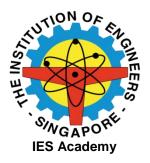
# IES Facility & Energy Management (IFEM) Course (4th Run)

By Dr. Kang Kok Hin

Supported by:





# **Introduction**

This program focuses on regulatory framework on FM service and energy standards, Strategic management of facilities, green technologies, integration of active and passive designs and sustainability in building maintenance management and cooperation between disciplines in design, construction, project life cycle and whole life cost of FM and strategic Asset management to create awareness on and provide practical approach to the understanding of FM from a holistic life cycle perspective:

- Integrated design & compliance to GM sustainability standards
- CBA of options, explore solutions
- Documentation process for smooth certification & implementation

# **Objectives**

- To understand Green Mark legislation criteria and framework
- To understand energy management, Technologies and practices in facility management
- To know green building technology and use of simulation tools to predict total building performance
- To know building management, operation, maintenance management and building services
- To apply Green Building criteria in the earlier life of project and compute assessment score
- To facilitate an integrated design and verify compliance to Green Mark & High Performance Building standards
- To conduct cost-benefit analysis of options, explore innovative solutions to enhance scores
- To coordinate the documentation process necessary for smooth certification and implementation
- To understand the importance of sustainable FM and whole Life Cost of the Green building that will enable value creation and Green productivity in the built environment

# **Programme Details**

### Date & Time:

10, 11, 13, 17, 18 Dec (9am-6pm) & 20 Dec 2019 (9am-12.30pm)

### Venue:

IES Academy@Jurong East 80 Jurong East Street 21, #04-10, Singapore 609607

### **CPD Point:**

42 PDUs (SCEM) & 41 PDUs (PEB) – Confirmed

#### Fees\*:

\$1,926 (IES Member) \$2,140 (Non-Member) (E2i training grant applicable for Singaporean and PR, Terms & Conditions Apply)

- \* Inclusive of 7% GST and course materials.
- \*Certificate of Attendance will be issued to participants with **100%** attendance.
- \* Certificate of Completion will be given to participants who <u>PASS the Assessment</u>

### **Prerequisites:**

- Degree in engineering & 1-2 years working experience

<u>OR</u>

- Diploma in engineering & 3-5 years working experience

OR

- SCEM, GMFM, GMM & GMP

### **Target Audience**

Architects, M&E Engineers, Practicing Facility Managers, Plant Managers, Maintenance Personnel, Contractors, Property Developers, and Project Managers who wish to explore and introduce best practices in facilities management to improve productivity, effectiveness and efficiency.

# **Course Syllabus**

- Energy Management System & Practices (13 hrs\*, SCEM or GMM)
- Strategic & Sustainable FM (3 hrs)
- Operation & Maintenance Management (3 hrs)
- IAQ/IEQ & Environmental Sustainability (3 hrs)
- Total Building Performance Management & KPIs (3 hrs)
- Green Building & Green Productivity; Green Activities, Building Envelope (3 hrs)
- Building Services C&S, M&E, Conservancy, Building Fabric (3 hrs)
- Risk Management & Business Continuity planning (3 hrs)
- BIM, Life Cycle Costing, Analysis & LCCM (3 hrs)
- IT & Data Analytic application in FM (2 hrs):

### \*denotes:

- Energy Market Overview (3 hrs)
- Economic Analysis in EE (3 hrs)
- Energy Management System (3 hrs)
- Building Energy Modeling & Thermal Simulation (2 hrs)
- Sustainable HotWater & Heat Recovery Systems (2 hrs)
- Group project presentation/report to be submitted (For assessment)

### Trainer's Profile



**Dr. Kang Kok Hin**(Managing Director, MPF Consultants Pte Ltd)

Dr. Kang earned his 1st class honors B. Eng (Mechanical Engineering) from Monash University of Australia (PSC scholarship). He also obtained his Master of Engineering degree and Doctor of Philosophy in Building Science from NUS.

Professionally Dr. Kang is a Chartered Engineer in Australia and UK, Professional Engineer in Singapore; Corporate members of IFMA (USA)/BIFM (UK) in Facilities and Project management. He is a corporate member of ASHRAE (USA); ASME (USA); Fellow of Institute of Plant Engineers UK and Fellow of Asian Concrete Institute of Singapore. He founded the Institution of Facilities Management (IFM), Singapore and is currently its Honorary President. He sits in the "Spring Singapore Technical Committee" for Building and Maintenance Services as Committee Member. He also assisted Singapore Test Services in the R&D of advanced project management training.

Dr. Kang is an Adjunct A/P, School of MAE Faculty, NTU; an concurrent Adjunct A/P of University Of Manchester UK for MSc (Project Management). He was also Adjunct A/P in 2010 – 2012 for the School of Facilities and Events Management/SUSS, and Chairman of the Program Advisory Committee (2010-2012).

He started as a design and maintenance engineer with Singapore Public Works Department where he garnered the expertise in building design, operation and sustainable facilities/Infra-structure management, strategic project management with his 30 over years of experiences in General and International business Management & international FM; in the capacities of General Manager of IT Park Bangalore India; and Director of Wuxi Industrial Park China etc.; plus General Manager of CDL's 100% owned subsidiary company CBM etc.

