

INTRODUCTION

With the Jawaharlal Nehru National Solar Mission, there is a thrust towards Solar Power in India. To facilitate the development of cost effective Solar Power Plants in India, IIT Bombay is setting up a National Solar Thermal Power Testing, Simulation and Research Facility with the financial support of the Ministry of New and Renewable Energy (MNRE), Government of India. A grid-connected solar thermal power plant, with a gross capacity of 1 MWe, has been designed, built and is being commissioned at Gurgaon near New Delhi. The National Solar Thermal Testing facility will enable testing and characterization of new and existing solar thermal technologies and/or various components as well as performance of the overall system. The solar thermal power plant simulator will enable one to simulate different scenarios in solar thermal power generation, performance and configuration optimization as well as scale up study.

The 3-day training course is designed to equip the participants with both theoretical knowledge of solar thermal power plant technologies as well as the practical knowledge to design and implement such projects in the field.

COURSE OBJECTIVES

- Achieve an understanding of the operation of different components of a solar thermal power plant
- Gain relevant knowledge and information essential for successful project implementation - from the initial concept to full operation
- Assess the economic viability of solar thermal power plant systems
- Get a better understanding of the potential risks of a solar thermal power project, its impact and mitigation strategies

COURSE CONTENTS

The course will provide a detailed coverage of the Solar Thermal Power Plant. It will cover the following topics:

- Electricity Scenario (World/India)
- Solar Radiation
- Thermodynamics and Power Cycles
- Solar Thermal Power Plant Configurations
- Controls/Operating Strategies
- Cost and Economics

- Performance Testing of Components and Systems
- Simulation

WHO SHOULD ATTEND?

The proposed course has a strong technical focus and is mainly targeted at engineers and technicians in the fields of consultancy, project development and industry. A good understanding of power generation technologies as well as basic thermodynamic knowledge will be required to be able to follow this course. Existing solar specific knowledge is not required. The participants are required to carry scientific calculators.

Potential target persons:

- Facility managers and staff responsible for technical energy supply in their company
- Project developers from conventional, renewable or solar thermal energy sector
- Decision makers from medium to upper management (with technical backgrounds)
- Young professionals, students and entrepreneurs (with relevant technical backgrounds)

Certificate of participation will be given to all participants.

PROGRAMME VENUE

The programme will be held at, **Jal Vihar Guest House, IIT Bombay**. IIT Bombay is a small township in itself. The campus has a green cover, rich in natural flora and fauna. The campus extends over 220 hectares amidst picturesque surroundings with Vihar and Powai lakes on either side.

COURSE FEE

Per participant ₹ 12000/- (₹ Twelve Thousand Only) plus 12.36% Service Tax

The demand draft should be drawn in favour of **The Registrar, IIT Bombay- CEP Account** payable at Mumbai. **No income tax is to be deducted at source from the course fee, as IIT Bombay is exempted from the same.** **The course fee includes course material, working lunch and coffee/tea; it does not include the cost of boarding and lodging for the participants.**

To fully realize the objectives of the course, the lecture notes/slides will be made available to the participants at the time of registration at IIT Bombay.

REGISTRATION

Names of the participants may be forwarded along with the demand draft for the course fee to the address given below on or before 15th April 2013. Please note that the registration formalities will close on 25th April 2013 and that there is a limit on the number of participants.

ACCOMMODATION

Accommodation charges are not included in the course fee. Limited accommodation in the institute guest house (on additional payment) will be available on twin sharing basis on first-cum-first served basis.

ADDRESS FOR CORRESPONDENCE

Prof. J.K.Nayak,

Dept. of Energy Science and Engineering,
Indian Institute of Technology Bombay,
Powai, Mumbai 400076, India.

Phone : (+ 91-22) 25764894, 25764888

Fax: (+91-22) 2572 6875, 2572 3480

e-mail: keshavkale@iitb.ac.in

jknayak@iitb.ac.in



Three-day CEP Course on

Solar Thermal Power

April 29 – May 01, 2013

Coordinator

Prof. J.K. Nayak

Department of Energy Science and Engineering

Office of
Continuing Education & Quality Improvement Programmes

**Indian Institute of Technology Bombay
Powai, Mumbai – 400 076**

REGISTRATION FORM

Three-day CEP Course on
Solar Thermal Power

April 29 – May 01, 2013

NAME (BLOCK LETTERS) : _____

_____ Gender: M / F

DESIGNATION : _____

ORGANIZATION: _____

MAILING ADDRESS : _____

TELEPHONE : _____ (O) _____ (R)

FAX: _____ MOBILE: _____

EMAIL : _____

QUALIFICATIONS : _____ EXPERIENCE : _____ Yrs.

IIT Guest House accommodation required?* YES / NO

PAYMENT: D.D. No.: _____ Dt. _____ Rs. _____

[Demand draft should be drawn in favour of "Registrar, IIT Bombay (CEP A/c)".]

Date: _____ Signature of Applicant _____

***Guest House bill to be paid directly by participant.**

(PHOTOCOPY ADDITIONAL COPIES OF THIS FORM, IF NEEDED)

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