

## ASHRAE's MISSION & VISION

### Mission

To serve humanity by advancing the arts and sciences of heating, ventilation, air conditioning, refrigeration and their allied fields.

### Vision

A healthy and sustainable built environment for all.

### Editorial Team

*Ir. Leong Siew Meng*

*Ir. Dr. Khoo Chun Yong*

\* \* \* \* \*

### MASHRAE Secretariat:

Unit 518 Block A,  
Kelana Business Centre,  
97, Jalan SS7/2,  
47301 Petaling Jaya,  
Selangor Darul Ehsan.

**ASHRAE  
Malaysia Chapter  
37<sup>th</sup> Annual Dinner**

**30 September 2022**

# GREETINGS FROM THE PRESIDENT

Part 1 of 2

It has come to the end of the term for 2021-2022 session. With great supports from our sponsors, partner organizations, and members, ASHRAE Malaysia Chapter has achieved yet another great height in 2021-2022. The Chapter scored more than 19,000 points in the ASHRAE Presidential Award of Excellence (PAOE, a society-wide point system to track and reward chapter achievements) that included numerous Government Advocacy activities, workshops, webinars, seminars, and other chapter activities. With the relaxation of the standard operating procedures (SOPs) by Ministry of Health Malaysia, the Chapter was also managed to organize a physical MP and RP Night on 20<sup>th</sup> May 2022 which received overwhelming response and participation by our members and Research Promotion donors. The 37<sup>th</sup> Annual General Meeting was also successfully held on 27<sup>th</sup> May 2022 in hybrid mode where the new Board of Governors for the term of 2022-2023 were elected.

The formation of the *Local Chapter Epidemic Task Force* enables the Chapter to respond and perform more effectively to inquiries. The success in organizing the two IAQ webinars related to Covid-19 pandemic together with the release of the MASHRAE Ventilation Calculator (MVC) have benefited the members and the public for effective measures of mitigating the spread of air-borne diseases.

Our BOG and committee members have been actively working with various government departments and NGOs. These include the drafting of the guidance notes on ventilation and indoor air quality (IAQ) during the COVID-19 by DOSH, Indoor Environmental Quality (IEQ) guidelines

*(Continued on next page)*



**Ts. Dr. King Yeong Jin**  
**President ASHRAE**  
**Malaysia Chapter**  
**2021-2022**

# GREETINGS FROM THE PRESIDENT

Part 2 of 2

*(Continued from previous page)*

by JKR and SIRIM, etc. The Chapter also supported the Engineer 2022 – the Malaysia's 1<sup>st</sup> Engineering Exhibition and Conference organized by The Institution of Engineers, Malaysia and MARVEX by MACRA.

With the leadership from the *Chapter Sustainability Committee*, the Chapter has successfully organized the first DOE Roadshow on 26<sup>th</sup> May 2022 and few more to come in the near future. I believe the Chapter's Committee has done a great job and meet the Society's theme of "Personal Growth, Global Impact. Feed the Roots" by contributing their personal time and efforts in contributing towards the Chapter's continued growth.

Since the implementation of Movement Control Order (MCO) in March 2020, we have not been able to meet with everyone face-to-face except for some small-scale events. We are delighted to organize the 37<sup>th</sup> Annual Dinner on 30 September 2022 at Connexion Conference & Event Centre, Bangsar South. I really hope that all can join us in this wonderful event where it is always one of our most celebrated and important events in HVAC&R industry.

With the newly-elected Board of Governors and Chapter Chairs, I do hope that ASHRAE Malaysia Chapter will continue to serve our members, community and the nation for a better future. Looking forward to your continued support and another fruitful term of 2022-2023.



**Ts. Dr. King Yeong Jin**  
**President ASHRAE**  
**Malaysia Chapter**  
**2021-2022**

## LETTER OF INVITATION TO PARTICIPATE IN ASHRAE MALAYSIA CHAPTER'S 37<sup>TH</sup> ANNUAL DINNER

**Venue : Connexion Conference & Event Centre, Bangsar South, Kuala Lumpur**

**Date : 30 September 2022 (Friday)**

This is to announce that the **ASHRAE Malaysia Chapter's Annual Dinner** is back, after a 2-year gap due to the unprecedented Covid-19 Pandemic. With great pleasure, we invite you to participate in ASHRAE Malaysia Chapter's 37th Annual Dinner. It is a night where all Chapter members, consultants, developers, contractors, manufacturers, suppliers, and friends will get together, celebrate & commemorate the achievements towards the advancement of the arts and sciences of heating, ventilating, air-conditioning, and refrigerating. It is also time again for old and new friends to finally meet up, share ideas, and have fun getting-to-know each other better.

MASHRAE, as a learned society and a non-profit organization, would like to take this opportunity to invite you to join us in this great event, and to help to raise funds for promoting the objectives of the Chapter in the progression of HVAC industry. We are grateful for the help provided by our sponsors like you, as your contributions have played a momentous role in the advancement of the HVAC industry over the years, and we are immensely thankful to our past, present, and future sponsors.

We are confident with your continuous support, MASHRAE and the HVAC industry will continue to improve & flourish, reaching new heights, achieving milestones in the many years ahead. Many thanks in advance and we look forward to meeting all of you at ASHRAE Malaysia Chapter's 37th Annual Dinner.

Yours sincerely,

**TEE TONE VEI**

Organizing Chairman of 37<sup>th</sup> Annual Dinner

ASHRAE Malaysia Chapter

# ASHRAE Malaysia Chapter 37<sup>th</sup> Annual Dinner

## 30 September 2022 (Friday)

### ANNOUNCEMENT

#### Part 2 of 2



#### PLATINUM SPONSOR – RM 42,800.00

- a) 4 pages advertisement in Souvenir Program E book
- b) Advertisement display in Digital Billboard
- c) 2 Physical Billboard
- d) 2 Exhibition Booth
- e) 1 Dinner Table (8 seats)
- f) Website Logo display on corner and bottom bar
- g) HVAC Student Design Competition Platinum Sponsor
- h) Research Promotion Donor
- i) Bunting display in DL talks for one year
- j) Logo display in MASHRAE office for one year
- k) One hours Lecture time for Annual dinner Seminar

#### GOLD SPONSOR – RM 28,800.00

- a) 3 pages advertisement in Souvenir Program E book
- b) Advertisement display in Digital Billboard
- c) 1 Exhibition Booth
- d) 1 Dinner Table (8 seats)
- e) Website Logo display on bottom bar
- f) HVAC Student Design Competition Gold Sponsor
- g) Research Promotion Donor
- h) Bunting display in DL talks for one year
- i) Logo display in MASHRAE office for one year

#### SILVER SPONSOR – RM 18,800.00

- a) 2 pages advertisement in Souvenir Program E book
- b) Advertisement display in Digital Billboard
- c) 1 Exhibition Booth
- d) 1 Dinner Table (8 seats)
- e) Website Logo display on bottom bar
- f) HVAC Student Design Competition Silver Sponsor
- g) Research Promotion Donor

#### BRONZE SPONSOR – RM 13,800.00

- a) 1 page advertisement in Souvenir Program E book
- b) Advertisement display in Digital Billboard
- c) 1 Exhibition Booth
- d) 1 Dinner Table (8 seats)
- e) HVAC Student Design Competition Bronze Sponsor
- f) Research Promotion Donor

#### BRONZE SPONSOR (Without Billboard Display) – RM 9,800.00

- a) 1 page advertisement in Souvenir Program E book
- b) 1 Exhibition Booth
- c) 1 Dinner Table (8 seats)
- d) HVAC Student Design Competition Bronze Sponsor
- e) Research Promotion Donor

#### FULL PAGE ADVERTISEMENT – RM 3,200.00

- a) 1 Full-Page advertisement in Souvenir Program E book
- b) 2 complimentary dinner tickets

#### HALF PAGE ADVERTISEMENT – RM 2,800.00

- a) 1 Half-Page advertisement in Souvenir Program E book
- b) 1 complimentary dinner ticket

#### DINNER TICKET & TABLE FOR ANNUAL DINNER

- a) Dinner Table (8 seats/table) @ RM 2280 each
- b) Dinner Ticket @ RM285 each

#### LUCKY DRAW / DOOR GIFT

We are please to contribute .....  
OR please to sponsor ..... (Please specify)

Total RM .....

