

Agricultural Engineering Technical Division

The Institution of Engineers, Malaysia

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Organised by:

Agricultural and Food Engineering Technical Division,
The Institution of Engineers, Malaysia**REGISTRATION:**

Name(s)	IEM M'ship No. /Grade	Fees (RM)
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ADD GST @ 6%		
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PAYMENT DETAILS☐ Cash RM _____
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 (non-refundable) and made payable to "**THE INSTITUTION OF ENGINEERS, MALAYSIA**"
 and crossed '**A/C Payee Only**'.
Terms & Conditions:

- For ONLINE REGISTRATIONS, only ONLINE PAYMENT is applicable [via Credit Card]
- Payment via CASH / CHEQUE / BANK-IN TRANSMISSION / BANK DRAFT / MONEY ORDER / POSTAL ORDER / LO / WALK -IN will be considered as NORMAL REGISTRATION
- For online registrations, please note that **payment MUST be made on registration.**
- FULL PAYMENT** must be settled before commencement of the course, otherwise participants will not be allowed to enter the hall. If a place is reserved and the intended participants fail to attend the course, the fee is to be settled in full. If the participant failed to attend the course, the fee paid is non refundable. Registration fee includes lecture notes, refreshment and lunches.
- The Organising Committee reserves the right to cancel, alter, or change the program due to unforeseen circumstances. Every effort will be made to inform the registered participants of any changes. In view of the limited places available, intending participants are advised to send their registrations as early as possible so as to avoid disappointment.

One-Day Course on
**"Harness With Optimization The Indigenous Renewable
 Energy Resources Is The Best Option For Sustainability.
 Renewable Energy From Biogas & Biomass
 Can Be Your Good & Viable Options"**

Speaker**Ir. Hor Kok Luen & Ir. Wan Wai Thong****Date****30 November 2016 (Wednesday)****9.00am - 5.15pm****Venue**
**C&S and TUS Lecture Room, 2nd Floor,
 Wisma IEM, Petaling Jaya, Selangor Darul Ehsan**
REGISTRATION FEES (BEFORE GST)

Grade	Online Fee	Normal Fee
IEM Student Member	RM 150.00	RM 180.00
IEM Graduate Member	RM 250.00	RM 300.00
Corporate Member	RM 400.00	RM 450.00
Non IEM Member	RM 550.00	RM 600.00

Closing Date: 23rd November 2016
**BEM Approved CPD/PDP Hours: 6.5
 Ref. No: IEM16/HQ/373/C**
**GST is implemented
 effective 1 April 2015**

SYNOPSIS

The world currently obtains its main energy from the source of fossil fuels such as oil, natural gas and coal in general. However, the rapid depletion of fossil fuel reserves as well as climate change has driven the world towards renewable energy sources which are abundant, untapped and most important environmentally friendly. Malaysia has abundant biomass resources generated from the agricultural industries particularly the large commodity product, palm oil. This one day workshop will focus on the two vital scopes, mainly biomass (Empty Fruit Bunch-EFB) & bio-methane gas capturing project from Palm Oil Mill Effluent (POME) as the 2 sources of renewable energy for various utilization and application. This workshop will also be the platform for deep sharing concerning on the technical & commercial challenges of these two renewable energy resources cum the viable optimization techniques.

Let us to have better understanding & exploration. As being briefly mentioned above, topics to cover today inclusive of market interest and trend of power plant, power plant philosophy or concept of its existence, plant and machinery review, project experience sharing, mass balance and economic operation of power plant.

