

Two-Day Intensive Course

PINCH TECHNOLOGY: ENERGY AND WATER MANAGEMENT

7 and 8 December, 2011

Department of Energy Science and Engineering, Indian Institute of Technology Bombay

PINCH TECHNOLOGY

PINCH TECHNOLOGY comprises a set of simple and elegant tools for designing integrated production system with special emphasis on efficient utilization of energy and reducing environmental effects. It does not require complex mathematical formulations and is thus relatively easy to use for industrial problems. When applied in a systematic and logical manner, these design principles allow process engineers to explore alternatives that are economically attractive for grass roots as well as retrofit applications.

ENERGY AND WATER MANAGEMENT

Energy management can help industry control its operating costs. Energy Conservation Act (2001) has made energy management mandatory for large industries. Water is also an important resource in process industries. Water management helps in reducing operating costs through minimising freshwater requirement and wastewater treatment. Techniques of pinch technology can be applied to conserve energy and water. The technology recognizes the vital necessity to first set targets and then design energy and water networks. These techniques aim at effective reuse, recycle and regeneration for optimal management of water.

COURSE OBJECTIVES

The course is planned to equip practicing engineers with the principles of energy integration and techniques of pinch technology for better process design (economically attractive designs with optimal resource requirements), through a judicious blend of theory and industrial case studies. The primary focus of this course will be issues related to energy and water management in process industries. The course will consist of lecture sessions; tutorial / hands-on training sessions; software and industrial case-study sessions. *Participants are requested to bring a pocket calculator for the tutorial and hands-on-training sessions.*

WHO SHOULD ATTEND?

This course is intended for professionals in the process industries and engineering consulting companies who are involved either with process design, energy auditing and conservation, water management, waste management, pollution prevention, pollution control and energy/environmental planning decisions. *Certificate will be given to all participants.*

COURSE CONTENTS

The course will provide a detailed coverage of the basics of Pinch Technology and the primary focus will be on Energy and Water Management. It will cover the following topics:

- *Pinch Technology*
- *Energy Audit and Conservation*
- *Energy Targeting and Pinch Principles*
- *Design of Heat Exchanger Networks*
- *Water Conservation and Management*

- *Various advances in Pinch Technology*
- *Industrial Case Studies*
- *Tutorial and hands-on training sessions*

Lectures will begin at 9:00am every day.

COURSE FEE

Per participant

- **Rs.10000 for Industry delegates**
- **Rs.8000 for academic participants**

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 exempt from the same. *The course fee includes course material, free software for energy targeting, working lunch and coffee/tea.*

PROGRAMME VENUE

The programme will be held at the Seminar Hall, **Victor Menezes Convention Center (VMCC), 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.

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 **25th November 2011**. On December 8, 2011, registration formalities will be completed from 8.30 to 9.00 hrs.

COURSE FACULTY

- Prof. Dominic Foo, University of Nottingham Malaysia Campus, Malaysia
- Prof. Raymond Tan, De La Salle University, Manila, Philippines
- Prof. Santanu Bandyopadhyay, IIT Bombay, India

For more information, please see the web site: www.me.iitb.ac.in/~santanu/cep

ADDRESS FOR CORRESPONDENCE

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