#### Contact ASHRAE Malaysia Chapter

Miss Nur  
Mobile : +60 11-15744931  
Fax : +603 7887 5886  
E-mail : [mashrae.my@gmail.com](mailto:mashrae.my@gmail.com)

# Independent Commissioning Specialist (iCxS) Competency Course # 1



## Independent Commissioning Specialist (iCxS) Competency Course # 1

The MASHRAE iCxS Competency Course is a 3-day training course that covers all aspects of commissioning related to green buildings and industrial processes.

The course is open to all. Those desiring to become Competent iCommissioning Specialists must complete the 3-day course and pass the MASHRAE iCxS Examination.

**CLOSING DATE FOR REGISTRATION: 25 July 2022 @ 5.00PM**

### COURSE PROGRAM

TIME	6 AUGUST (SAT)	7 AUGUST (SUN)	8 AUGUST (MON)
8:45am – 9:00am	<b>Registration</b>		
9:00am – 9:45am	Introduction to Commissioning Standards & Practice	iCxS inputs for related Green Building Rating (GBI/MyCREST) criteria & credits - Part 3	Demonstration of commonly used instruments by iCxS in performance verification and quality-based sampling.
9:45am – 10:30am	Role & Responsibility of iCxS		
10:30am – 10:45am	<b>Tea Break</b>		
10:45am – 1:00pm	iCxS deliverables for DA & CVA	iCxS inputs – Part 4	Hands-on experience with instruments such as mobile data logger, digital power meters, etc.
1:00pm – 2:00pm	<b>Lunch Break</b>		
2:00pm – 4:00pm	iCxS inputs for related Green Building Rating (GBI/MyCREST) criteria & credits- Part 1	iCxS inputs- Part 5	MCQ Examination (70 Questions- open book)
4:00pm – 4:15pm	<b>Tea Break</b>		
4:15pm – 4:45pm	iCxS inputs- Part 2	Additional iCxS deliverables for: Façade Commissioning, SRI measurement, Innovations, etc.	Q&A on Project Assignment
4:45pm – 5:30pm		Exam Briefing & Project Assignment- Commissioning Report	<b>End of Day 3</b>
5:30pm – 6:00pm			
6:00pm	<b>End of Day 1</b>	<b>End of Day 2</b>	

- The project assignment must be submitted before noon Thursday, 25 August 2022.
- The 1-hour project presentation will be held on 27 August 2022 or 28 August 2022.
- The course program is subject to change without further notice.

## ANNOUNCEMENT

Part 1 of 2



### PRE-REQUISITES

For participants who intend to become Competent MASHRAE i-Commissioning Specialists, there are a number of pre-requisites. You must:

1. Attend at least 75% of the iCxS Competency course, **AND**
2. Pass the iCxS Examination.

You must also possess one of the following qualifications:

1. Is a technical personnel with at least 10 years relevant experience in design office and field commissioning works, and has obtained certification from other MASHRAE recognised training programmes such as TABB certified supervisor, ASHRAE, NEBB, ACG, BCxA and CSA; **OR**
2. Is an engineer registered with BEM or a registered architect with LAM, with more than 5 years of testing and commissioning experience in building services, **OR**
3. Is a competent electrical engineer or supervising engineer registered with Suruhanjaya Tenaga.

### EXAMINATION

The examination comprises a 2-hour multiple choice question paper and an individual project assignment & presentation.

Only participants who intend to become Competent MASHRAE iCxS are required to sit for the examination.

Upon passing the examination, you may then apply to be registered as a Competent MASHRAE iCxS. (Existing registered GBI CxS may apply to register as MASHRAE iCxS on a case-to-case basis without the need to attend and pass the MASHRAE iCxS examination).

#### VENUE

MASHRAE Secretariat  
Unit 518 Block A, Kelana Business  
Centre, No. 97, Jalan SS7/2, 47301  
Petaling Jaya, Selangor Darul Ehsan.

Waze @ ASHRAE Malaysia Chapter

#### COURSE DATES

6 August 2022 (Saturday)  
7 August 2022 (Sunday)  
8 August 2022 (Monday)

#### EXAM DATE

27 August 2022 (Saturday)  
28 August 2022 (Sunday)

#### COURSE FEE

RM1200 (iCxS Course with exam)  
RM1000 (iCxS Course without exam)

# Independent Commissioning Specialist (iCxS) Competency Course # 1

ANNOUNCEMENT

Part 2 of 2



## REGISTRATION FORM MASHRAE iCxS Competency Course



COURSE	DATE	FEE
<input type="checkbox"/> iCxS Course without Examination	<u>Course Dates</u> 6 Aug 2022 (Saturday) 7 Aug 2022 (Sunday) 8 Aug 2022 (Monday)	RM1000
<input type="checkbox"/> iCxS Course with Examination	<u>Exam Date</u> 27 Aug 2022 (Saturday) 28 Aug 2022 (Sunday)	RM1200

\*Course fees include training notes and exam fees.

\*Lunch and Tea breaks are provided

## Applicant Details

TITLE AR / IR / SR / MR /  
MS / OTHER

IC NO.

FULL NAME (Please  
Underline Surname)

COMPANY NAME

CONTACT PERSON

COMPANY ADDRESS

POSTCODE

TOWN/CITY

STATE

TEL NO.

FAX NO.

HP NO.

EMAIL

## Please answer the following questions:

I am attending the Competent iCxS Course (Select one only)

