



## **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

**HVACR TRENDS**  
EXPO - TECH TALK - FORUMS



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## 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



## 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 Decarbonization: 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.

