

Mechanical Engineering Technical Division  
 The Institution of Engineers, Malaysia  
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 46720 Petaling Jaya, Selangor  
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**REGISTRATION:**

| Name(s)              | IEM M'ship No. / Grade | Fees (RM) |
|----------------------|------------------------|-----------|
|                      |                        |           |
|                      |                        |           |
|                      |                        |           |
| Total Amount Payable |                        |           |

Company: \_\_\_\_\_

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

Mobile: \_\_\_\_\_ Tel(O): \_\_\_\_\_ Fax: \_\_\_\_\_

E-mail: \_\_\_\_\_

(Please write clearly as the "Confirmation Notification" will be sent via email)

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

Signature: \_\_\_\_\_ Date: \_\_\_\_\_

**PAYMENT DETAILS**

Cash RM \_\_\_\_\_

Cheque no. \_\_\_\_\_ for the amount of RM \_\_\_\_\_  
 (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 before the closing date at the latest.
- If payment is not received and verified within the stipulated time, the registration fee will be reverted to the normal registration fee.
- 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.



Organised by:  
 Mechanical Engineering Technical Division,  
 The Institution of Engineers, Malaysia

**ONE DAY COURSE ON  
 FINANCIAL AND ENGINEERING ECONOMICS THAT YOU  
 CAN USE FOR YOUR ENGINEERING CAREER AND IN YOUR  
 EVERYDAY LIFE**

By:  
 Ir. Dr. Philip Tan

**24 November 2014 (Monday)  
 9.00am – 5.00pm**

**Venue:**  
 Tan Sri Prof. Chin Fung Kee Auditorium, 3<sup>rd</sup> Floor,  
 Wisma IEM, Petaling Jaya

**REGISTRATION FEES**

| Grade                | Online Fee | Normal Fee |
|----------------------|------------|------------|
| IEM Student Member   | RM 150.00  | RM 200.00  |
| IEM Graduate Member  | RM 350.00  | RM 400.00  |
| IEM Corporate Member | RM 450.00  | RM 500.00  |
| Non IEM Member       | R M 650.00 | RM 700.00  |

**Closing Date:**

**BEM Approved CPD/PDP Hours: 7  
 Ref. No: IEM14/HQ/375/C**

## **SYNOPSIS**

### **Areas of Coverage**

1. Time value of money: future value, present value of money.
2. Some terms in economics or financial dealing you may come across in future.
3. Discount rate. Bringing future stream of moneys to one common reference time for evaluation.
4. Basic concepts of levelized costing of future steam of costing. Levelized pricing and pricing with escalation.
5. Internal rate of return. The use of IRR in your daily activities and in some areas in stock market. Examples of detecting opportunities in the stock market which could potentially make you some pocket money.
6. Using of IRR and XIRR in spreadsheet.
7. Evaluating competing tenders. Effect on evaluated tender results due to: a) timing of payments, b) if lifetime operating costs is added to tender pricing, and c) sensitivity to tender price if disbursements are grouped within yearly period. Use of NPV and XNPV in spreadsheet.
8. Use of payback period, discounted payback period and internal rate of return approaches for assessing of investments. Potential drawbacks of payback period and IRR methods when assessing your investments.
9. Tricks that could be use to your advantage when tendering: if you understand and know how the evaluation methodology is to be carried out.
10. How to price your product under a) take-or-pay concept, and b) capacity usage payment and variable off-take payment. Illustrations of how each pricing concept is calculated.
11. Calculating the return of your investment on a privatized BOO (or BOT) project. The effect on your return of your investment when leveraged with borrowing. Danger of fixed pricing when input costs are volatile.

| <b>PROGRAMME</b> |  |
|------------------|--|
| 0830 – 0900      | Registration   |
| 0900 – 1030      | Fundamentals of engineering economics and financial evaluation |
| 1030 – 1045      | Tea break  |
| 1045 – 1300      | Methods of project/investment appraisal                        |
| 1300 – 1400      | Lunch  |
| 1400 – 1530      | Application of different types of investment appraisal         |
| 1530 – 1545      | Tea Break  |
| 1545 – 1700      | Project implementation models                                  |
| 1700 – 1730      | Questions and Discussions                                      |
| 1730             | Closure  |

## **BIODATA OF THE SPEAKER**

**Ir. Dr. Philip Tan** has involved himself with the electricity power industry for the last 45 years. He is involved following activities and in areas related to energy, electric power and engineering:

1. Member Board of Commissioners of the Energy Commission of Malaysia since appointment from 1st September 2009.
2. Current Chairman of the Board of Governors, Montfort Boys Town.
3. The past President of Penjanabebas (the Association of Independent Power Producers of Malaysia) for three terms. However no longer associated with Penjanabebas or any IPP after appointment as Member Board of Commissioners of the Energy Commission of Malaysia.
4. Council Member of the Institution of Engineers Malaysia (2008/2009, 2009/2010 and 2010, 2011),
5. Member of the Energy Consultative Panel.
6. Past Member of the Advisory Council to Institute of Energy Policy and Research (IEPRE).
7. Past committee member of Energy Council of Malaysia,
8. Member of SIRIM's Technical Committee on Petroleum and Gas Measurement,
9. Former Member of the Steering Committee Malaysian Electricity Supply Industries Trust Account for Malaysia Electricity Supply Industry Trust Account (MESITA) before appointment Member Board of Commissioners of the Energy Commission of Malaysia.
10. Past Member the Technical Committee for Malaysia Electricity Supply Industry Trust Account before appointment as Member Board of Commissioners of the Energy Commission of Malaysia
11. Former member of Board of Trustees for Cancerlink Foundation,
12. Past Member of Malaysian Productivity Corporation (MPC) Utility Consultative Panel for establishing benchmarking KPIs for the various types of power generating plants,
13. Member of Federation of Malaysian Manufacturers (FMM) Energy Management Committee,
14. Member of the Steering Committee of Energy Efficiency Master Plan headed by Ministry of Energy, Green Technology and Water.
15. Past Member of Industrial Advisor Panel to University Tunku Abdul Rahman for Engineering Courses.
16. Past Member of Industrial Advisor Panel to Asia Institute of Medical Science and Technology (AIMST) for Engineering Courses (particularly in Electrical and Electronic Engineering).

Dr Philip Tan was a sponsored student of National Electricity Board (NEB), now Tenaga Nasional Berhad (TNB) and graduated from University of Malaya with Bachelor of Engineering (1st Class Honours).

Dr Philip Tan started his working career with NEB in March 1969 and was attached to the Prai Power Station until September 1970 when he left to pursue his Doctor of Philosophy at University of Southampton, England. He is a registered Professional Engineer, a Chartered Engineer, Fellow of the Institution of Engineers Malaysia, a Member of Institution of Mechanical Engineers UK.

Upon completing his Ph.D., he rejoin NEB in January 1974. Dr Philip Tan opted for optional retirement from TNB in 1 January 1996 to join Genting Sanyen Power Sdn Bhd initially as Senior General Manager, subsequently as Executive Vice President and finally then as Technical Direction (Power).