☐ To become a Competent i-Commissioning Specialist ☐ For knowledge

I am sitting for the Competent iCxS Course Examination

☐ Yes ☐ No

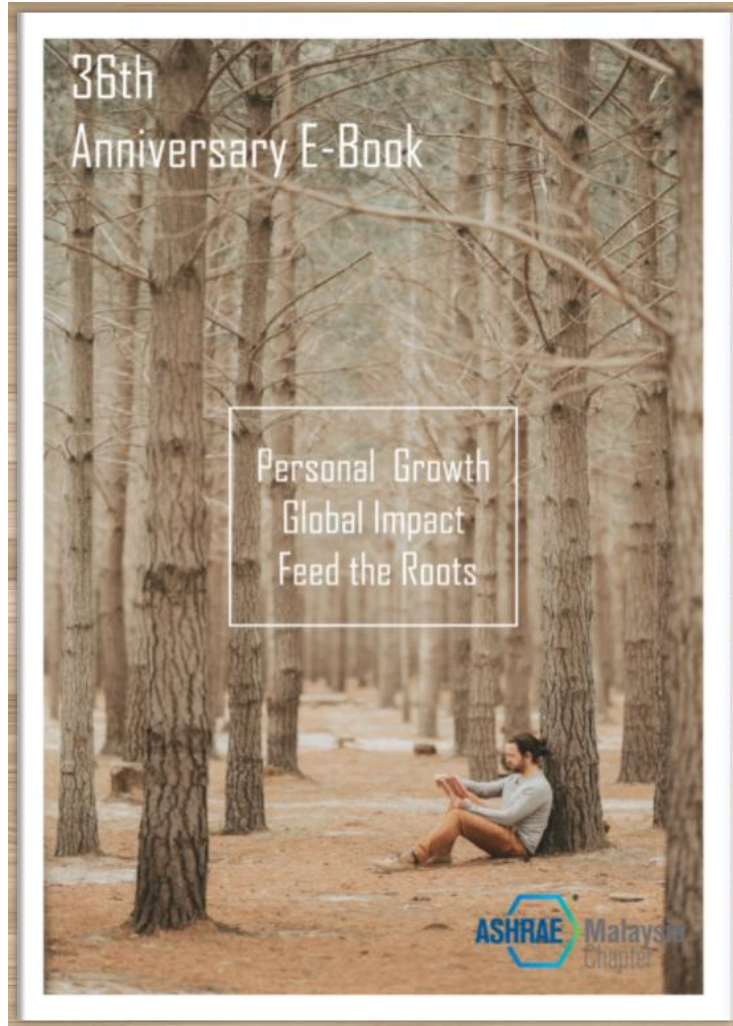
My position: Architect / Civil Engineer / Mechanical Engineer /

Electrical Engineer / Surveyor / Other (Please State):

Payment Method: Online Banking / Cheque  
(Upon approval of application)

Kindly submit your registration form to [mashrae.my@gmail.com](mailto:mashrae.my@gmail.com) OR  
contact Cik Nur +6011-1574 4931 for more information.

- Registration is on first - come - first - served basis as place is limited.
- Registration will be confirmed upon payment of course fees.
- Any cancellation of registration after the closing date is not refundable.



## ASHRAE Malaysia Chapter 36<sup>th</sup> Anniversary E-Book

ASHRAE Malaysia Chapter published the second E-book to mark its 36<sup>th</sup> Anniversary celebration.

[Link to ASHRAE Malaysia Chapter 36th Anniversary E-Book](#)



**Ir. Ong Ching Loon**  
Past President

On being conferred the Johan Setia Mahkota (J.S.M.) by DYMM Yang Di Pertuan Agong on the occasion of His Majesty's Birthday on 6 June 2022

## CONGRATULATIONS



**Ir. Leong Siew Ming**  
Past President

On being transferred to the membership grade of Fellow, The Institution of Engineers, Malaysia (F.I.E.M.)



**Ir. Ng Yong Kong**  
Past President

On being transferred to the membership grade of Fellow, The Institution of Engineers, Malaysia (F.I.E.M.)

# Roadshow: Ozone2Climate Technologies in Refrigeration and Air-Conditioning Sector

ANNOUNCEMENT



## Roadshow

### OZONE2CLIMATE TECHNOLOGIES IN REFRIGERATION AND AIR-CONDITIONING SECTOR

#### TOPIC HIGHLIGHTS

- ▶▶▶ Malaysia's Status in the Montreal Protocol - HPMP Implementation
- ▶▶▶ Revolution and Evolution of Refrigerants
- ▶▶▶ Low GWP Refrigerants Chiller
- ▶▶▶ Natural Refrigerants : Coming Full Circle - Naturally
- ▶▶▶ Moving Forward with R32 Refrigerant
- ▶▶▶ MS2678:2017 Flammable Refrigerant System Code of Practice - Overview

Next Roadshow:  
Kuala Lumpur  
27 September 2022

Upcoming Roadshow  
(To be announced)

▶▶▶ Kuala Lumpur  
September 2022

▶▶▶ Kota Kinabalu  
March 2023

▶▶▶ Kuching  
January 2023

▶▶▶ Pulau Pinang  
May 2023

Click [HERE](#) for registration

Available seats are *on first-come, first-served basis*

Contact Us :



Miss Nur +06011 1574 4931



mashrae.my@gmail.com

Organised by :



Supported by :



# Do you know?

RESEARCH  
PROMOTION



ASHRAE funded the ASHRAE RESEARCH PROGRAM which is the backbone of the Handbooks, Journal, Standards & Certification

This program funds more than 80 investigative projects around the world. It is supported by more than 100 member-led Technical Committees (TCs), each with their own specialty and sub-specialty.



We need your support for continuous development of technical information to create standards and guidelines, which serve as the basis for testing and design practices around the world.  
**100%** of all research donations go to Research!

Thank you for  
supporting us!

**MP & RP Night  
20 MAY 2022**

For more information on research promotion & how you can support, contact our local chapter RP Chair at **+6012-6610859** (TS Lim)

Support us at  
[www.ashrae.org/contribute](http://www.ashrae.org/contribute)

# MP & RP Networking Night 2022

MEMBERSHIP PROMOTION  
RESEARCH PROMOTION



## MP & RP Networking Night 2022

On 20<sup>th</sup> May 2022 (Friday), both Membership Promotion (MP) Chair and Research Promotion (RP) Chair, together with their committee members jointly organized the MP & RP Networking Night 2022 at Secret Of Louisiana at the Lake, Kelana Jaya, Selangor. A total of 83 ASHRAE members (included BOGs, fellow Chairs and committee), invited guests, and fellow sponsors were gathered for catching up with each other after the long-awaited networking session. President of ASHRAE Malaysia Chapter, Dr. King Y.J. welcomed all participants. MP Chair shared on the benefits as member of ASHRAE. RP Chair shared on the various resources structured under the umbrella of ASHRAE in promoting the continuous advancement of HVAC&R technologies including the efforts in contributing to a greener environment. Tokens of appreciation recognition were given away to fellow RP donors.



Time	Description
6.00PM-7.00PM	Registration
7.00PM-8.00PM	Networking & Dinner Served
8.00PM-9.00PM	President's speech MP Chair speech RP Chair speech Recognition of RP Donor
9.00PM-9.30PM	Networking (Cont.)
9.30PM-10.00PM	Lucky Draw
10.00PM	End





## Another milestone achieved by ASHRAE Malaysia Chapter!

ASHRAE Malaysia Chapter is now the registered training provider under the Human Resources Development Fund (HRDF) Malaysia, the agency under The Ministry of Human Resources Malaysia.

**ASHRAE EPIDEMIC TASK FORCE** is formed to deploy ASHRAE's technical resources to address current pandemic and future epidemics: -

- HVAC System Operation during Building Shutdown
- How to Return the HVAC System to Normal Operation
- Operating of Heating/Cooling System in Home
- Healthcare Facilities, Commercial, Residential, Schools and Universities, Residential, Transportation
- Riding Mass Transit and Airlines
- Upgrading Filters and Use of Air Cleaners
- Ventilation Systems
- Exhaust Systems
- Filtration and Disinfection
- BAS and Access Control Systems
- Elevator Control
- Water Systems
- Air Conditioning and Heating

For more information, visit to [www.ashrae.org/covid19](http://www.ashrae.org/covid19)

# DOE Roadshow 2022-2023 : Ozone2Climate Technologies in Refrigeration and Air-Conditioning Sector

EVENTS & NEWS



On 26<sup>th</sup> May 2022, the ASHARE Malaysia Chapter and Department of Environment (DOE), Ministry of Environment and Water, Malaysia, were jointly organized the *DOE Roadshow 2022-2023: Ozone2Climate Technologies in Refrigeration and Air-Conditioning Sector* at Renaissance Hotel, Johor Bahru, Johor, from 9:00AM to 4:30PM.

