

### HALF DAY PHYSICAL COURSE

# "ECONOMICS OF INDUSTRIAL DECARBONIZATION"

BEM Approved CPD Hour: 3.0 | REF. NO.: IEM22/HQ/293/C

Presented by:

Prof. Santanu Bandyopadhyay
Department of Energy Science and Engineering, Indian Institute of Technology Bombay, India

12 AUGUST 2022 | FRIDAY | 1:00 PM - 5:30 PM

IMPIANA HOTEL, KLCC, KUALA LUMPUR

#### **Registration Fees - Subject to 6% SST**

ONLINE | NORMAL

: RM 100 | RM 150 IEM STUDENT MEMBER : RM 300 | RM 350 IEM GRADUATE MEMBER : RM 300 | RM 350 IEM CORPORATE MEMBER

: RM 500 | RM 550 NON-IEM MEMBER (LOCAL)

NON-IEM MEMBER (INTERNATIONAL): USD 135 (https://docs.google.com/forms/d/1\_OU7oHYnSowL5r-KgaBM3P\_j6l-auO5j3nda5LROuEc/edit)



# SYNOPSIS

One of the essential prerequisites for sustainable development and reducing the effects of climate change and global warming is decarbonizing the energy sector. The word "decarbonization" literally means the reduction of carbon dioxide emissions. Decarbonization is converting to an economic system to reduce and compensate for carbon dioxide (CO<sub>2</sub>) emissions and other greenhouse gases. The long-term goal is to create a CO<sub>2</sub>-free global economy. The industrial sector, in general, contributes significantly to the emission of atmospheric greenhouse gases. Industrial decarbonization represents the phasing out of carbon dioxide emissions from all aspects of industry without compromising competitiveness and prosperity. Economics plays a vital role in determining different pathways of industrial decarbonization. This workshop will discuss the economic merits of different industrial decarbonization measures. In this workshop, different economic merits for project appraisal, determination of cost of energy, cost of abated carbon, conservation supply curves, and marginal carbon abatement curve will be discussed. Fundamental theories will be discussed, and related problems will be solved in tutorial mode.

#### **Objectives**

- ·Understanding the importance of industrial decarbonization
- ·Understanding different economic merits for economic project appraisal
- ·Understanding quantities calculations of the cost of energy, cost of conserved energy, and cost of abated carbon
- ·Understanding visual representations of economic merits such as conservation supply and marginal carbon abatement curves.
- ·Hands-on calculations of different examples

# ABOUT SPEAKER

**Prof. Santanu Bandyopadhyay** is currently Praj Industries Chair Professor, Department of Energy Science and Engineering, at the Indian Institute of Technology Bombay (IIT Bombay). He is currently one of the Editors-in-Chief for Process Integration and Optimization for Sustainability (Springer Nature) as well as Associate Editors for the Journal of Cleaner Production (Elsevier), Clean Technologies and Environmental Policy (Springer Nature), and South African Journal of Chemical Engineering (Elsevier). His research interest includes Process integration, Pinch Analysis, Industrial energy conservation, Modelling and simulation of energy systems, Design and optimization of renewable energy systems, etc. Since 1994, Prof. Bandyopadhyay has been associated with and contributed towards various developmental, industrial, and research activities involving different structured approaches to process synthesis, energy integration and conservation, as well as renewable energy systems design. He has published over 300 technical articles in journals and conferences, and participated in many industrial projects. He is a fellow of the Indian National Association of Engineering (INAE).

# **PROGRAM**

13:00 – 14:00	Lunch at Tonka Bean Restaurant, Impiana Hotel
14:00 – 15:30	Importance of industrial decarbonization & Economic project appraisal
15:30 – 15:45	(Afternoon Coffee Break)
15:45 – 17:30	Tutorial session (numerical example solving) with Q&A
17:30	End

Cancellation Policy
No cancellation will be accepted prior to the date of the event. However, replacement or substitute may be made at any time with 7 days prior notification and substitute will be charged according to membership status.

#### **Personal Data Protection Act**

I have read and understood the IEM's Personal Data Protection Notice published on IEM's website at http://www.myiem.org.my and I agree to IEM's use and processing of my personal data as set out in the said notice.

"IEM reserves the right to alter or cancel the programme due to unforeseen circumstances at its discretion'.

For further details, kindly contact:
The Institution of Engineers, Malaysia
Bangunan Ingenieur, Lots 60/62, Jalan 52/4, P.O. Box 223 (Jalan Sultan), 46720 Petaling Jaya, Selangor Tel: 603-7968 4026 Fax: 603-7957 7678 Email: amira@iem.org.my