For industry participation, he lectures in Singapore Building Construction Authority (BCA) & BCA Academy on Green Mark FM certification, Construction Management productivity, Sustainable FM, Project Design/Planning/Control and FM Solutions. He also sits in the BCA Academy BIM-FM steering Committee.

He has had several academic exchanges of Asset and Energy management with several Chinese universities and Industrial Parks, Retail malls, office/commercial, Institutions and industrial buildings on the importance of becoming green via the integration of data analytic, integrated maintenance planning with Artificial Intelligence, innovative technologies such as BIM-FM, strategic and sustainable FM approaches. He has also been reaching out to Institution of Engineer Malaysia and IKRAM (Malaysia Public Works Department).

### **Registration Form**

# IES Facility & Energy Management (IFEM) Course (4<sup>th</sup> Run)

Date & Time: 10, 11, 13, 17, 18 December (9am – 6pm) & 20 December 2019 (9am – 12.30pm)

Venue: IES Academy@Jurong East

Fees (Include GST): IES member: \$1,926, Non-member: \$2,140 (E2i training grant applicable for Singaporean and PR, Terms & Conditions Apply)

Please register online/mail/fax the completed form by 2<sup>nd</sup> December 2019 before 3pm to:

Vincent Chiew
IES Academy@Jurong East
80 Jurong East Street 21, #04-10
Devan Nair Institute for Employment and Employability
Singapore 609607
Tel: 6463 9211

Fax: 6563 6030

**Participant Details** 

*Name :			×	NRIC :		
	(Please	e written in BLOCK Lett	ter)	_		
Company :			*I	Designation:		
*Address 1 :						
	(For ma	iling of invoice and rece	eipt)			
Address 2 :						
*Postal Code :			Se	x :	Male / Female	
*Contact No. :			F	ax :		
*Your Email :						
	(For ser	nding of confirmation er	mail, preferable personal	unless compa	ny sponsored)	
Please indicate		IES members	IES M'ship No.:		PE No.:	(if applicable)
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### **TERMS & CONDITIONS COURSE REGISTRATION**

### **Registration**

Any registration, whether on-line or fax will be on a *first-come-first-served basis* and will only be confirmed upon receipt of full payment by Engineers Singapore Pte Ltd unless otherwise invoice to company.

All registrations must be submitted with duly completed registration form.

### **Closing Date & Payment**

The closing date of the event will be 1 week prior to event commencement date or earlier. Cheques should be crossed 'A/C payee only' and made payable to **'Engineers Singapore Pte Ltd'**, with the <u>Title of The Event indicated</u> <u>clearly written on the back of the cheques</u>, and submitted with the duly completed registration forms to:

### IES Academy@Jurong East

Devan Nair Institute for Employment and Employability, 80 Jurong East Street 21, #04-10 Singapore 609607

### **Confirmation of Registration**

Confirmation of registration will be given at least 1 week before the commencement date via email. If you do not receive the said confirmation email, you are required to contact IESA at 6463 9211 during office hours.

IESA reserves the right to allow only confirmed registrants to attend the Event.

### Withdrawals/Refunds of Fees

Written notice at least 1 week in advance before the commencement of the event

Full course fee shall be refunded subjected to 4.5% transaction charge.

#### > **NO** refund otherwise.

No show of participant would not be accepted as a valid reason for withdrawal/refund.

One time replacement is allowed only if written notice is received by us at least 1 week before the commencement of the event. However, when an IES member is replaced by a non-member, the participant has to pay the difference in the relevant fees.

### **Cancellation/Postponement**

Changes in Venue, Dates, Time and Speakers for the Events can occur due to unforeseen circumstances. IES reserves the full rights to cancel or postpone the Event under such circumstances without prior reasons. Every effort, however, will be made to inform the participants or contact person of any cancellation or postponement.

Fees will be refunded in FULL if any Event is cancelled by IESA.

#### UTAP (Union Training Assistance Programme) is an individual skills upgrading account especially

**SkillsFuture Credit (SFC)** "All Singaporeans aged 25 and above can use their \$500 SkillsFuture Credit from the government to pay for a wide range of approved skills-related courses. Visit the SkillsFuture Credit website (www.skillsfuture.sg/credit) to choose from the courses available on the SkillsFuture Credit course directory."

Please visit <u>HERE</u> for more information on SFC & UTAP claim.

### PERSONAL DATA PROTECTION ACT

I consent to the processing by Institution of Engineers, Singapore of personal data, including sensitive personal data as defined in the Data Protection Act 2014, about me for the proper purposes of Institution of Engineers, Singapore (IES). I undertake to observe the provisions of the Data Protection Act 2014 in relation to any personal data I may myself hold and process as a Members of Institution of Engineers, Singapore, and I agree to indemnify Institution of Engineers, Singapore from liability for any claims or damages that may arise from the processing of this data. For more information kindly refer to here.

### **Enquiries**

For further enquiries, please contact IESA general office at Tel: 6463 9211.