“Replacing HCFC Refrigerants with Low GWP Fluids” is the theme of this series of roadshows. This series of roadshows are organized in conjunction with the continuous efforts of Malaysia Government in populating and strengthening the awareness of the phase-out of hydrofluorocarbon (HCFC) based refrigerants in which aligned with the implementation of “Malaysia HCFC Phase-Out Management Plan (HPMP)”.

HPMP program is expected to prevent ozone depletion, greenhouse gas emissions and climate change. This benefits the people ultimately. HCFC production and consumption by the industry will be phasing out as per the agreed schedule and transitioning to non-HCFC and low global warming potential technologies.

This roadshow introduces the possibilities of applying low GWP fluids as the alternative refrigerant in air conditioning and refrigeration systems.

Fellow participants who attended this roadshow in Johor Bahru obtained a copy of informative report namely “Malaysia HCFC Phase-Out Management Plan (HPMP Stage-2) 2017-2022”.



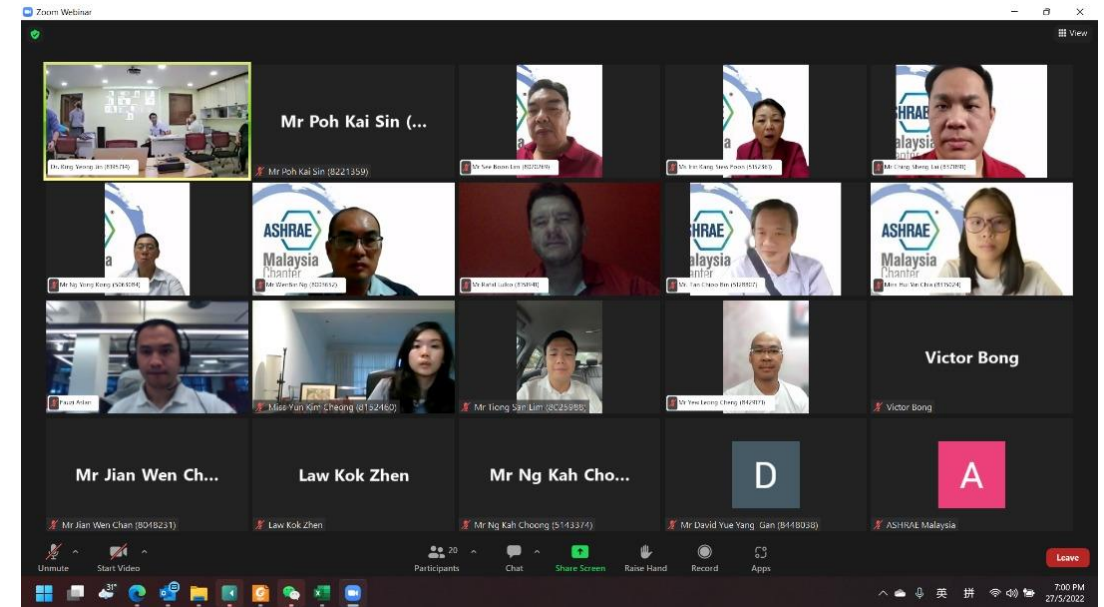
# 37<sup>th</sup> Annual General Meeting (AGM)

On 27<sup>th</sup> May 2022, the 37<sup>th</sup> Annual General Meeting (AGM) of ASHRAE Malaysia Chapter was held at ASHRAE Malaysia Chapter Secretariat office and with hybrid mode via Zoom Platform. A total of 35 attendees attended the AGM.

The agenda of AGM was as follows:-

- 1) President's welcome note.
- 2) To confirm and adopt the Minutes of last Annual General Meeting held on 28th May 2021
- 3) To receive the Secretary's Report for the year 2021/2022
- 4) To receive the Audited Treasurer's Report for the year ending 31 December 2021
- 5) To elect members of the Board of Governors for the year 2022-2023
- 6) To elect Nominating Committee 2022-2023
- 7) To nominate of 3 representatives under Sijil Pelantikan Pegawai Harta
- 8) Other matters arising

The meeting was adjourned at 8:00 p.m.



# ASHRAE Conventus 2022: Networking Night

## Organized by UTAR ASHRAE Student Branch

EVENTS & NEWS



### Networking Night

PROGRAMME FLOW

- GREETING BY CHAIRPERSON
- ICE BREAKING
- AWARD CEREMONY
- COMPANY SHARING SESSION
- LUCKY DRAW
- MINIGAME

Date : 17th June 2022  
Time : 7pm - 10.30pm  
Venue : KB 521 & 522

REGISTER NOW!

ASHRAE CONVENTUS (Instagram icon)  
ASHRAE CONVENTUS (Facebook icon)

For more inquiries, kindly contact:  
019-4108012 (Yew Jing Wen)

### Highlights:

- Ice breaking & networking session
- HVAC Design Calculations Competition - Poster Sharing
- HVAC Design Calculations Competition - Award Ceremony
- Sharing sessions by the invited speakers of participating companies.
- Lucky draw & game session



# ASHRAE Region XIII – Regional Planning Meeting No.2 (2021-2022)



In light of dynamic situation in Taiwan due to Covid-19, ASHRAE Taiwan Chapter as the host of Regional Planning Meeting No.2 (RPM-2, 2021-2022) had conducted this RPM-2 via virtual platform, for both Business Session (Day 1, 11 June 2022) and Workshop Session (Day 2, 12 June 2022). All regional officers, all delegates and alternates, Section Chairpersons, as well as the committee members of respective chapters and sections had attended this meeting. The Director and Regional Chair, Dr. Apichit Lumlertpongpana called the Business Session to order at 7:30 a.m. (Thailand time GMT +7.0) on Day-1 and called the Workshop Session to order at 7:00 a.m. (Thailand time GMT +7.0) on Day-2.

Business Session (11<sup>th</sup> June 2022)

Country	Start	End
Myanmar	7:00am	11:00am
Thailand, Jakarta, Vietnam	7:30am	11:30am
Singapore, Hong Kong, Malaysia, Taiwan, Macao, Philippines	8:30am	12:30pm
Japan, South Korea	9:30am	1:30pm

Workshop Session (12<sup>th</sup> June 2022)

Country	Start	End
Myanmar	6:30am	11:00am
Thailand, Jakarta, Vietnam	7:00am	11:30am
Singapore, Hong Kong, Malaysia, Taiwan, Macao, Philippines	8:00am	12:30pm
Japan, South Korea	9:00am	1:30pm



ASHRAE Taiwan Chapter hosted PRM-2 via virtual platform.

# Board of Governors' Meeting No. 10 & 11 (Session 2021/22)

## Board of Governors' Meeting No. 10 (Session 2021/22)

On 26<sup>th</sup> April 2022, the Board of Governors' Meeting No. 10 was held at ASHRAE Malaysia Chapter Secretariat office and with hybrid mode via Zoom Platform. A total of 25 committee members attended the meeting. The President, Ts. Dr. King Yeong Jin called the meeting to order at 6:15 p.m.

The agenda discussed:

- 1) Financial report
- 2) PAOE 2021-22 – YTD March 2022
- 3) Activities report and Chapter Chairs' updates including Kuching Section and Penang Section
- 4) Chapter operation
- 5) Industry events.

The meeting was adjourned at 8:30 p.m.