TENTATIVE PROGRAMME

TIME	PROGRAME
08:30am – 09:00am	Registration
09:00am – 10:00am	Biomass Power Plant, Market Interest, Power Plant Philosophy, Plant review
10:30am – 10:45am	Tea Break
10:45am – 12:45pm	Project experience sharing, Mass Balance, Economics, Q&A
12:45pm – 01:45pm	Lunch
01:45pm – 03:30pm	➢ Biogas power plant ➢ Energy general review & Industry introduction ➢ Rules & regulations & the enforcement of the authorities (MPOB, DOE & JKPP) ➢ Biogas introduction: What is biogas? Green House gas? ➢ Biogas composition & its potential calorific value and mass balance ➢ The technical and commercial value of biogas ➢ Forming and capturing of biogas & the feasible techniques ➢ Biogas treatment before utilization: Desulphurization & dehumidifier
03:30pm – 03:45pm	Tea Break
03:45pm – 05:00pm	➢ Biogas utilization and market interest ➢ The Potential amount of gas that generated & captured cum utilize ➢ Good practice and application of biogas utilization ➢ Biogas Power Plant set up and plant review ➢ What is SEDA: Sustainable Energy Development Authority & its role ➢ Technical challenges and commercial challenges for biogas Project ➢ Optimization of biogas power plant
05:00 pm – 05:15 pm	Q & A session: Biomass & Biogas Power Plant

CANCELLATION POLICY

IEM reserves the right to postpone, reschedule, allocate or cancel the course. Full refund less 30% if cancellation is received in writing more than 7 days before start date of the event. No cancellation will be accepted prior to the date of the event. However, replacement or substitute may be made at any time with prior notification and substitute will be charged according to membership status.

BIODATA OF SPEAKER



Ir. Hor Kok Luen (P.Eng with Practising Certificate, MIEM, First Grade Competent Steam Engineer, ASEAN ENGINEER) graduated from University of Science Malaysia (USM) in 2001. He is holding Bachelor of Degree (Hons.) in Mechanical Engineering.

He has more than 16 years of working experience in the palm oil mill & related downstream industries, inclusive of biogas power plant. He has vast experience in Boiler operation & maintenance, palm oil mill design, mill upgrading and mill troubleshooting as well as waste handling & management.

As holding the qualification as Competent First Grade Steam Engineer (JKKP, Malaysia), currently he is taking the responsibility and challenge as the Chief Engineer for a well-established palm oil group of company which owns five (5) palm oil mills and subsidiary plants, which aggressively embark involving in palm oil mill processing, long fiber plant, short fiber plant, solvent extraction plant, biomass power plant, biogas capturing plant, CHP plant and of course green energy generation for grid connection (Feed in tariff) besides islanded unit for in-house consumption.

The speaker is a corporate member of The Institutions of Engineers Malaysia (IEM) in Mechanical Discipline. He is also a Registered Professional Engineer with Practicing Certificate (PEPC) with the Board of Engineers Malaysia (BEM) as well as ASEAN Engineer (AE). Currently he is a Hon Secretary of Food & Agricultural Engineering Technical Division (AFETD), IEM HQ.

Ir. Wan Wai Thong graduated with a Bachelor in Engineering Hons. Agriculture in 1993 and he managed to complete the 3 years of Reserve Officer Training Unit in 1992 before graduated as an engineer.



As a recipient of Guthrie scholarship, he started his first job in Ulu Remis Palm Oil Mill in Johore of one of the Guthrie sister mill then, as an assistant manager. He worked his way up with the required knowledge and skills in palm oil milling industries.

Obtained his 2nd grade steam engineer in 1995 and 1st grade steam engineer in 1997. In 1996, he obtained his Diploma in Palm Oil Milling and management offered by PORIM. He had worked in power plant in MNI in Mentakab, Pahang as shift manager for 6 over years. Experienced in operation and maintenance of high pressure and temperature power plant, study and monitor boiler efficiency and related machineries. He further his engineering quest by obtaining Professional Engineer certification by Board of Engineer Malaysia (BEM) in year 2011 and is a member of Institute of Engineer Malaysia (IEM). Experienced in managing engineering works for 2 years in Sabah. Expert in mechanical problem solving and with strong leadership skill. Proficient in English, Malay and Chinese and Cantonese has significantly increased the communication and integration speed with those working under him. Well trained in safety, technical skills, knowledge and love to share experience and knowledge with those working under or together with him. At present, he works as a technical director in one of palm oil milling company in Malaysia.

Monitoring operation of 2 palm oil mills, upgrading of mills and managing company projects such biomass and biogas power plant.

PERSONAL DATA PROTECTION ACT

I have read and understood the IEM's Personal Data Protection Notice published on IEM's website at <http://www.myiem.org.my> and I agree to IEM's use and processing of my personal data as set out in the said notice.