

# ONE DAY DAY WORKSHOP ON "ROBUST ENGINEERING"

#### SPEAKER;

### Assoc. Prof. Dr. Khairur Rijal bin Jamaludin

Date : 16<sup>th</sup> July 2019 (Tuesday)

**Venue**: Auditorium Tan Sri Prof. Chin Fun Kee

3<sup>rd</sup> Floor, Wisma IEM Petaling Jaya, Selangor : 9.00 a.m. – 5.30 p.m.

BEM Approved CPD/PDP Hours: 7.0 Ref.No: IEM19/HQ/258/S

#### Closing Date: 08<sup>™</sup> JULY 2019

Time

NO online registration will be allowed after the Closing Date

#### Organised by:

Engineering Education Technical Division (E2TD), The Institution of Engineers, Malaysia

#### **Cancellation Policy**

No cancellation will be accepted prior to the date of the event. However, replacement or substitute may be made at any time with 7 days 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**

Robust Engineering is the creation of world renowned Japanese quality guru Dr. Genichi Taguchi. This workshop outlines some important concepts and case studies of Taguchi Methods used by organizations that are at the cutting edge of technologies and continuing to lead the way using Robust Engineering. The expectation of robust engineering is to minimize the variations to the products function. The robust engineering will focus on optimizing the energy and result to the optimum products function. By doing this, it will enhance the basic and performance need of customers and it will minimize the cost of failure in the market. This is in line with the philosophy of Dr Taguchi: "The engineered quality of a product is assessed by estimating the loss imparted by the product to the society from the time the product is shipped". The workshop aims to illustrate the basic of Taguchi method for improving robustness of the products, process and the system and then eliminate loss to society due to cost of poor quality. The workshop is based on case studies particularly in the automotive and manufacturing industries.

#### **OBJECTIVE**

At the end of the session, participants will be able to:

- 1. Understand the concepts of Robustness with Taguchi Method in products design
- 2. Appreciate the idea of Design for Quality and able to minimize the product failure in the market
- 3. Optimum the products functions by minimizing the design variations of the products

AIM

The aim of the workshops is to help participants understand the relationship of the energy function, noise factor and control factor to the ideal function and able to optimize it in order to minimize cost of failure in the market.

#### **SPEAKERS**



**Khairur Rijal** is currently an associate professor at the Genichi Taguchi Centre of Quality and Sustainability in Razak Faculty of Technology and Informatics, Universiti Teknologi Malaysia. He received his bachelor degree in Mechanical Engineering from Universiti Teknologi Malaysia (UTM) in 1996. After working with Proton, he was offered an academia position at UTM. He obtained his M.Sc in Advanced Mechanical Engineering from the University of Warwick, UK and PhD from Universiti Kebangsaan Malaysia. He received direct guidance on robust quality engineering from the son of Dr Genichi Taguchi and he was blessed by the family to establish Genichi Taguchi Centre for Quality and Sustainability in UTM. His research interest is on Quality and Sustainability.

#### **PROGRAMME**

TIME	PROGRAMME
08.30 - 09.00	Registration and Welcome Coffee / Tea
09.00 – 09.05	Welcome Address
09.05 – 10.00	Session 1 : Introduction to Robustness in Taguchi Method
10.00 - 10.15	Morning Tea Break
10.15 – 11.15	Session 2 : Signal, Noise and Variations in Products Functions
11.15 – 12.15	Session 3:  Dynamics Optimization with Taguchi Method
12.15 – 13.00	Q & A Session and Discussion
13.00 – 14.00	Lunch
14.00 – 15.00	Session 4: Static Optimization with Taguchi Method
15.00 – 15.15	Afternoon Tea Break
15.15 – 17.15	Session 5 : Another method by Dr Genichi Taguchi
17.15 – 17.30	Q & A Session and End of Seminar

<sup>\*</sup> IEM reserves the right to postpone, reschedule, allocate or cancel the course.

#### For further details, kindly contact:

The Institution of Engineers, Malaysia
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46720 Petaling Jaya, Selangor

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#### **REGISTRATION FORM**

# ONE DAY WORKSHOP ON "ROBUST ENGINEERING" 16<sup>TH</sup> JULY 2019

REGISTRATION FEE								
		ONLINE		NORMAL FEE				
				(via email /walk-in)				
Student Members		150.00		180.00				
Graduate Members		250.00		300.00				
Corporate Members		400.00		450.00				
Non-IEM Members (all the above categories)		550.00		600.00				
No	Name(s)	Membership No.	Grade		Fee (RM)*			
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reserve	<u>PAYMENT</u> must be settled before commencement of the seminar, d and the intended participant fails to attend the course, the fee is to be sundable. The Registration Fee includes lecture notes, refreshment and	settled in full. If the part						
	<b>JLINE REGISTRATIONS</b> , please note that payment <b>MUST</b> be made ed time, the registration fee will be reverted to the normal registration fee.	BEFORE the closing	<b>date</b> . If paym	nent is	not received within the			
Contact Person :		esignation :						
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Handphone :(HP)		mail:						

## Signature & Stamp 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

Date

- 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
- 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.