## Board of Governors' Meeting No. 11 (Session 2021/22)

On 17<sup>th</sup> May 2022, the Board of Governors' Meeting No. 11 was held at ASHRAE Malaysia Chapter Secretariat office and with hybrid mode via Zoom Platform. A total of 19 committee members and 1 invitee attended the meeting. The President, Ts. Dr. King Yeong Jin called the meeting to order at 6:30 p.m.

The agenda discussed:

- 1) Financial report
- 2) PAOE 2021-22 – YTD April 2022
- 3) Activities report and Chapter Chairs' updates including Kuching Section and Penang Section
- 4) Chapter operation
- 5) Region XIII – RPM2 2021/22
- 6) ASHRAE Malaysia Chapter 37<sup>th</sup> Annual Dinner
- 7) Industry events.

The meeting was adjourned at 8:30 p.m.

# Board of Governors' Meeting No. 12 (Session 2021/22)

On 21<sup>th</sup> June 2022, the Board of Governors' Meeting No. 12 was held at ASHRAE Malaysia Chapter Secretariat office and with hybrid mode via Zoom Platform. A total of 25 committee members attended the meeting. The President, Ts. Dr. King Yeong Jin called the meeting to order at 6:30 p.m.

The agenda discussed:

- 1) Financial report
- 2) PAOE 2021-22 – YTD April 2022
- 3) Activities report and Chapter Chairs' updates including Kuching Section and Penang Section
- 4) Chapter operation
- 5) Region XIII – RPM2 2021/22
- 6) ASHRAE Malaysia Chapter 37<sup>th</sup> Annual Dinner – preparation & status of sponsorship recruitment drive
- 7) Industry events.

The meeting was adjourned at 7:45 p.m.



## Coming Up Events



<https://crc2022.net/>

### 21 Aug 2022 (Sun)

Regional Planning Meeting No.1 (RPM-1), RIHGA Royal Hotel, Tokyo, Japan

### 7-8 Oct 2022 (Fri-Sat)

16th Asia Pacific Conference on the Built Environment (APCBE):  
Net Zero Strategies for Existing Buildings, Studio City Macau  
[<https://www.ashraemacao.org/apcbe2022>]



By: **Chew Soon Jin**

Technical Director, NRS Process Systems Sdn Bhd;  
Penang Section Chairman & Refrigeration Chair,  
ASHRAE Malaysia Chapter.

*The views expressed here are personal and do not necessarily reflect ASHRAE's position.*

**O**ur lives are dependent on cooling or freezing systems today, especially in a warm and humid climate like ours. Comfort cooling is an essential part of our lifestyle.

Our homes need refrigerators to keep our food fresh. We get ice from the fridge or buy cold drinks from vending machines.

However, these cooling and freezing systems are power guzzlers and many use synthetic coolants or refrigerants that are potent greenhouse gases that contribute to global warming and climate change.

Natural refrigerants were mostly replaced by synthetic refrigerants called Chlorofluorocarbons (CFCs). Due to demand, they were massively produced, but they were found to deplete the ozone layer. So it got banned and was replaced with Hydrofluorocarbons (HFC) refrigerants.

HFC refrigerants are now found to cause global warming due to their properties. They are being phased down and will eventually not be available. So new refrigerants are needed to replace it.

While CFCs were banned some 20 years ago, scientists are still monitoring how much the ozone layer has healed. When these refrigerants remain in the system, it does not pollute.

It's when it leaks out or equipment is disposed of that the refrigerant is released into the atmosphere. Imagine thousands of air-conditioners sent to junkyards globally. The impact is tremendous.

As CFCs and HFCs are highly stable chemicals and many can remain in the atmosphere for years, some for hundreds of years, monitoring the effects and impact of these synthetic refrigerants can take a long time.

Proper disposal of refrigerants is an issue that many do not address adequately. Today, many countries, including Malaysia, have banned the release of CFC and HCFC refrigerants into the atmosphere.

Entire industries grew and expanded due to high demand for more cooling and freezing equipment. It is wasteful to keep changing equipment that use CFC to HFC refrigerants.

*(Continued on next page)*

*(Continued from previous page)*

Many supermarkets or stores had to rip out their CFC system and switch to HFC types so that they are environmentally friendly with cost impact. But the cost of doing nothing could be worse.

Another issue is that cooling and freezing systems often consume more than 70 per cent of your power bills. When it gets hot, we tend to buy more air-conditioners, and that adds to the problem.

When you buy a new air-conditioner, have you ever wondered where you send the old unit to, or what happens to it?

We need to reduce energy demand and use refrigerants that do not pollute. Together these aspects can reduce our carbon footprint, which impact global warming and climate change.

Many ways are possible. Through the use of technology, design, materials or even shade can help reduce energy demand, which makes your cooling systems smaller, saving power and not polluting the environment.

For example, our office uses a green wall to deflect heat and trees are planted for shade. The office also uses insulation and an ammonia air-conditioning system, and all these reduce our

energy demand, so our air-conditioning system is much smaller than traditional systems.

While no perfect refrigerant exists yet, new organic refrigerants called HydroFluoroOleofins (HFO) with low GWP are becoming available to replace HFC refrigerants.

Many traditional natural refrigerants like ammonia, carbon-dioxide and some hydrocarbons like isobutane and propane are also available.

Natural and new organic HFO refrigerants decompose within days when released into the atmosphere and do not deplete the ozone or have very low impact on global warming.

However, each refrigerant type (whether HFC, Natural or HFO) has its own properties and hazards. So talk to your system specialist about your needs.

Doing nothing may no longer be an option. We need to contribute to efforts to being environmentally neutral.

Source: This article was exacted from [New Straits Times](#), dated 27 August 2021.

