

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 FORM

Name(s)	IEM M'ship No. /Grade	Fees (RM)
SUB TOTAL		
TOTAL PAYABLE		

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PAYMENT DETAILS Cash RM _____
 Cheque no. _____ for the amount of RM _____
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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 Training Course on
The application/operation of solid fuel (biomass) steam boiler and latest environmental (DOE) compliances (Air Quality)
The RELEVANT systems and technologies that available and its limitation/challenges WHEN APPLIED.

Speaker**Ir. Hor Kok Luen****Date**

20th October 2018 (Saturday)
8.30am - 5.30pm

Venue

TUS Room, 2nd Floor,
Wisma IEM, Petaling Jaya, Selangor Darul Ehsan

Grade	Online Fee	Normal Fee
IEM Student Member	RM 80.00	RM 100.00
IEM Graduate Member	RM 150.00	RM 180.00
Corporate Member	RM 250.00	RM 300.00
Non IEM Member	RM 400.00	RM 500.00

Closing Date: 13th October 2018**BEM Approved CPD/PDP Hours: 7 Ref. No: IEM18/HQ/207/C****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.

TENTATIVE PROGRAMME

TIME	PROGRAMME
08.30am-09.00am	Registration
09.00am-10.30am	<ul style="list-style-type: none"> Brief Introduction of steam boiler Knowing more on the solid fuel (biomass) steam boiler Role of Solid fuel boiler (palm oil mill particularly). Now and future The design & operation characteristic of the boiler in the industry
10.30am-10.45am	Tea Break
10.45am-13.00pm	<ul style="list-style-type: none"> DOE requirement: scope of monitoring & GUIDED SELF REGULATORY (GSR) The concern of Solid fuel boiler emission control: limit-150mg/Nm³ Exploration-Technologies that available (part 1 & 2) Market feedback & challenges/constrains on the technologies
13.00pm-14.00pm	Lunch
14.00pm-15.30pm	<ul style="list-style-type: none"> Exploration-Technologies that available (part 3 & 4) Market feedback & challenges/constrains on the technologies DOE approach on regulatory: Past and now DOE mandatory on GSR-Industrial players' approach Market response and feedback from industry players as well as technology provider (optimize solid fuel burning in boiler)
15.30pm-15.45pm	Tea break
15.45pm-17.15pm	<ul style="list-style-type: none"> Case study: A 45/90 TPH palm oil mill: Old and new boiler install Challenges (technical and commercial) for new compliances after new system install. Words from the industry Sustainability: proactive attitude and role(s) of policy maker, industrial investor and player, technology providers
17.15pm-17.30pm	Q & A session

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.

SYNOPSIS

Solid fuel steam boiler has been in operating mode in the industries for long time. Basically the solid fuel that available locally inclusive of rice husk, wood chip, coal, oil palm fruitless skin fibers (mesocarp fibers), oil palm empty fruit bunch fiber (EFB fiber) and other residues.

For many years, steam has acted as a main energy source in factories due to lower operating cost concern. It can be produced in matured approaches and of course having good characteristics in the environmental aspects. A "steam producer" is therefore introduced to the industry, and this machine is known as STEAM BOILER. When steam is produced, the steam turbine can be coupled and start functioning to generate power. The exhaust steam of the turbine are channeled and stored in a steam receiver before distributed evenly to the various processing stages.

Diesel generator is a standby power source when the factory is idling unless the facilities of TNB power supply is available. Diesel engine can also be applied when steam turbine couldn't supply sufficient power that factory required (mainly on supporting basis). Therefore steam turbine and generator can be synchronized to supply sufficient power for the factory.

In terms of compliances, environmental compliances particularly, there are different category and scope of compliances since the first day operation of the solid fuel steam boiler. With more and more correlated factors to be considered, inclusive of global market corporate image concern and global warming concerns, the rules and regulations for compliances has become more and more stringent. Nevertheless the factors of commercial sustainability cum corporate responsibility shall drive the industries to a better platform. This is so called PRACTICAL & SUSTAINABLE COMPLIANCES. Simultaneously the Guided Self Regulatory (GSR) approach has become very crucial on performance monitoring.

BIODATA OF SPEAKER



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 paper presenter 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), The Institutions of Engineers Malaysia, IEM.