and its resource Potential.

<u>Agenda</u>

| Day 1 (5 th May 2016, Thursday) | | | | | | |
|--|---|---------------|---|---|--|--|
| Sl. No. | Session Title | Time | Session Description | Speaker | | |
| Registration and High Tea | | 10:00 - 10:30 | Registration and High Tea | | | |
| 1.1 | Welcome, Introduction and Overview of the workshop | 10:30 - 11:00 | Overview of the workshop and orienting the participants towards the workshop goals | DG-NISE Mr.S.K.Singh Dr. N.B. Raju Prof. (Dr.) H.P. Garg | | |
| 1.2 | Solar Radiation Availability | 11:00 - 12:30 | About basics of Solar Radiation & its availability. | Prof. (Dr.) H.P. Garg, | | |
| 1.3 | Solar Radiation Computation and Assessment. | 12:30 - 13:30 | Computation of Solar Radiation using different models. | Senior Consultant NISE | | |
| Lunch | | 13:30 - 14:30 | Lunch | | | |
| 1.4 | Solar Radiation Resource Assessment Stations in India and Interpretation of Solar Radiation Data | 14:30 – 15:30 | About SRRA Stations in India | Dr. Nikhil P G, SRS, NISE | | |
| Теа | | 15:30 - 15:45 | Теа | | | |
| 1.5 | Visit to SRRA Station at NISE | 15:45 – 17:00 | Visit to SRRA Station at NISE in two groups. | Dr. Nikhil P G/ Mr. Sachin Jain | | |
| ***** End of Day 1***** | | | | | | |

| Day 2 (May 6 th 2016, Friday) | | | | | | |
|--|---|----------------|---|---|--|--|
| SI. No. | Session Title | Time | Session Description | Speaker | | |
| 2.1 | Application of Satellite imagery for prediction of Solar Irradiation data | 10:00 to 11:00 | Solar radiation from Satellite imagery | Expert from NRSC, Hyderabad | | |
| | Теа | 11:00 - 11:15 | Теа | | | |
| 2.2 | Importance of Solar Radiation Data in Technology Selection | 11:15 – 12:30 | Importance of Solar Radiation Data in Technology Selection | Mr. S K Singh, Scientist G/DDG, NISE. | | |
| 2.3 | Quality Assessment of SRRA Data | 12:30 - 13:30 | Quality procedures adopted in the processing of SRRA Data | Expert from NIWE, Chennai. | | |
| Lunch | | 13:30 - 14:00 | Lunch | | | |
| 2.4 | Calibration of Solar radiometers | 14:00 – 15:00 | Various methods involved in the calibration of Solar Radiometers | Mr. Ravi/Mr. Ishan , SECI | | |
| Теа | | 15:00-15:15 | Теа | | | |
| 2.5 | Visit to Solar Radiation Calibration facility at NISE | 15:15- 16:00 | Visit to Solar Radiation Calibration facility at NISE | Mr. Ravi/ Mr. Ishan , SECI | | |
| 2.6 | Workshop Overview and Feedback | 16:00 – 16:30 | Q&A Session with the Delegates and Distribution of Certificates on successful completion of the workshop | DG-NISE Mr.S.K.Singh Dr. N.B. Raju | | |
| | 1 | End of Work | · · | | | |

Training Fee per participant*

Rs. 5,750 (Inclusive of Service Tax) *

There are a total of 30 seats per batch on first come first serve basis. Lunch, Tea will be provided during Training Programs. TA/DA will not be provided by NISE. However, Accommodation facility is available to limited participants on payment basis. (On advance request).

How to apply?

Participants may kindly make the Payment of **Rs. 5,750** through RTGS/NEFT/Bank Deposit in favor of:

Account Holder Name: NISE Skill Development Account Type: Savings Bank Bank Name: State Bank of India Branch: DLF Qutab Enclave, Gurgaon , (SBI Branch Code: 6604) Account No. 35245666110 IFSC Code: SBIN0006604

Submit your registration forms (Attached) through email (<u>skill.nise@gmail.com</u>) or through courier/speed post at the following address at least Four days before the start of training.

Deputy Director General (Skill Development) National Institute of Solar Energy (NISE) Gurgaon Faridabad Road, Gwalpahari, Gurgaon-122003, Haryana

Note: The participants must clearly indicate send their bank transfer details (by e-mail) in advance to the Program Director, then only, the participants could be allowed to attend the training programs.

Two-Day Skill Development Program On

<u>"Solar Resource Measurement, Assessment and Calibration" (May 5th – 6th 2016)</u>

Registration Form

Kindly provide the following details during registration-

| Name of Delegate/Participant | : |
|------------------------------|---|
| Name of the organization | : |
| Designation | : |
| Contact number | : |
| Email Id | : |
| Address | : |

Accommodation Required (On Payment Basis of Rs.690 per night) : Yes/No

| Amount Transferred | : Rs.5750 |
|----------------------|------------------|
| NEFT / RTGS Number | : |
| Bank Name & Location | : |

Signature of the applicant with date

For any queries please contact between 11:00 am to 5:00 pm during weekdays: Dr. Nikhil P G, Senior Research Scientist (Lead Coordinator) nikhilpg_mnre@hotmail.com, Ph:9560113132

Mr. Rahul Pachauri, Junior Research Scientist (Coordinator) Ph-09990709444

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