## MASHRAE – DOE Meeting on Roadshow: Ozone2Climate Technologies in Refrigeration and Air-Conditioning Sector

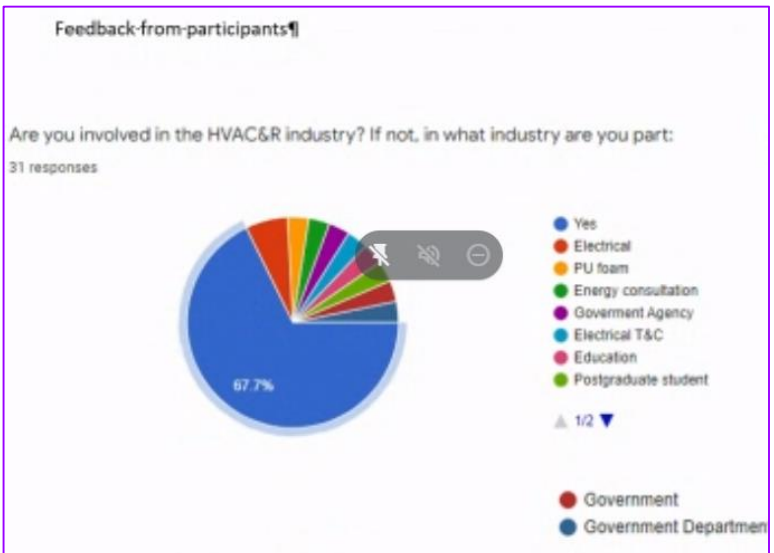
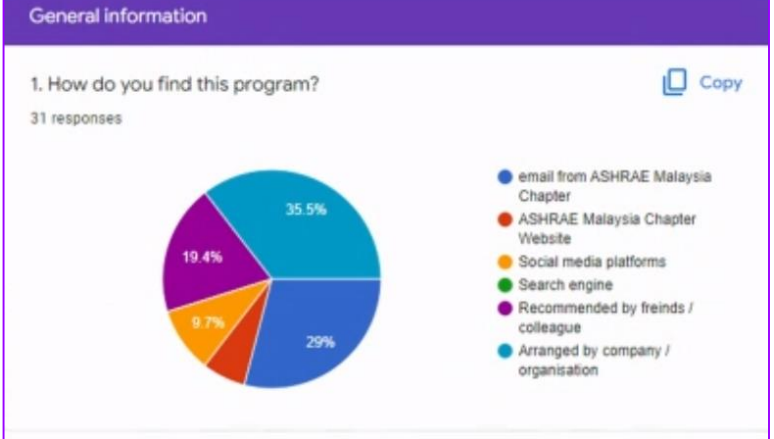
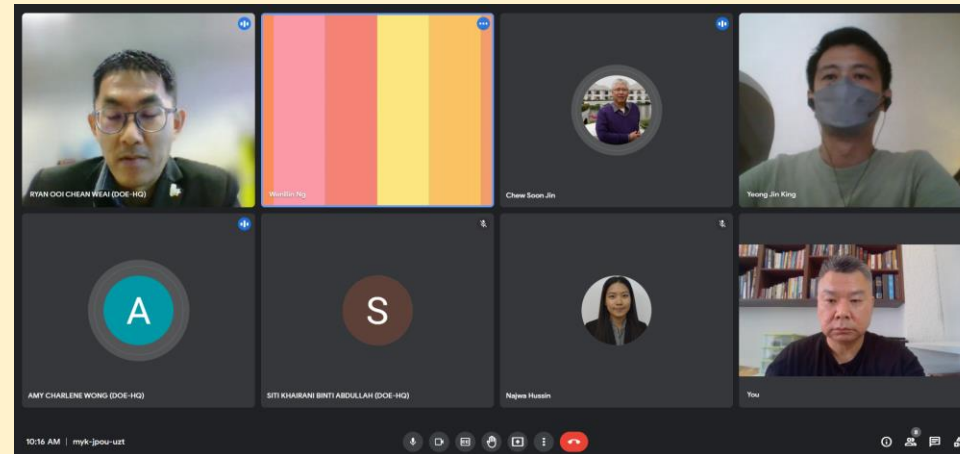
Date & Time: 10<sup>th</sup> June 2022; 9:30 A.M. ~ 10:30 A.M.

Organizer : MASHRAE and Department of Environment, Ministry of Environment and Water, Malaysia

ASHRAE Malaysia Chapter Representative : Ts. Dr. King Yeong Jin, Mr. Chea Swei Keong, Mr. Chew Soon Jin

### Agenda:

1. Proposed date and venue for upcoming Roadshow in Kuala Lumpur, Kuching (Sarawak), Kota Kinabalu (Sabah), and Penang.
2. Review of recent Roadshow in Johor Bahru, Johor.
3. Discussion on topics related to:
  - Green Building (HVAC related)
  - Refrigerant R-32
  - DOE on Certified Service Technician Program (CSTP) in handling refrigerant, including handling flammable refrigerant.





Malaysia Energy Efficiency and Solar Thermal Application Project (MAEESTA)

## Terminal Event & Certificate Presentation Ceremony UNIDO MAEESTA



Date : 28<sup>th</sup> June 2022

Time : 8:00 A.M. ~ 5:00 P.M.

Organizer : Malaysia Energy Efficiency and Solar Thermal Application Project (MAEESTA)

ASHRAE Malaysia Chapter Representative : Mr. Chea Suei Keong

### Highlights:

1. Presentation on MAEESTA Programme - UNIDO MAEESTA
2. Certificate Presentation Ceremony
3. Presentation on Market Analysis & Deployment Strategy on Solar Thermal Technology for Malaysian Industries- UiTM
4. Training & National Dashboard for Solar Thermal System - SEDA
5. Green Tax Investment - Opportunity for Solar Thermal Project - MIDA
6. Solar Thermal Demonstration Project - IOI Pan Century Oleochemicals Sdn Bhd
7. Solar Thermal Demonstration Project - Ampang Hospital (MOH)
8. Solar Thermal Industry Standards - SIRIM STS Sdn Bhd
9. Solar Thermal NOSS - MOHR-MGTC
10. Micro-Credential on Solar Thermal Technology - UMP
11. Micro-Credential on Thermal Energy Efficiency - UTM

# List of Webinars/Seminars/Courses To Date

## Webinars/Seminars/Courses completed between 1st July 2021 to end of March 2022:

1. Acson Webinar 4th Module on 23 July 2021 by Ts. Ng Wen Bin
2. Sponsor Webinar (Belimo) on 7 July 2021.
3. Acson Webinar 5th Module on 28 July 2021 by Ng Wen Bin
4. Sponsor Webinar (Belimo) on 28 July 2021.
5. ENGINEER Power Talk: Managing High Efficiency Building Towards Sustainability Approach on 17 August 2021 at 3pm. Speakers are Ir. Cheng Yew Leong, Ts. Dr. Hui Kar Hoou, and Ts. Ir. Siow Jat Shern. Total of 200 participants has participated in the talk.
6. Webinar on Covid-19 & Beyond IAQ Ventilation Airborne & Non-Airborne Solution on 18 & 19 August 2021.
7. Sponsored Webinar (Daikin) on 23rd September 2021 - COP vs. NPLV/MPLV Webinar (as per to date 108 total participants)
8. Sponsored Webinar by (Johnson Control) will be held on 5th October 2021 (Previously scheduled on 14 September 2021) - The Design Choice Of Today Webinar (as per to date 60 participants registered)
9. Acson Webinar Wednesday, 29th September 2021 from 10am - 12pm by Mr. Chang CK - Duct Design, Air Flow, and Its Distribution
10. Module 7 – Refrigeration and Future Refrigerants 27 Oct. 2021.
11. Super 8: 1st November 2021, Theme: Building Readiness, by ASHRAE DL Om Taneja, Ir. Lam Kim Seong, Ir. Ng Yong Kong. (This was the joint webinar with ASHRAE Singapore Chapter).
12. Webinar on Refrigerant Regulatory by CTT & Refrigeration Committee will be held on Wednesday, 3rd November 2021 from 3pm to 4pm. The Sponsors for this webinar are NRS Process Systems Sdn Bhd and Aurora Chemicals Sdn Bhd. Special invited Speakers: Mdm. Mashitah Binti Darus from Department Of Environment; Ts. Ng Wen Bin; Mr. Chew Soon Jin and Mr. Lawrence Kam.
13. Sponsored Webinar (ADF) - Generation of Wireless Network, Cloud & AI Technologies in Smart Management System, by Mr David Glover & Ms. Samaneh Nadali.
14. Acson Webinar Wednesday, 24th November 2021 from 10am - 12pm by Ts. Dr. King Yeong Jin - Design Guidelines for Noise and Vibration Control related to HVAC Systems
15. 4<sup>th</sup> SEDA ACMV Training, 1 & 2 December 2021
16. 5<sup>th</sup> SEDA ACMV Training, 5 & 6 January 2022
17. ASHRAE Malaysia Chapter Epidemic Task Force: Second Webinar on Ventilation and IAQ on COVID-19, 20 January 2022
18. Integrating Smart IoT Gateway and EMS for Energy Efficient Buildings, by Ir Tony Cheng, 17 March 2022, Power Talk, Engineer.
19. Building Decarbonization, Advance Energy Design Guide Overview & Chilled Water System Decision, by ASHRAE Society President Mr. Mick Schwedler, 2022 Region XIII Chapter Visits, 14 April 2022.
20. Pre-AGM Technical Talk, 27 May 2022.

