

# Technical Talk on "Project Financial Modeling – How to Conduct Feasibility Studies using the Engineering Finance Methodology to Optimise the ROI and Enhance the Long-Term Sustainability"

Organised by: Marine Engineering & Naval Architecture Technical Division, IEM  
BEM Approved CPD/PDP Hours: 2 Ref. no: IEM21/HQ/503/T

**Date** : 22<sup>nd</sup> January 2022 (Saturday)  
**Time** : 10.00am – 12.00noon (Refreshments will be served at 9.30am)  
**Venue** : Malakoff Auditorium, Ground Floor, Wisma IEM, Petaling Jaya  
**Speaker** : Ir. Dr. Maulud Abdul Latif

## SYNOPSIS

With the advent of Industrial Revolution 4.0, Globalized and Borderless World phenomenon compounded with the shifting of the global financial center of gravity to EuroAsia the role of Professional Engineers has become more challenging. The super-ordinate objective of the Engineering Finance methodology is to create CEO/Global Professional Technopreneurs.

*"To face up to the challenges of the globalised world, future CEOs must have a thorough understanding of 'Engineering Finance' to get the most 'Cost-Efficient' project design and thus obtain the 'optimum' possible yield for the project"* DR Ir Maulud – Engineering Doctorate Thesis, Universiti Teknologi Malaysia/Warwick (2005)

*"Businesses of the future will require new strategies, innovation and creativity to ensure their competitiveness. 'Engineering Finance' gives a new and innovative way of developing a viable business model by integrating engineering with finance and other parameters to meet a viable business or project objectives in a very simplified approach...."* Prof DR Hamdani Saidi, Campus Director, International Campus, Universiti Teknologi Malaysia (2012)

This short talk will give an insight into the Engineering Finance methodology. Engineering Finance is defined as **Engineering** using financial methodologies to create **"Cost Efficient"** project designs thus enhancing the return on investment. Thus, Engineering Finance methodology is about Projects Financial Modelling (*inter alia*, to determine the financial viability of a project). In essence, the Engineering Finance workshops will create **Cost-Conscious** generation of professionals to face up to the globalization and borderless phenomenon.

This Engineering Finance methodology has been successfully applied to few projects in Malaysia, India, Indonesia and Australia and has shown vast improvements in its profitability enhancing its project IRRs, shortening its payback period, improving its cash flow, basically enhancing Wealth.

The Engineering Finance methodology has two tools:

- Tool no 1: **MAL Cost Efficiency Model**. This is engineering in nature. It is used in the (re)structuring of project to **Optimise/enhance return on investments**. It makes the projects more 'Cost Efficient'.
- Tool no 2: **Techno-Financial Model**. This is the financial modelling part used to determine the Project IRR, ROI, payback period, IDC, Wcap etc. It is to ensure **long-term sustainability**.

The Engineering Finance methodology is advocating that in the future Engineers, rather than accountants, should be responsible to determine the Financial Viabilities of proposed projects that they design. Engineers and Accountants who does not know how to conduct Feasibility Studies and implement projects will not progress well up the corporate ladder and remain the 'backroom boys'. The ones that will move forward and goes up the corporate ladders are the **Business Management Engineers** – this is the objective of the Engineering Finance methodology – to create CEO/Global Professional Technopreneurs.

## SPEAKER BIODATA



Ir. Dr. Maulud Abdul Latif obtained his **Engineering Doctorate** (EngD) in Engineering Finance from UTM/University of Warwick (UK). He also holds an **MBA Finance** from the University of Queensland Business School (Aust), a B. Sc. (Hons) in **Mining Engineering** from the University of Wales (UK) and a Diploma in **Mechanical Eng.** from Universiti Teknologi Malaysia. In addition, he holds the Dredgemaster Certificate of Competency and is a member of the Board of Engineers, Malaysia, The Institution of Engineers, Malaysia and the Institute of Mineral Engineers. He started his career in Malaysia Mining Corporation in 1977 and have extensive experiences in project feasibility studies (technical, marketing and finance) and mine management. Between 1984 and 1992, he worked with various reputable organizations including Permodalan Nasional Berhad and the Ministry of Finance (as Corporate Adviser to the Minister of Finance Incorporated). He has acquired vast corporate experience not only in project financing but also in corporate restructuring and turnaround. He was also involved in several privatization (PFI) projects. Since 1992, he was actively involved in project feasibility studies in various sectors such as power generations, renewable energy, coal mining and property development projects in Indonesia, India, Australia and Malaysia. In total, he has 38 yrs of experience in the industry and 4 yrs in the academia. Prof. (B) DR Maulud was also the Business Development and Engineering Finance Advisor to the Selangor Menteri Besar Incorporated on the Klang River Rehabilitation project and the Selangor Water Supply Restructuring Project. He now conducts seminars and workshops on **"HOW TO CONDUCT FEASIBILITY STUDIES"** using the Engineering Finance methodology to Enhance ROI and ensure its long-term sustainability.

**Ir. Ts Abdul Malik Hussein bin Abdul Jalil**  
Chairman,  
Marine Engineering & Naval Architecture Technical Division, IEM

## FEE ANNOUNCEMENT (Effective: 1<sup>st</sup> October 2017)

### Members:

- (i) Registration Fee: No Charge
- (ii) Administrative Fee:
  - (a) Online RM15

### Non-Members:

- (i) Registration Fee: RM50
- (ii) Administrative Fee: RM20

- Limited seats are available on a **"first come first serve basis PRE-REGISTERED ONLINE"**
- (Maximum 65 participants)
- To secure your seat, kindly register online at [www.myiem.org.my](http://www.myiem.org.my)
- **NO WALK IN IS ALLOWED**

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I have read and understood IEM's Personal Data Protection Notice published on IEM's website at [www.myiem.org.my](http://www.myiem.org.my) and I agree to IEM's use and processing of my personal data.

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