#### **PROGRAMME**

# DAY 1: Overview of BAS and Design Provisions

Enable System Integrators (SI) to understand BAS in totality. The sessions will provide an overview of BAS in the local construction industry from past to present over the last few decades, current issues and future challenges which will be followed by discussion on the relationship between M&E Systems and green building rating tools. In addition, potential design provisions especially for Design Consultants will be shared covering typical architectures of BAS, generation of I/O list and tender specification to engage Certified BAS System Integrators.

#### DAY 2: BAS in Building M & E Systems

Day 2 will focus on the relationship between BAS and Mechanical & Electrical systems. In depth details with illustrations will be shared. Interfacing concerns between BAS and other services will be highlighted. The ACMV core topics is expected to be very packed as it contributes the most to the BAS. Electrical protection and distribution network will be elaborated, together with lighting control. Typical examples of I/O list will be provided for each system.

#### Day 3: BAS Trending and Analytics

Day 3 will kick off with BAS control and monitoring in plumbing and irrigation followed by the next core topic of BAS Trending and Analytics. The most valuable tool of BAS – trending analysis and its acquired raw data. Various constraints will be highlighted and clarification to be sought from BAS Specialists, M&E Consultants & Owners for this rarely used but important implementation. Introduction to the imminent Monitoring Based Commissioning (MBCx) as a new tool in performance enhancement and diagnosis will be presented. Practical examples will be featured in an interactive manner. Day 3 will end with a MCQ exam for SI's desiring to be certified and will close with a briefing on the Project Assignment & grouping of candidates with submission and presentation to examiners approximately two (2) weeks later.

Day 4 (Half Day): Project Assignment & Group Presentation

#### **REGISTRATION FEE**

#### **ACEM & BASAM Members:**

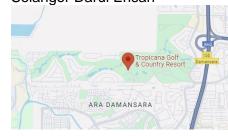
RM 500.00 (Day 1 only) RM 1,300.00 (Full course)

#### Others:

RM 600.00 (Day 1 only) RM 1,600.00 (Full course)

#### **VENUE**

Ballroom V (Main Wing) Tropicana Golf & Country Club Jalan Kelab Tropicana 47410 Petaling Jaya Selangor Darul Ehsan



(Certificate of Attendance will be issued, subject to full attendance)

(ACEM-BASAM Certificate of BAS SI Competency will be issued to participants who pass the exam.)

#### ORGANISED BY





# ACEM-BASAM SYSTEM INTEGRATOR TRAINING COURSE & EXAM #1/2024

## DAY 1

DATI				
Time	Contents of Lecture			
8.30 a.m 9.00 a.m.	Registration			
9.00 a.m 9.15 a.m.	Opening remarks by ACEM/BASAM President			
9.15 a.m 10.30 a.m.	Overview of BAS (Part 1)			
10.30 a.m 10.45 a.m.	Tea Break			
10.45 a.m 1.00 p.m.	Overview of BAS (Part 2)			
1.00 p.m 2.00 p.m.	Lunch Break			
2.00 p.m 3.30 p.m.	BAS Design Provisions (Part 1)			
3:30 p.m 3.45 p.m.	Tea Break			
3.45 p.m 5.15 p.m.	BAS Design Provisions (Part 2)			
5.15 p.m 5.30 p.m.	Short Quiz and Q&A			
5.30 p.m.	End of Day 1			

# DAY 2

Time	Contents of Lecture			
8.30 a.m 9.00 a.m.	Registration			
9.00 a.m 10.30 a.m.	BAS in ACMV – Airside (Part 1)			
10.30 a.m 10.45 a.m.	Tea Break			
10.45 a.m 11.15 a.m.	BAS in ACMV – Airside (Part 2)			
11.15 a.m 1.00 p.m.	BAS in ACMV – Waterside (Part 1)			
1.00 p.m 2.00 p.m.	Lunch Break			
2.00 p.m 3.30 p.m.	BAS in ACMV – Waterside (Part 2)			
3.30 p.m 3.45 p.m.	Tea Break			
3.45 p.m 5.15 p.m.	BAS in Electrical Distribution			
5.15 p.m 5:30 p.m.	Short Quiz and Q&A			
5.30 p.m.	End of Day 2			

# DAY 3

DAIJ				
Time	Contents of Lecture			
8.30 a.m 9.00 a.m.	Registration			
9.00 a.m 10.30 a.m.	BAS in Plumbing & Irrigation			
10.30 a.m 10.45 a.m.	Tea Break			
10.45 a.m 1.00 p.m.	BAS Trending & Analytics (Part 1)			
1.00 p.m 2.00 p.m.	Lunch Break			
2.00 p.m 3.30 p.m.	BAS Trending & Analytics (Part 2)			
3.30 p.m 3.45 p.m.	Tea Break			
3.45 p.m 5.00 p.m.	MCQ Briefing & Exam			
5.00 p.m 5.30 p.m.	Briefing on Group Project Assignment			
5.30 p.m.	End of Day 3			

### DAY 4

(Scheduled approximately two weeks after Day 3)

Time	Contents of Lecture		
8.00 a.m 8.30 a.m.	Registration		
8.30 a.m 1.00 p.m.	Presentation of Project Assignment		
Tea and coffee with snacks served throughout 8.00 a.m. to 1.00 p.m.			
1.15 p.m.	End of Day 4		

#### Note:

- Titles and sequence of papers are subject to change without prior notice.
- Participants are encouraged to bring along their laptop.

