

**Women Engineers Section & Building Services Technical Division**  
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### **REGISTRATION FORM**

**1 DAY COURSE ON SUSTAINABLE DEVELOPMENT GOALS (SDG6)**  
**- CLEAN WATER AND SANITATION.**  
**WHAT WE CAN DO! (Closing Date: 21<sup>st</sup> June 2019 )**

No	Name	M'ship No.	Grade	Fee (RM)
SUB TOTAL				
TOTAL PAYABLE				

Enclosed herewith a crossed cheque No: \_\_\_\_\_ for the sum of RM \_\_\_\_\_ issued in favour of "**The Institution of Engineers, Malaysia**" and crossed "**Payee only**". I/We understand that the fee is not refundable if I/We withdraw after our application is accepted by the Organising Committee as stated in the **cancellation term**. If I/We fail to attend the seminar, the paid registration fee will not be refunded.

Contact Person: \_\_\_\_\_ Institution: \_\_\_\_\_

Name of Organization: \_\_\_\_\_

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

Telephone No.: \_\_\_\_\_ (O) \_\_\_\_\_ (Fax)

\_\_\_\_\_ (H) \_\_\_\_\_ (HP)

Email: \_\_\_\_\_

Signature & Stamp

Date

Photocopies are acceptable

#### **CANCELLATION POLICY**

IEM reserves the right to postpone, reschedule, allocate or cancel the course. Full refund if cancellation is received in writing more than 7 days before start date of the event. No cancellation will be accepted prior to the date of the event. However, replacement or substitute may be made at any time with prior notification and substitute will be charged according to membership status.

**OPEN TO ALL**



JOINTLY ORGANISED BY  
 WOMEN ENGINEERS SECTION, IEM AND BUILDING SERVICES TECHNICAL DIVISION

**1 DAY COURSE ON SUSTAINABLE DEVELOPMENT GOALS (SDG6)**  
**- CLEAN WATER AND SANITATION.**  
**WHAT WE CAN DO!**

**25<sup>th</sup> JUNE 2019 (TUESDAY)**

Venue: Auditorium Tan Sri Pof Chin Fung Kee, 3<sup>rd</sup> Floor, Wisma IEM

Time: 9.00 am – 3.30 pm

Speakers: Mr. Gary Lim, Ms. Rachel Koh & TPr. Lee Lih Shyan

**BEM Approved CPD/ PDP hours: 7**

**Ref. No.: IEM19/HQ/218/C**

#### **REGISTRATION FEES**

	ONLINE	NORMAL
IEM Student Member	RM 100.00	RM 150.00
IEM Graduate Member	RM 250.00	RM 300.00
<b>IEM Corporate Member</b>	RM 400.00	RM 450.00
Non-IEM Member	RM 800.00	RM 900.00
<b>SST shall be at 6% with effect from 1 March 2019</b>		

#### **IMPORTANT NOTES**

- For **ONLINE REGISTRATION**, payment **MUST BE MADE VIA ONLINE PAYMENT [via RHB Now and Maybank2u - Personal Saving & Personal Current; Any Credit Card - Visa/Master]**. If payment is not received within the stipulated time, the registration fee will automatically be reverted to the normal fee.
  - Payment via **CASH/CHEQUE/BANK-IN TRANSMISSION/BANK DRAFT/MONEY ORDER/ POSTAL ORDER/LOU/LOG/WALK-IN** will be considered as **NORMAL REGISTRATION**
  - FULL PAYMENT** must be settled before commencement of the event, 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. IEM reserve the right to reject any LOU/LOG not in accordance with these instructions.
- The Organising Committee reserves the right to alter or change the programme due to unforeseen circumstances.

SYNOPSIS

Malaysia is a signatory to the UN Summit in New York on the 17 Sustainable Development Goals (SDG) among the 17 SDG is SDG 6 Clean Water and Sanitation. The SDG initiative started in 2016 and would end in 2030.

Our Treated water is being used in the sanitation system to flush toilet and this can be viewed as a CONFLICT because after treating the raw water, it gets flushed into the toilet. The current practice of using TREATED water to flush toilet is NOT sustainable. An average person would consume about 2.5 liters of Treated water a day whilst at the same time would flush 18 liters down the toilet; this ratio clearly shows it is NOT sustainable.

Rainwater Harvesting System (RWHS) has been made mandatory in the UBBL 2012 with the objective of REDUCING the use of treated water for toilet flushing. There are guidelines to design RWHS but the various systems proposed are NON sustainable because it is difficult to service and to have “clear” water for toilet flushing. The major weakness is the buildup of sludge and without facilities to remove the sludge the system becomes inoperable. The use of water pump with various controls would create nightmare for the layman when the system malfunction since all moving equipment will eventually fail and requires maintenance or repair.

RWHS can be a very simplified system yet reliable if designed purely on gravity feed with sedimentation tanks to allow sludge to settle which is to be drained to the garden regularly. The use of check valve on the backup treated water tank provides a constant standby of water for the toilet flushing at all times. With ample of rainwater, flushing of urinal and floor trap would eliminate the odor in toilets. This system is very cost effective but would require narrow veranda to support these tanks at designated external walls. This concept can also be extended to On Site Detention (OSD) and would become a 1 in 1 installation.

