



ONE DAY COURSE ON “TRANSMISSION LINE DESIGN & CONSTRUCTION OVERVIEW”

SPEAKERS

Y.BHG. DATUK Ir. N. PURUSHOTHAMAN NAIR
Ir. T. PRABAKARAN RAJAH
Ir. MK. MUTHUKUMAR

Date : 31ST OCTOBER 2022 (MONDAY)
Venue : Malakoff Auditorium
Ground Floor, Wisma IEM, P.Jaya, Selangor
Time : 9.00 a.m. – 6.00 p.m.

**BEM Approved CPD/PDP Hours: 7.0
(IEM22/HQ/375/C)**

Closing Date: 24TH OCTOBER 2022

NO online registration will be allowed after the Closing Date

Organized & Hosted by:
Building Services Technical Division (BSTD), IEM

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For intending participants who choose to ‘walk in without prior registration’,
IEM SHALL NOT be responsible for any direct or consequential losses”.**

OUR SPEAKERS

SPEAKER 1



YBHG. DATUK Ir. PURUSHOTHAMAN NAIR

***B.Eng (Hons), Msc, MEng, P.Eng
MIEM, MIET, PMI (UK), MACSE, Asean Eng***

Ir. Purushothaman Nair is qualified Civil Engineer with BEng (Hons) Civil, MSc Construction Management and MEng Civil-Geotechnics with more than 27 years of experience in Power Industry, mainly in transmission line projects up to 700 kV (design and construction), substation civil works (survey, earthworks, building, infrastructure and switchyard for AIS/GIS substations up to 500 kV) and generation plants.

He worked in TNB from 1994 till 2008 and then joined Parsons Brinckerhoff Ltd, Newcastle, United Kingdom as Principal Transmission Lines Engineer from 2008 till 2014 mainly in United Kingdom for UK National Grid, Southern Scottish Power and all worked in many countries around the globe.

Ir. Purushothaman Nair involved in projects both design, construction, research and studies in United Kingdom, Malaysia, Philippines, Brunei, Singapore, Cambodia, Thailand, India, Sri Lanka, Pakistan, Kenya, Uganda, Ethiopia, Libya, Qatar, Nigeria, Guatemala, Lebanon, Djibouti, Ghana, France, USA, Laos, Australia, South Africa, Hong Kong, China.

Ir. Purushothaman Nair returned to Malaysia through Talent Corporation returnee program and joined Afrima Consulting Engineer Sdn Bhd as Technical Director. With his leadership and reputation in the power industry Afrima Consulting Engineer Sdn Bhd grow steadily and currently with more than 50 staffs is one of the leading consultant in power industry locally and globally with actively involving in Power Transmission projects, generation and renewable energy projects.

His expertise is in project management, geotechnical engineering (soil investigation, analysis of soil data, soil classification, uplift foundation design, normal and pile foundation design, rock foundation design, slope stability analysis, slope protection, retaining walls, gabion wall, geotextile, sheet-pile design, prefabricated vertical drain design, soil settlement analysis, foundation tests, soil tests, pile test; PDA, PIT and MLT, stone column design, rock engineering and other related geotechnical design), power plant civil engineering (turbine foundations, buildings, pipelines, tanks etc.) and transmission line engineering (survey works, ROW, feasibility studies, due diligence, tower spotting (manual, PLS CADD, OPTIMA), tower designs, conductor design, insulator, fittings, OPGW, economic analysis, resettlement, refurbishment projects etc.) for these types of projects.

SPEAKER 2



Ir. MK MUTHUKUMAR
B.Eng (Hons), P.Eng, MIEM

Ir. Muthukumar is qualified Civil Engineer with BEng (Hons) Civil with more than 27 years of experience in Power Industry, mainly in transmission line projects from low voltage up to 500kV (design and construction) and substation civil works (survey, earthworks, building, infrastructure and switchyard for AIS/GIS substations up to 500 kV).

His expertise is in project management, geotechnical engineering (earthworks, soil investigation, analysis of soil data, soil classification, foundation design, foundation tests, soil tests, pile test; PDA, PIT and MLT), substation civil works, tower profiling, tower spotting (manual, PLS CADD), review tower design calculation and review line fittings.

He worked in TNB from 1993 till 1995 and then joined Arab Malaysian Best & Crompton Sdn Bhd as Transmission Lines Engineer from 1996 till 2009 in various places in Malaysia in TNB system and in Sabah. He also involved in Sabah East Coast 275kV Transmission Lines which is one of the toughest terrains in Malaysia and in the world. The works mainly using helicopters. In end 2009, he joined with YBS Tenaga Sdn Bhd as Project Head in-charge of design and construction team for Sabah Rural Electrification Projects till 2014. He joined Afrima Consulting Engineer Sdn Bhd as Principal Consultant till to date and rose as Associate Director.

