



### 3-Days International Joint Workshop

## Weld Fatigue Assessment and Life Extension Technique on Structural High Strength Steel

#### Date:

26th – 28th September 2017

#### Time:

9am – 5pm

Hotel Tropicana Kuala Lumpur  
40100 Shah Alam, Selangor

**Fee for IEM/ImechE-Member: RM 1950**

(Fee for Non-Member: RM 2450)

(Subject to 6% GST)

#### Payment Method (Bank transfer ONLY)

Account Name: Bendahari UiTM

Account Number: 105140003422

Bank Name: Affin Islamic Bank Berhad

Swift Code: PHBMMYKL (for overseas participant)

(Registration & Payment deadline: 31st August 2017)

**BEM Approved CPD/PDP Hours: 19.5**

**Ref No: IEM17/HQ/226/W**

**Speakers Profile and Facilitators**



Dr. Martin Leitner MBA is an Assistant Professor at the Chair of Mechanical Engineering at the Montanuniversität Leoben, Austria. His research focuses on manufacturing and technological effects on the fatigue life of metallic components. Thereby, one emphasis is laid on the local fatigue strength of welded high-strength steel structures incorporating the influence of modern post-treatment methods such as the High Frequency Mechanical Impact (HFMI) treatment. Dr. Leitner serves as Expert in several Commissions and Working Groups within the International Institute of Welding (IIW) and exhibits comprehensive experience regarding the experimental and numerical fatigue strength assessment of welded and HFMI-treated high-strength steel joints.



Assoc. Prof. Dr. HP Manurung IWE/EWE, CEng IMechE is an Assistant Professor at Faculty of Mechanical Engineering, UiTM Shah Alam since 2005. He has more than 15 years experience in the field of Advanced Welding Technology, Welding Integrity and Virtual Manufacturing. Dr. Manurung is a Certified International Welding Engineer (IWE) and Laser Technologist as well as Laser Safety Officer. He is since 2013 appointed as consultant for Life Extension Technique using HFMI/PIT by a German company.



Dr. Mohamed Ackiel Mohamed is currently a Specialist in the Fabrication and Joining Section at University Kuala Lumpur Malaysia France Institute (UNIKLMFI), Malaysia as well as being a qualified welding inspector with CSWIP 3.0 and 3.1 qualifications. He is also the Chairman of the working group for welding inspection bodies at Standards Malaysia. His research experiences are mainly in fatigue on welded structure and friction stir welding. He has published numerous scientific articles as well as presents in many international and local conferences. Dr. Ackiel is since 2013 appointed as consultant for Life Extension Technique (HFMI/PIT) by a German company.

Prof. Emeritus Dr.-Ing. Darwin Sebayang (CICI Universitas Mercu Buana, Jakarta), Azriq Zainul Abidin (Director of TECHNOGERMA ENGINEERING & CONSULTING/TEC), Mohd Yunus Mohd Noor (Marketing Director of TEC), Dahia Andud (UniKLMFI), Muhd Faiz Mat (UiTM Shah Alam), Khairulnizam Kassim (Politeknik Sultan Salahuddin Abdul Aziz Shah, Shah Alam), Salina Saidin (Nusatek Sdn Bhd), Keval Priapratama Prajadhiana (Postgraduate UiTM Shah Alam), Mohd Shahar Sulaiman (Postgraduate), Noridzwan Nordin (Postgraduate UiTM Shah Alam), Ahmad Ariri (CICI Universitas Mercu Buana, Jakarta) and Shahidan Muhammad (Assistant Engineer UiTM Shah Alam).

## Program Content:

TIME	DAY 1
Speaker	Dr. Yupiter HP Manurung/Dr. Martin Leitner
8:30am – 9:00am	REGISTRATION
9:00am – 9:30am	Introduction
9:30am – 11:00am	Basic principles of fatigue design
11:00am – 11:15am	TEA BREAK
11:15 – 13:00pm	Fatigue assessment concepts of welded joints (part 1)
13:00pm – 14:00pm	LUNCH
14:00pm – 15:30pm	Fatigue assessment concepts of welded joints (part 2)
15:30pm – 15:45pm	TEA BREAK
15:45pm – 17:00pm	Challenges in application of high-strength steel (HSS) on welded structures
17:00pm	End of Day 1

TIME	DAY 2
Speaker	Dr. Martin Leitner
8:30am – 9:00am	REGISTRATION
9:00 am – 11:00am	Techniques for fatigue life enhancement of welded HSS structures
11:00am – 11:15am	TEA BREAK
11:15 – 13:00pm	Application of High Frequency Mechanical Impact (HFMI) Treatment
13:00pm – 14:00pm	Local fatigue strength of HFMI treated joints by experimental and
14:00pm – 15:30pm	Local fatigue strength of HFMI treated joints by experimental and
15:30pm – 15:45pm	Local fatigue strength of HFMI treated joints by experimental and
15:45pm – 17:00pm	Local fatigue strength of HFMI treated joints by experimental and
17:00pm	End of Day 2

TIME	DAY 3
Speaker	Dr. Martin Leitner/Dr. Yupiter HP Manurung/ Dr. Mohamed Ackiel Mohamed/Dahia Andud/Azriq Zainul Abidin
8:30am – 9:00am	REGISTRATION
9:00 am – 11:00am	Overview of HFMI (Pneumatic Impact Treatment/PIT) for industrial application and methods for quality assurance
11:00am – 11:15am	TEA BREAK
11:15 – 13:00pm	Typical HSS samples and analysis of different fracture surfaces
13:00pm – 14:00pm	LUNCH
14:00pm – 15:30pm	AMTEX's current research on Life Extension Technique
15:30pm – 15:45pm	TEA BREAK
15:45pm – 17:00pm	Demonstration and Hands-on of HFMI (PIT)
17:00pm	End of Course

## Reply Form

O Yes, I want to participate on this workshop

Name:

.....

IEM/BEM/ImechE Membership Nr.:

.....

H/P:

.....

Office Address:

.....

.....

.....

.....

.....

~~~~~kindly fax the **bank transfer receipt** and **reply form**  
to +603 5543 5160 with attention to: DR YUPITER HP  
MANURUNG or send to  
amtex.fkm.uitm@gmail.com~~~~~