In 1999, the Ministry of Housing and Local Government has produced a guideline on Installing a Rainwater Collection and Utilization System. In support of the Government's interest in rainwater harvesting, NAEHM through collaboration with other government agencies such as Department of Irrigation and Drainage (DID), Department of Local Government, Universiti Teknologi Malaysia (UTM), Universiti Sains Malaysia (USM) and Universiti Malaya (UM) is currently pursuing R&D on rainwater harvesting focusing on hydrologic and hydraulic design, system design and performance, installation and operational costs and water quality aspects. (NAHRIM Website).

Is SDG 6 relevant to urban dwellers, for example residents of Petaling Jaya? Do they have no experience on shortage of clean water supply, drought or natural disaster? What has MBPJ done in rain water harvesting for PJ sustainability? Does public play an important role in achieving SDG 6 particularly on flooding, water conservation and waste water pollution? The presenter will share with participants, the above reference to the experience of Petaling Jaya City Council (MBPJ).

COURSE OUTLINE:

The course is for sector professionals, civil engineers, architects, environmentalists, urban planners, policy-makers and development practitioners who have an interest in sustainable development goal

Benefits

At the end of this course you should:

- Gain an understanding of Sustainable Development Goal SGD6
- Understand the benefits of applying rainwater harvesting
- Know how to meet Authorities' requirements according to Development Order
- Further understanding on how to contribute successfully to achieve SDG 6

SPEAKER'S BIODATA

**Ir. Gary Lim** is a committee member of the BSTD of the Institution of Engineers, Malaysia. He has a degree in Mechanical Engineering from the University of Canterbury, He is a Professional Engineer registered with the Board of Engineers, Malaysia and a Fellow of the Institution of Engineers, Malaysia. Currently, he conducts courses regularly on the concepts and design in the area of Fire Engineering, Plumbing and Sanitary systems at IEM.

SPEAKER'S BIODATA (CONT'D)

**Ms Rachel Koh** -AMW is a creative leader and is one of the pioneers' in promoting and selling Rainwater Harvesting System in Malaysia since 2009. Besides being a Green conscious individual, she is also the owner of a construction company. Her green tech company also offers the latest technology in Rainwater Harvesting System, storm water management and water filtration system. She actively promoting and educating the importance of Green Building Index and rainwater harvesting to the local councils, general public's and conscious consumers and given talk to DBKL, IEM and JPS on these topics before. At present, she is the Board Member of Malaysian Green Building Council.

**TPr. Lee Lih Shyan**, a registered town planner Board Member, Malaysian Board of Town Planners, currently is the Director of Solid Waste Management and Public Cleansing Department, Petaling Jaya City Council. The department is entrusted to overseeing and managing municipal solid waste and cleanliness in public area. At the same time, he is tasked to be the secretariat of the Petaling Jaya Low Carbon Green City Task Force. He was formerly the Local Agenda 21 Officer of Petaling Jaya City since the program was introduced to Petaling Jaya in year 1997 until April 2000 and then after as the Head of One Stop Secretariat (OSC) prior to his present posting in the beginning of 2015. He earned a Bachelor of Urban and Regional Planning Degree from the University of Technology Malaysia in year 1989 and a Master of Science in Sustainable Development (Business Strategy and Environmental Management) Degree from the University of Bradford, United Kingdom in year 2003

TENTATIVE PROGRAMME	
08:00 - 09:00	Course Registration
09:00 - 10:30	<b>SDG6: Clean Water and Sanitation - The NON Sustainable ways - Ir.Gary Lim</b> <ul style="list-style-type: none"><li>• To find more raw water sources, damage to environment</li><li>• To change the users' habit on "abuses" takes a long time</li><li>• Toilet and urinal flushing, at times insufficient due to cost element</li></ul>
15 min	Tea Break
10:45 - 13:00	<b>Use of Gravity feed Rainwater Harvest System (RWHS) – Ir. Gary Lim</b> <ul style="list-style-type: none"><li>• Design concept of RWHS and OSD, combination for effectiveness</li><li>• Sustainable and maintainable RWHS</li><li>• Flushing of water seal of sanitary fittings remove the odor in toilet</li></ul>
1 hour	Lunch Break
14:00 - 15:00	<b>DBKL's Rainwater Harvesting System and Submission for OS – Ms Rachel Koh</b> <ul style="list-style-type: none"><li>• Introduction to Rainwater Harvesting</li><li>• Submission Procedure</li></ul>
15.00 - 16.00	<b>Majlis Bandaraya Petaling Jaya (MBPJ) - TPr. Lee Lih Shyan</b> <ul style="list-style-type: none"><li>• Rainwater Harvesting for Petaling Jaya sustainability</li><li>• Achieving SDG6 particularly on flooding, water conservation and waste water pollution</li></ul>
16.00 - 17:00	<b>Dialogue Session: Sustainable Development Goals Initiative</b> Moderator : Ir Yap Wai Leng Panelist : Ir Elias Saidin Panelist : Ir Gary Lim Panelist : Ms Rachel Koh-AMW Panelist: TPr. Lee Lih Shyan
17:00 - 17:30	Feedback / Questionnaires Q&A