Ir. Muthukumar also involved in projects both design, construction, research and studies in Malaysia, Philippines, Cambodia, Kenya, Laos, Fiji and Papua New Guinea.

Other related experiences are;

- Experienced in Solar Power Plant civil design works.
- Experienced in substation electrical works such erection of steel structure & electrical equipment.
- Familiar with Auto CAD, PLS CADD & Basic PLS TOWER
- Witnessing "type tests" and FAT for transmission line materials such conductors, tower, line fittings and insulator strings
- Worked in Low Voltage projects for SABAH rural electricity projects (KKLW) in YBST
- Experienced as a Safety & Health Officer with Green Book holder and being familiar with Safety and health regulation.
- Experienced in erection and stringing works for transmission line project.
- Developed quality plan, QA/QC checklists, Project Management Manuals for transmission line and substation civil works
- Experienced in coordinating 11kV, 33kV and 132kV underground cable works such as excavation, laying cable, jointing, and termination and testing.

SPEAKER 3



Ir. T. PRABAKARAN RAJAH
B.Eng (Elec)Hons, M.Sc (Const.Management),
P.Eng(Malaysia) MIEM, C.Eng (MIET), GBIF (MGBC).

Ir. Praba is also 500kV Electrical Competent and Service Engineer with licenses issued by Energy Commission of Malaysia He has extensive experience in the Power Transmission Line industry and has worked under various capacities in the Development and Construction of Transmission Lines and substation up to 500kV. He has over 29 years of working professional experience in this field.

Ir. Praba has also global experience and expertise covering ASEAN Utility countries as Owner's Engineer and Independent Engineer. He is currently serving in Afrima Consulting Engineer Sdn. Bhd. as Director in charge of project management and construction, mainly focus on special projects involving high complexities and technical challenges.

Ir. Praba is Registered Professional Engineer (PEPC), Chartered Electrical Engineer, Registered Competent / Service Electrical Engineer up to 500kV and Certified Energy Manager (CEM) for Energy Efficiency projects.

Ir. Praba has obtained his BEng (Hons) Electrical Engineering from Nottingham Trent University, and Msc in Project Management (Construction Management) from Herriot Watt University, UK. He has taken lead roles as Project Manager to handle more than 500 personnel at site to achieve Project milestone dates, meeting Client's expectation and ensuring overall project operational cost falls within the budgeted project cost.

He has worked for GEC (Malaysia), MRCB/TTSB from 1992 till 2009 and then as Freelance Resident Engineer for 5 years before joining Afrima Consulting Engineer in 2014. Gain extensive experience by working renowned International Consultants like Black-Veatch International (BVI) from USA and Hydro Quebec form Canada. Completed the Malaysia's 1st 500kV Power Transmission Project from Gurun, Junjong, Air Tawar, Bukit Tarek to Kapar and from Yong Peng (E) to Bukit Batu Substations. Also involved in Sabah's 1st 275kV Power Transmission Project Sabah East-West Interconnection connecting from Kasigui to Segaliud Substations which involves the Construction of 60Mvar Static Var Compensators. Currently, involved in the implementation in the Large-Scale Solar (LSS) Farms projects in Malaysia, Kenya and Cambodia up to 50MW.

Ir. Praba also involved in Overseas projects both design and construction 400/220kV Nairobi East Station to Lamu Substation, Kenya. 230kV Interconnection Design, 240MW Don Sahong Hydropower Plant Project, Laos, 230kV Double Circuit Transmission Lines and Substations Kg Cham to Kratie, Bek Chan to Oddor Meanchey Cambodia.

SYNOPSIS

Transmission line is “a highway” to carry power loads from one station to another station, therefore; it is one of the most important projects in power business and in general. The design and construction of the power lines is not as easy as it is. It is niche engineering with combination of civil, electrical and mechanical engineering.

In Malaysia, the industry is mainly involved TNB, SEB and SESB. However, recently the development in Independent Power Producers particularly the Large Scale Solar (LSS) projects also involving the Interconnection Facilities mainly the transmission lines and substation projects.

The growth in power industry in global market and the shortage of the professionals also encouraging.

Our short course is mainly as introduction and overview of the design and construction of the transmission lines for the beginners and young engineers.

