

# THE INSTITUTION OF ENGINEERS, MALAYSIA

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## SEWAGE TREATMENT INNOVATION IMPROVEMENT IN EXCESS SLUDGE REDUCTION

(Organized by the Water Resources Technical Division, IEM) BEM Approved CPD/PDP Hours: 2 Ref No: IEM16/HQ/316/T

Date : 1<sup>st</sup> September 2016 (Thursday)

Time : 5.30pm to 7.30pm (*Refreshment will be served in 2<sup>nd</sup> Floor*)

Venue : C&S & TUS Lecture Hall, 2<sup>nd</sup> Floor, Wisma IEM PJ

Speaker : Ms. Stephanie Sim

## <u>SYNOPSIS</u>

Sewage sludge is a byproduct of domestic wastewater treatment industry and its properties depends on the quality of sewage and type of treatment processes. The high humidity and special composition of sludge make it rather difficult for dehyration and utilization. With the development of environmental pollution treatment technology, different methods are adopted to dispose sludge, i.e. recycling in agriculture, landfilling, dumping into sea and incineration. Nevertheless, these processes have the problems of high cost, large energe consumption, complicated operation and mantenance, secondary pollution. Hence, for environment sustainability, another leap in transformation of sludge disposal is required like minimizing the excess sludge amount to a remarkable level to reduce all the further side effects of excess sludge treatment.

SPRAS process technology (based on High concentration activated sludge method) is a new process improved from traditional anoxicaerobic sewage treatment process. Typical characteristic of this technology is that activited sludge in aeration tank is in a special balance of growth and decline under the condition of high concentration (7000-9000mg/L) which could decrease 60~70% of excess sludge.

Other benefits of the SPRAS process includes reducing the footprint of traditional STP because of higher treatment efficiency to save our precious land reserve in urban area.

### **BIODATA OF SPEAKER**

Ms. Stephanie Sim earned her Bachelor's degree in Civil Engineering from Kolej Universiti Teknologi Tun Hussein Onn in 2002. She pursued her post graduate study in Engineering (Civil-Environmental Management) from Universiti Teknologi Malaysia in 2005. She has over 12 years' experience in the sewerage sector established from engagement with Indah Water Konsortium Sdn. Bhd. and Suruhanjaya Perkhidmatan Air Negara. Her involvement was at large in the development of standards/policies and guidelines for the industry, quality management of sewerage assets, certifying sewerage works and regulating sewerage services industry.

#### ANNOUNCEMENTS TO NOTE:

- Preferential admission to talk shall be accorded to IEM members (pre-registration and online registration are NOT required). Telephone and/or fax reservation will NOT be entertained.
- **Non-members** may also attend the talk but will need to pay a registration fee of **RM50** and an administrative fee of **RM15**. GST is inclusive.
- For members of affiliated organisations, there will be no registration fee payable. However, they are requested to produce their membership card as proof of membership. For the list of affiliated organisations, please refer to IEM website at www.myiem.org.my under International/MoU.
- Limited seats are available on a "first come first served" basis (maximum 100 participants).
- IEM members are required to produce membership cards for confirmation of attendance (CPD purpose).
- Latecomers will not be allowed to enter if the lecture hall is full nor be entitled to CPD.
- *IEM members who fail to produce their membership cards will be charged a fee of <u>RM25.00</u>. <i>GST is inclusive.*

#### ADMINISTRATIVE FEE

- Kindly be informed that an administrative fee of <u>RM15</u> is payable for talks organized by IEM. GST is inclusive.
- The fee would be used to cover overhead costs, building maintenance expenses as well as contribute to Wisma IEM Building Fund.
- All contributions will be deeply appreciated by IEM.
- Student Members are however exempted.

### CPD HOURS CONFIRMATION

Name: .....

Membership No: .....

Signature: