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**HALF DAY PHYSICAL COURSE**

# “ECONOMICS OF INDUSTRIAL DECARBONIZATION”

**BEM Approved CPD Hour: APPLYING**

**Presented by:**

**Prof. Santanu Bandyopadhyay**

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Technology Bombay, India

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

**IMPIANA HOTEL, KLCC, KUALA LUMPUR**



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	<u>ONLINE</u>	<u>NORMAL</u>
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# 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.

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