# SmartStart Program for Graduate Member

MEMBERSHIP PROMOTION

& YEA



## What is the SmartStart program?

Simply put, it's the best way for ASHRAE student members to receive the many benefits of Associate grade membership after finishing college. SmartStart is a 3 year program that allows Student members to transfer to Associate grade membership at a rate that is recent-graduate friendly.

**Prices as of July 1, 2020:** SmartStart participants who join or renew after this date will be part of the new dues structure. Participants who only paid for one year upon transferring their membership will renew based on this new dues structure. New program prices are (for 3 years respectively): \$25 (+) \$85 (+) \$115= \$225 for 3 years.

The Developing Economies pricing (\$15 + \$45 + \$60 = \$120) is open to those residing in countries considered to be "Low Income" & "Lower Middle Income" by the World Bank. [Visit the World Bank's Web site for a list of low income /lower middle income countries.](#)

By submitting this application you are agreeing to abide by the ASHRAE Code of Ethics, found at [ashrae.org/codeofethics](http://ashrae.org/codeofethics).

**Please note that the SmartStart program is for current ASHRAE Student members who have been a Student member for at least one year.**

## Why Transfer to Associate Membership?

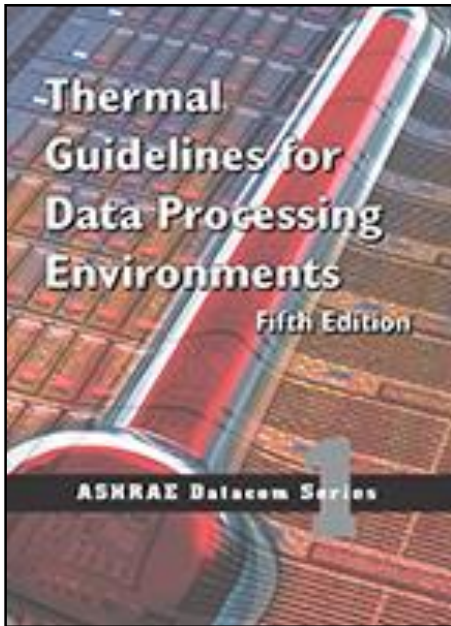
List of Associate Membership Benefits: -

- **Dedicated events and resources** for young professionals are offered at the chapter and Society level through the Young Engineers in ASHRAE (YEA) program.
- Tremendous **networking opportunities** through chapter events, committee participation, volunteering, attending conferences, and more.
- **The ASHRAExChange** – participate in the online forum that brings together members from across the world to discuss design, construction, operation, and support of the built environment.
- **The ASHRAE Handbook** — the indispensable, industry-wide resource for all HVAC&R professionals.
- **ASHRAE Journal** — this monthly resource is the most trusted technical magazine in the HVAC&R community.
- **High Performing Buildings** — the quarterly magazine for innovation in building technology design and operation.
- **HVAC Industry News** — a weekly news resource keeping ASHRAE members abreast of the latest industry news.
- **Bookstore** — Access to, and discounts on, more than 300 of the industry's **leading technical publications**.

# What do we have in our library collections?

## THERMAL GUIDELINES FOR DATA PROCESSING ENVIRONMENTS, 5<sup>TH</sup> ED.

Published: 2021

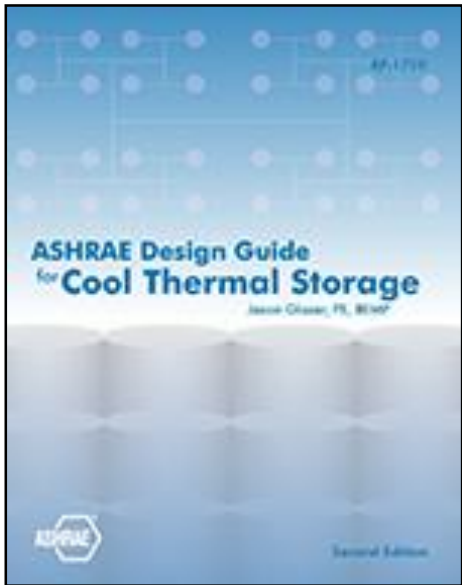


- Provides groundbreaking, vendor-neutral information that empowers data center designers, operators, and managers to better determine the impacts of varying design and operation parameters on information technology equipment (ITE).
- This book covers six primary areas:
  - Environmental guidelines for air-cooled equipment
  - New environmental class for high-density air-cooled equipment
  - Environmental guidelines for liquid-cooled equipment
  - Facility temperature and humidity measurement
  - Equipment placement and airflow patterns
  - Equipment manufacturers' heat load and airflow requirement reporting
- Enables HVAC equipment manufacturers and installers, data center designers, and facility operators to find common solutions and standard practices that facilitate ITE interchangeability while preserving industry innovation. This fifth edition features clarified wording throughout, changes due to research on the effects of high relative humidity and gaseous pollutants on the corrosion of ITE, and a new environmental class for high-density server equipment.
- Includes a removable reference card with helpful information for facility managers and others. The reference card may also be accessed online.
- This book is the first in the ASHRAE Datacom Series, authored by ASHRAE Technical Committee 9.9, Mission Critical Facilities, Data Centers, Technology Spaces and Electronic Equipment.

# What do we have in our library collections?

## ASHRAE DESIGN GUIDE FOR COOL THERMAL STORAGE, 2<sup>ND</sup> ED.

Published: 2019

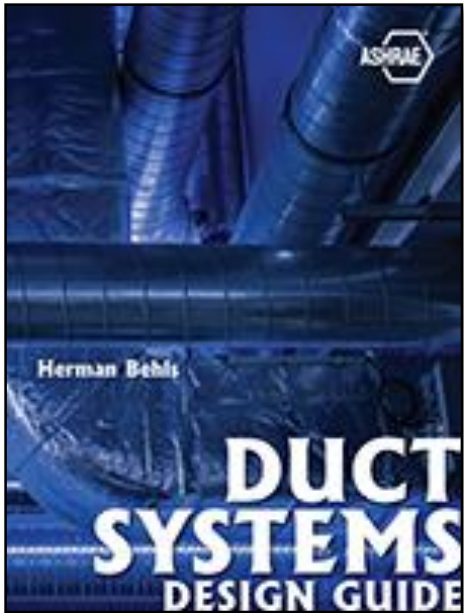


- Completely updated from the previous edition, ASHRAE Design Guide for Cool Thermal Storage (RP-1791) provides design engineers with the latest information in designing, modeling, costing, and commissioning cool thermal energy storage systems.
- With a particular focus on ice and chilled-water systems, this guide is a comprehensive, first-level reference that discusses thermal energy storage fundamentals, compares thermal energy storage technologies, and describes a applications-focused procedure for designing cool thermal energy storage systems.
- This extensively revised guide includes new sections on
  - Mission-critical and emergency cooling applicable to vital, technologically complex situations
  - Electric utilities and demand response programs to promote greater energy efficiency
  - Building energy modeling estimates to aid in design
  - Relevant national and international codes and standards
  - Utility tariffs, energy cost analysis, and system design
- ASHRAE Design Guide for Cool Thermal Storage is a valuable tool in the design engineer's portfolio of potential energy-efficient and energy-saving thermal storage techniques.