At the end of this course, the participants will be able to: -

Overview of the management and engineering aspects of the transmission line project phases in terms of: -

- ❖ Design and Planning Line Route and Requirement
- ❖ Planning On Towers and Foundation Types
- ❖ Selecting Conductors, Insulators, Fittings, Accessories
- ❖ Site Erection and Stringing Activities
- ❖ Safety Aspect During Construction
- ❖ Monitoring and Control During Construction

PROGRAMME

Time	Topics
08:30a.m. – 09:00a.m.	Registration. Welcome Coffee / Tea
09:05 a.m. – 09.10 a.m.	Welcoming & Introduction
09:15 a.m. – 10.30 a.m.	Session 1 – Introduction Of Transmission Lines & Tower Spotting
10:30 a.m. – 10.45 a.m.	Morning Coffee / Tea Time
10:45 a.m. – 12:30 p.m.	Session 2 – Tower Foundation, Tower Structure
12:30 p.m. – 02:00.p.m.	Lunch Buffet
2:00 p.m. – 3:30 p.m.	Session 3 – Electrical and Mechanical Aspect of Transmission Lines
3:30 p.m. – 3:45 p.m.	Afternoon Coffee / Tea Time
3:45 p.m. – 5:30 p.m.	Session 4 – Construction and Project Management
5:30 p.m. – 6.00 p.m.	Question & Answer Session End of Seminar

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

For further details, kindly contact:

The Institution of Engineers, Malaysia
 Bangunan Ingenieur, Lots 60/62, Jalan 52/4, P.O. Box 223 (Jalan Sultan), 46720 P.Jaya, Selangor
 Tel: 603-7968 4001/2 Email : shahrul@iem.org.my, parimala@iem.org.my, suriani@iem.org.my

REGISTRATION FORMS

ONE DAY COURSE ON "TRANSMISSION LINES DESIGN AND CONSTRUCTION OVERVIEW" 31ST OCTOBER 2022

Tel: 603-7968 4001/2 Email : shahrul@iem.org.my, parimala@iem.org.my, suriani@iem.org.my

	Online Fee	Normal Fee
Student Member	RM 150.00	RM 180.00
Graduate Member	RM 250.00	RM 300.00
Corporate Member	RM 400.00	RM 450.00
Non IEM Member	RM 600.00	RM 700.00

No	Name(s)	Membership No.	Grade	Fee (RM)*
SUB TOTAL				
+ 6% SST				
TOTAL PAYABLE				

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'. (SHOULD PAYMENT IS MADE, KINDLY EMAIL THE
'BANK-IN-SLIP' TO IEM FOR VERIFICATION BEFORE THE EVENT FOR EASY REGISTRATION)

FULL PAYMENT must be settled before commencement of the seminar, otherwise participants will not be allowed to enter the hall. If a place is reserved and the intended participant fails 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. The Registration Fee includes lecture notes, refreshment and lunch.

For **ONLINE REGISTRATIONS**, please note that payment **MUST** be made **BEFORE** the closing date. If payment is not received within the stipulated time, the registration fee will be reverted to the normal registration fee.

Contact Person: _____ Designation: _____

Name of Organization : _____

Address : _____

Telephone No. : _____ (O) Fax No : _____ (O)

Handphone: _____ (HP) Email: _____

Signature & Stamp

Date

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
- 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.

ADVERTISEMENT BOOKING FORM (EVENT BOOKLET)

ONE DAY COURSE ON “TRANSMISSION LINES DESIGN & CONSTRUCTION OVERVIEW”

31ST OCTOBER 2022 (Monday)

Organised by :

Building Services Technical Division (BSTD), The Institution of Engineers, Malaysia
No. 60/62, Jalan 52/4, P.O. Box 223 (Jalan Sultan), 46720 Petaling Jaya, Selangor
Tel No. 03-79684001/2 Email: shahrul@iem.org.my

Chairman, Building Services Technical Division (BSTD),

We would like to place an advertisement in the EVENT BOOKLET of the ONE DAY COURSE (31st October 2022) as indicated below and attach herewith a cheque no. for the sum of RM made payable to “THE INSTITUTION OF ENGINEERS, MALAYSIA” being our booking fees:-

Tick (v)	Location	Advertisement Rates	Complimentary Participant Seat	Promotion Table @ Registration Foyer Only
	Outside Back Page (Colour)	RM 6,000.00	3 seats	1 Table with 2 chairs
	Inside Front Page (Colour)	RM 4,500.00	2 seats	1 Table with 2 chairs
	Inside Back Page (Colour)	RM 4,500.00	2 seats	1 Table with 2 chairs
	Inside Run of Page (Colour)	RM 2,500.00	1 seat	Nil

**Advertisement Artwork must be accompanied with payment before printing.*

PAYMENT INFORMATION:

✓ Account Name : THE INSTITUTION OF ENGINEERS, MALAYSIA
✓ Account Number : 232-303-911-0
✓ Bank Name : UNITED OVERSEAS BANK (UOB)
✓ Bank Address : NO 2-6, JALAN TENGAH, 46200 PETALING JAYA, SELANGOR
✓ Swift Code : UOVBMK1025
✓ Email Address for Receiving Remittance Advise : finance@iem.org.my / shahrul@iem.org.my

CONTACT INFORMATION:

Contact Name:			
Organisation:			
Position:			
Mailing Address:			
Contact Nos.:	Tel:		Fax:
Hand phone No.			
E-mail:			

Signature: _____

Date: _____

Company Stamp: