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### **REGISTRATION FORM**

**One day Technical Course on The potential tertiary commercial-scale plants using palm oil mill by-products.**  
**How feasible, variable & viable/ Sustainable?**  
**(Closing Date: 30<sup>th</sup> September 2019)**

No	Name(s)	M'ship No.	Grade	Fee (RM)*
SUB TOTAL				
SST 6%				
Total Payable				

**\*Fees MUST be fully paid BEFORE the CLOSING DATE. Seats could only be confirmed upon payment.**  
 Enclosed herewith a crossed cheque No: \_\_\_\_\_ for the sum of RM \_\_\_\_\_ issued in favour of "**The Institution of Engineers, Malaysia**" and crossed 'A/C payee only'. I/We understand that the fee is not refundable if I/We withdraw after my/our application is accepted by the Organising Committee as stated in the **cancellation term**. If I/We fail to attend the seminar, the paid registration fee will not be refunded.

Contact Person: \_\_\_\_\_ Designation: \_\_\_\_\_

Name of Organization: \_\_\_\_\_

Address: \_\_\_\_\_

Telephone No.: \_\_\_\_\_ (O) \_\_\_\_\_ (Fax)

\_\_\_\_\_ (H) \_\_\_\_\_ (HP)

Email: \_\_\_\_\_

Signature & Stamp

Date

**Photocopies are acceptable**



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## **One Day Technical Course on The potential tertiary commercial-scale plants using palm oil mill by-products. How feasible, variable & viable? Sustainable?**

*Organised by:*

**Agricultural Food and Engineering Technical Division, IEM**

**Date: 5<sup>th</sup> October 2019 (Saturday)**

**Venue: C&S and TUS Lecture Room, 2<sup>nd</sup> Floor, Wisma IEM, PJ**

**Time: 9.00am – 5.30pm**

**Speakers: Ir. Hor Kok Luen**

**BEM Approved CPD/ PDP hours: 7 Ref. No: IEM19/HQ/321/C**

### **REGISTRATION FEES**

	ONLINE	NORMAL (Offline)
<b>IEM Student Member</b>	150.00	180.00
<b>IEM Graduate Member</b>	250.00	300.00
<b>IEM Corporate Member</b>	400.00	450.00
<b>Non IEM Member</b>	550.00	600.00

### **CANCELLATION POLICY**

IEM reserves the right to postpone, reschedule, allocate or cancel the course. Full refund 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.

### **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.

## SYNOPSIS

All the while waste handling and management is the hottest topic of discussion by the authority and public in general. It is also actually the main concern and focus by the industry players. Conventionally the palm oil millers particularly for those with plantation background (mills owned by big plantation company) with big hectare of plantation area have less challenges compared to those commercial mills which have limited hectare of plantation land (in fact only industrial land with zero plantation land). At the same time, they are not only aiming for surviving but expanding rapidly and aggressively with latest holistic engineering approach in order to be more technically and commercially sustainable. This is more prudent and crucial particularly dealing with waste(s) that generated in the form of compliances and sustainability.

The curiosity from the industry is: what sort of **secret weapon** they have? What sort of advancement and matured technologies they have owned and deployed so far that can support them continuously to move on, to run the industry daily, monthly and yearly with almost full utilizing rate without having much issue of waste handling and management? The waste(s) highlighted here refer to solid, liquid, gaseous waste(s) respectively.

In fact, most of the **waste(s) have become marketed value products** with increasing demand as days go on. The products that sold will generate extra revenue to the company. The amount of revenue is in fact getting more and more substantial in terms of percentage for overall contribution. As everybody has aware and agreed, palm oil mills cannot sustain commercially if solely rely only on key products conventionally which mainly refer to crude palm oil (CPO) and Palm Kernel (PK). What sort of potential tertiary commercial-scale plants that can be set up in the palm oil mill complex? Any challenges, any limitation, any constraints when marketing these tertiary products? What are the appropriate involvements and participations of the governing bodies, contractors and potential technology providers that can be brought in to boost this industry in cohesive strength?

Let us postmortem it together.....

## SPEAKER'S PROFILE

Ir. Hor Kok Luen (P.Eng, PEPC, MIEM, First Grade Competent Steam Engineer, ASEAN Engineer, APEC Engineer, and International Professional Engineer) graduated from University of Science Malaysia (USM) in 2001. He is holding the Bachelor of Degree (Hons.) in Mechanical Engineering. He has more than 18 years of working experience in the palm oil mill & related downstream industries, inclusive of biogas power plant and biomass plant. He has vast experience in palm oil mill design, mill upgrading and mill troubleshooting as well as palm oil waste handling & management. As holding the qualification as **Competent First Grade Steam Engineer (JKKP, Malaysia)**, currently he is performing his professional service by taking the responsibility and challenges (overall mill operation) for a well-established palm oil group of company which owns 100 tons per hour capacity palm oil mills, plantations and subsidiary plants, which aggressively embark involving in **palm oil mill processing, long fiber plant, short fiber plant, organic waste water treatment plant design & management, 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)**. His registration number is C116782. He is a **qualified ASEAN Engineer (AE), APEC Engineer and International Professional Engineer MY\_E\_00573**. Currently he is the Deputy Chairman of Agricultural & Food Engineering Technical Division (AFETD), IEM.

## TIME

## OUTLINE

0830 - 0900

### REGISTRATION

0900 - 1030

- Brief notes of palm oil products and byproducts
- Difference between byproducts & wastes and its handling
- Conventional waste management (liquid, solid & gaseous phases)
- The awareness from waste to wealth & environmental concern

1030 - 1045

### MORNING TEA BREAK

1045 - 1300

- The compliances on operating a palm oil mill (DOE& JKPP, MPOB, MPOCC)
- The differences of functionality between a plantation agency and a commercial mill
- Exploration-potential tertiary plants (Palm kernel shell, biomass, biogas power plant, compost plant& others)

1300 - 1400

### LUNCH BREAK

1400 - 1530

- Exploration-potential plants (long & short fiber plant, high FFA oil, biochar plant)
- Market specifications & expectation on the products
- Feasibility study to have biogas plant with commercial scale
- Feasibility study to have long fiber plant-integrated/independent

1530 - 1545

### AFTERNOON TEA BREAK

1545- 1715

- Case study: mandatory and voluntary approach on tertiary treatment plant
  - Effluent treatment plant + methane capturing plant+ optimization
  - EFB treatment plant + long fiber plant/short fiber plant
  - Sustainability: proactive attitude and role(s) of policy maker, industrial investors and players, technology providers

1715 - 1730

### Q & A

#### Terms & Conditions:

- For **ONLINE REGISTRATIONS**, only **ONLINE PAYMENT** is applicable [via RHB and Maybank2u – Personal Saving & Personal Current; Credit Card - Visa/Master].
- Payment via **CASH / CHEQUE / BANK-IN TRANSMISSION / BANK DRAFT / MONEY ORDER / POSTAL ORDER / LO / WALK-IN** will be considered as **NORMAL 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.
- Fee paid is not refundable. Registration fee includes lecture notes, refreshment.
- The Organizing 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.