# What do we have in our library collections?

## DUCT SYSTEMS DESIGN GUIDE

Published: 2021



- Essential Guidance for Designing Duct Systems
- Gives engineers and other design professionals the tools to design properly sized duct systems to minimize fan energy consumption, system-generated noise, and the installed cost of ductwork.
- Nearly every facet of duct design is covered in detail in this guide: duct layout, fitting selection, system leakage, acoustics, equipment selection, and more. Chapters dedicated to selection and comparison of duct design methods for commercial and industrial duct systems cover the equal friction method, the static regain method, and the constant velocity method.
- Online access to spreadsheets in Microsoft® Excel® format that can be used to design commercial and industrial duct systems using these duct design methods is also available with this book. The guide also discusses duct system materials and the impacts they have on design and system efficiency, as well as fan-duct system interaction and using the ASHRAE Duct Fitting Database (DFDB).
- Best-practices reference for HVAC engineers and designers seeking to develop more energy-efficient, accurate, user-friendly, and cost-efficient HVAC systems. The information detailed in this guide is useful for entry-level engineers and designers who are first learning about duct design fundamentals and also serves as a tool for more experienced engineers and design professionals wishing to refresh their design knowledge.

# Online Reading-Only-Version of Latest ASHRAE Publications is Available ! (1/2)

LIBRARY &  
RESOURCES



[Click this link to access to the online "Read-Only-Versions" of ASHRAE Standards & Guidelines](#)

## **Guidelines Available:**

- Guideline 1.4-2019, Preparing Systems Manuals for Facilities
- Guideline 11-2021, Field Testing of HVAC Control Components [Latest Version]
- Guideline 12-2020, Managing the Risk of Legionellosis Associated with Building Water Systems
- Guideline 28-2021, Air Quality within Commercial Aircraft [Latest Version]
- Guideline 29-2019, Guideline for the Risk Management of Public Health and Safety in Buildings
- Guideline 36-2021, High-Performance Sequences of Operation for HVAC Systems [Latest Version]

## **Standards Available:**

- Standard 15-2019, Safety Standard for Refrigeration Systems
- Standard 34-2019, Designation and Safety Classification of Refrigerants
- Standard 52.2-2017, Method of Testing General Ventilation Air-Cleaning Devices for Removal Efficiency by Particle Size [Recently Added]
- Standard 55-2020, Thermal Environmental Conditions for Human Occupancy (ANSI Approved)
- Standard 62.1-2019, Ventilation for Acceptable Indoor Air Quality
- Standard 62.2-2019, Ventilation and Acceptable Indoor Air Quality in Residential Buildings
- ANSI/ASHRAE Standard 84-2020, Method of Testing Air-to-Air Heat/Energy Exchangers (ANSI Approved)

# Online Reading-Only-Version of Latest ASHRAE Publications is Available ! (2/2)

LIBRARY &  
RESOURCES



[Click this link to access to the online "Read-Only-Versions" of ASHRAE Standards & Guidelines](#)

## **Standards Available:**

- Standard 90.1-2019, Energy Standard for Buildings Except Low-Rise Residential Buildings
- Standard 90.2-2018, Energy Efficient Design of Low-Rise Residential Buildings
- Standard 100-2018, Energy Efficiency in Existing Buildings
- Standard 111-2008 (RA 2017)-- Testing, Adjusting, and Balancing of Building HVAC Systems
- Standard 154-2016, Ventilation for Commercial Cooking Operations
- Standard 161-2018, Air Quality within Commercial Aircraft
- Standard 170-2021, Ventilation of Health Care Facilities [Latest Version]
- Standard 180-2018, Standard Practice for Inspection and Maintenance of Commercial Building HVAC Systems (ACCA Co-sponsored)
- Standard 183-2007 (RA 2020), Peak Cooling and Heating Load Calculations in Buildings Except Low-Rise Residential Buildings (ACCA Co-sponsored)
- Standard 185.2-2020, Method of Testing Ultraviolet Lamps for Use in HVAC&R Units or Air Ducts to Inactivate Microorganisms on Irradiated Surfaces
- Standard 188-2021, Legionellosis: Risk Management for Building Water Systems [Latest Version]
- Standard 189.1-2020, Standard for the Design of High-Performance Green Buildings
- Standard 211-2018, Standard for Commercial Building Energy Audits

# From ASHRAE: Upcoming ASHRAE Publications

## Coming Soon - Special Publications

- Advanced Energy Design Guide for Multifamily Residential Buildings: Achieving Zero Energy (Q2 2022)
- Designing for Operational Excellence Guide (Q2 2022)
- Design Guide for Combustion Turbine Inlet Air Cooling Systems, 2nd ed. (Q2 2022)
- ASHRAE Design Guide for Cold-Climate Buildings, 2nd ed. (Q2 2022)
- Pocket Guide, 10th ed. (I-P and SI editions) (Q2 2022)
- Healthier Homes During Epidemics (Q2 2022)
- ASHRAE GreenGuide, 6th ed. (Q3 2022)
- Nearly ZEB Hospitals Guide Book (co-published w/REHVA) (Q4 2022)
- HVAC Design Guide for DOE Nuclear Facilities, 2nd ed. (Q4 2022)
- Handbook of Smoke Control Engineering, 2nd ed. (Q1 2023)
- ASHRAE Design Guide for Commercial Kitchen Ventilation (Q1 2023)
- ASHRAE Design Guide for Dedicated Outdoor Air Systems, 2nd ed. (Q1 2023)
- Practical Guide to Seismic Restraint, 3rd ed. (Q2 2023)
- HVAC Fast Facts (SI) (Q2 2023)
- Design Considerations for Datacom Equipment Centers, 3rd ed. (Datacom Series Book 3) (Q2 2023)
- RAC Plant Assessment Guide Sustainable Operations and Maintenance of Refrigeration and Air Conditioning Plants (Q2 2023)
- Procedures for Commercial Building Energy Audits, 3rd ed. (Q3 2023)
- Liquid Cooling Guidelines, 3rd ed. (Datacom Series Book 4) (Q3 2023)
- Classification of Laboratory Ventilation Design Levels, 2nd ed. (Q3 2023)
- Fuel Cells for Building Applications, 2nd ed. (Q4 2023)

## Coming Soon - Standards and Guidelines

- ANSI/ASHRAE Standard 15-2022, Safety Standard for Refrigeration Systems (Q3)
- ANSI/ASHRAE Standard 15.2-2022, Safety Standard for Refrigeration Systems in Residential Applications (Q2)
- ANSI/ASHRAE Standard 34-2022, Designation and Safety Classification of Refrigerants (Q3)
- ANSI/ASHRAE Standard 62.1-2022, Ventilation for Acceptable Indoor Air Quality (late Q2/early Q3)
- ANSI/ASHRAE Standard 62.2-2022, Ventilation and Acceptable Indoor Air Quality in Residential Buildings (late Q2/early Q3)
- ANSI/ASHRAE/IES Standard 90.1-2022, Energy Standard for Buildings Except Low-Rise Residential Buildings (Q4)
- ANSI/ASHRAE Standard 90.4-2022, Energy Standard for Data Centers (Q4)
- ANSI/ASHRAE Standard 154-2022, Ventilation for Commercial Cooking Operations (Q3/Q4)

## Your (NEW!) Membership Benefits

A NEW selection of complimentary ASHRAE products is now available to new and renewing, full dues paying Member and Associate grade members.



*Renew your ASHRAE membership today at [ashrae.org/renew](http://ashrae.org/renew).*

*(Continued to next page)*

## Additional Member Benefits by the Numbers

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ASHRAE Journal



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**25 %**  
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