



## **Advanced HVAC Design for High-Performance Healthcare Facilities (MENA)**

### **Designing Toward Net-Zero Energy Commercial Buildings (MENA)**

**December 11, 2025**  
**10:00 am - 05:00 pm**

ASHRAE Pakistan Chapter Lecture Hall.

Organized by ASHRAE Global Training Center – Dubai  
In collaboration with ASHRAE Pakistan Chapter



ASHRAE GLOBAL TRAINING COMES TO KARACHI



## Advanced HVAC Design for High-Performance Healthcare Facilities (MENA)

**Duration:** 0.5 day (10:00 - 1300 Hrs) / 3 hours – 3 PDH

### Course Overview:

Learn how advanced HVAC design improves hospital performance, patient safety, and infection control.

### Learning Objectives:

- Identify key elements of high-performing hospitals and the role of HVAC systems.
- Understand HVAC's impact on infection prevention.
- Review engineering designs that enhance or hinder hospital performance.
- Apply ASHRAE Std. 170-2021 and Std. 241-2023 requirements.
- Define HVAC parameters: temperature, air changes, humidity, filtration.
- Recognize design considerations for ORs, Imaging Suites, labs, pharmacies, and isolation rooms.
- Evaluate impacts on patient safety, facility quality, and outcomes.

### Agenda:

#### Part 1 – 1.5 hours: High-Performing Hospital Essentials

- Safety, Reliability, Maintenance, Energy, Adaptability
- Best Practices & Design Checklist

#### Part 2 – 1.5 hours: Ventilation in Healthcare Facilities

- Purpose, Scope, Compliance, Planning, Systems & Equipment, Room Design
- Q&A

### Who Should Attend

- HVAC engineers and designers working on healthcare projects
- Facility managers of hospitals and clinics
- Infection control and hospital safety officers
- Architects and consultants involved in healthcare facility design
- Technical staff responsible for operation and maintenance of hospital HVAC systems
- Students





## Designing Toward Net-Zero Energy Commercial Buildings (MENA)

**Duration:** 0.5 day (1400 -1700 Hrs) / 3 hours – 3 PDH

### Course Overview:

Gain practical strategies to design commercial buildings that achieve net-zero energy performance through efficient systems and renewable energy integration.

### Learning Objectives:

- Apply design strategies for NZEBs.
- Understand principles of energy-efficient building design and operations.
- Assess energy, environmental, and economic performance.

### Agenda:

- Defining NZEBs & Importance
- CO<sub>2</sub>, Climate Context & Net-Zero Targets
- Case Studies & Examples
- Energy Consumption & Design Standards
- NZEB Design Principles

### Who Should Attend

- Building engineers and energy consultants
- Architects and designers focused on sustainable buildings
- Facility and operations managers
- Developers and owners of commercial buildings
- Professionals seeking practical knowledge on net-zero energy building design
- Students





# ASHRAE Global Training – Karachi, MENA

Gain In-Depth, Practical Knowledge to Succeed

## About The Instructor:

### Samir Traboulsi, Ph.D., P.Eng., Fellow Life Member ASHRAE

Dr. Samir Traboulsi is a globally recognized expert in sustainable building design and energy efficiency. With extensive experience in designing high-performance HVAC systems for commercial, institutional, and healthcare facilities across the MENA region, he combines technical expertise with practical implementation strategies.

**As a Fellow Life Member of ASHRAE**, Dr. Traboulsi has contributed to key ASHRAE standards and publications, and he regularly conducts training programs worldwide to help engineers, architects, and facility managers achieve energy-efficient, net-zero building goals.

His approach emphasizes **practical, actionable knowledge**, enabling attendees to apply concepts immediately to real-world projects.



## Event Details

- Date: 11 December 2025
- Venue: ASHRAE Pakistan Chapter
- Address: Plot No. 27-C, Lane No. 11, Phase-6, DHA Karachi

### Course Fee : PKR 10,000

ASHRAE and YEA Members : PKR 7,500

**Registration Deadline:** 08 December 2025

### For registration:

**Mohammad Hamid**

Chair YEA Committee

Cell: 00333 30041250

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**ASHRAE Pakistan Chapter**

**Earn 6 PDHs by attending both sessions!**

LIMITED SEATS. CERTIFICATES AND PDHS  
AWARDED UPON COMPLETION.





# INVITATION



## Smart Decar**o**nization: Integrating AI, Innovation, and Sustainability in Pakistan

12 - 13 December 2025 | Karachi Marriott Hotel



*For Details on Papers & Online Registration*

[www.ashraepakistan.com/hvacr-trend](http://www.ashraepakistan.com/hvacr-trend)

\*CPD points will be awarded.