### **BEM APPROVED CPD**

Day 1 only – 6 hours Full course – 20 hours

# **TRAINERS**



Ir. TL Chen FASHRAE, FIFIRE, FIEM, PE, CE

Ir. Chen Thiam Leong is a Past President of the Association of Consulting Engineers Malaysia (ACEM), the Institution of Fire Engineers Malaysia (IFEM) and the Malaysian Chapter of ASHRAE. He is also Honorary Life Advisor to the Malaysian Air-Conditioning & Refrigeration Association (MACRA) and Advisor to the Building Automation System Association of Malaysia (BASAM). Chen is a practising Consulting Engineer. His notable projects include the New Securities Commission HQ which was Malaysia's first winner of the ASEAN Energy Award (where he introduced the concept of totally ductless and uninsulated floor plenum for comfort air-conditioning exceeding 600 m2 per zone) and the Energy Commission HQ, winner of the ASEAN Energy Award 2012, EMERSON CUP 2012 and ASHRAE Technology Award 2013.

Chen holds a 1st Class Hons Mechanical Engineering degree from the University of Leeds and has been involved in Energy Efficiency designs since the early 80s. He regularly lectures in the international circuit on the subjects of Sustainability and Energy Efficiency under the ASHRAE Distinguished Lecturer program and is Malaysia's first ASHRAE DL. Chen also specializes in Energy and Fire & Life Safety audits. He is involved in the development of numerous Malaysian Standards including MS1525 on EE and has authored/co-authored technical articles/papers which are regularly featured in technical publications.

Together with Ir. PS Soong, Chen mooted and jointly conducted the Commissioning Specialists course for practitioners in Malaysia. In his quest to further plug the lacuna to realize high performance buildings, Soong and Chen have subsequently teamed up to conduct the BAS Integrator course. In recognition of his contribution to the engineering fraternity, Chen was honoured with the ACEM Gold Medal Award in 2010.



Ir. Dr. Ling Chin Poh PE, MIEM, MPMI, GBIF, GBICXS

Ir. Dr. Ling Chin Poh graduated from University of Western Australia in 1989 with a First Class Honours in Mechanical Engineering and Doctor of Philosophy in 1993. He has more than 25 years' experience in the design, construction, testing and operation of Mechanical system in building services. Ling is highly regarded for his experience in design, management and construction of prestigious projects in Sarawak ranging from offices, condominiums, hotel resorts, airports, hospitals and universities.

He is a qualified GBI Facilitator (GBIF) and GBI certified competent Commissioning Specialist (CxS). He is currently involved with green building projects in Sarawak & Sabah. His contribution in successful evaluation of building performance making full use of BAS trend logged data has helped the building industry move towards monitoring based commissioning. Ling is also a member of the Institution of Engineers Malaysia (IEM) and the Project Management Institute (PMI)



Ir. JY Ng PEPC, MACEM, MIEM, ACPE

Ir. JY Ng obtained his postgraduate diploma in Electrical & Electronic Engineering from City & Guilds, UK. He is a Professional Engineer with Practising Certificate registered with the Board of Engineers Malaysia (BEM), a member of ACEM and IEM, as well an ASEAN Chartered Professional Engineer.

Ir. Ng has over 20 years of consultancy experience in the building industry. Under his hands-on leadership, he has successfully completed various projects in mixed developments, commercial & residential buildings, hotels & resorts and institutional developments.

His extensive experience includes a stint as a full-time M&E Resident Engineer of a 40-storey office tower in Kuala Lumpur. With a well-rounded grinding in both office and site involvement, he is able to navigate and understand the full gamut of a project development from start to finish.



Ir. Chin Kok Hoe B.Eng MECH, iCxS, GBIF

Ir. Chin Kok Hoe is Manager of Cofreth's Energy Services Department and has more than 12 years of working experience. He holds a Bachelor of Engineering (Hons.) Degree in Mechanical Engineering from the University of Malaya (UM).

He is a Competent GBI Commissioning Specialist (CxS), GBI Facilitator (GBIF) and Registered Electrical Energy Manager (REEM) under Suruhanjaya Tenaga (Energy Commission of Malaysia) and a Certified Energy Auditor. Ir. Chin is also a corporate member of ASHRAE.

In 2021, Ir. Chin was appointed as one of the consultants for Low Carbon Energy Programme (LCEP) in Malaysia. The project was awarded to Cofreth by Carbon Trust of London and is funded by UK Foreign and Commonwealth Development Office (FCDO).

# **REGISTRATION FORM**

# ACEM-BASAM SYSTEM INTEGRATOR TRAINING COURSE & EXAM #1/2024 14th - 16<sup>th</sup> May 2024 (8.30 a.m. - 5.30 p.m.) 1<sup>st</sup> June 2024 (8.00 a.m. - 1.00 p.m.)

BALLROOM V, TROPICANA GOLF & COUNTRY CLUB PETALING JAYA, SELANGOR

REGISTRATION	RM 500.00 (Day 1 only) / 1,300.00 (Full course) – ACEM & BASAM Members				
FEE	RM 600.00 (Day 1 only) / 1,600.00 (Full course) – Others				
Participant Name	Organization	Contact No. / Email	Membership No.	Fee (RM)	
			Grand Total:		
Mr. Jef	frey Lim, Mobile – 012	283 0913, E-mail – basa -330 2246, E-mail – jeff sara Utama, 47400 Pet	reylsb@hotmail.com		
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		dable if I/we withdrawend the seminar, the fee	•	· · · · · · · · · · · · · · · · · · ·	
Name of Company: _		Mobile	:		
Contact Person : _		E-mail	:	_	
Telephone :		Signatur Compar	re / ny Stamp :		

Closing date of registration: 7<sup>th</sup> May 2024 or when fully subscribed, whichever is earlier.