



The Institution of Engineers, Malaysia

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TALK ON

REMOTE MONITORING AND CONTROL APPLICATION THROUGH THE INTERNET OF THINGS (IoT) FOR WASTEWATER TREATMENT SYSTEM

Organized by Project Management Technical Division, IEM
BEM Approved CPD/PDP Hours: 2 Ref No: IEM16/HQ/294/T

Date : 23 July 2016 (Saturday)
Time : 9.00am – 11.00am (Refreshments will be served at 8.30am)
Venue : TUS and C&S Lecture Room, Second Floor, 2nd Floor, Wisma IEM, PJ
Speakers: Ir. Dr. Nor Azhar bin Mohd Arif

SYNOPSIS

This is a technology platform project for Internet of Things (IoT) with innovation for smart monitoring of sewerage system. Through this platform, the local authorities and the operators will be able to better profile and monitor the characteristic of the organic matters at different treatment stage. The monitoring can be performed remotely and on real-time basis using existing handheld devices (e.g. smart phone or other computing devices). This empowers the local authorities with insights to monitor efficient waste management and promote efficient clean water management.

The local authorities and the relevant agencies/companies are responsible in managing and maintaining the sewerage system to ensure treated water is released back to the environment. In running its operations, the stakeholders need to know the status and events within its treatment system. The solution consists of the following components:

- Seamless IOT infrastructure for data collection from sensors to enable continuous gathering, maintenance, storage and dissemination of the data.
- Integrated information management application to present useful data for remote monitoring of water quality at different stages from raw waste water until discharge.

This will increase the stakeholders' knowledge of the events and happenings within the sewerage treatment system. It enables remote monitoring of the water quality using handheld devices as well as using desktop computing devices.

Customized management application for smart water monitoring system is developed to allow monitoring of important wastewater parameters. The technology platform will allow end user and local authority to view the water treatment system condition/status through interactive and user friendly application interface. Further, the collected data can also be extracted, transformed and loaded into a database for data analytics. It will enable the stakeholders of the water management industry to have an analytical view of the data hence providing insights on the water management processes and quality within the area. These insights will be used by the stakeholders to further improve and increase the waste water management standard in Malaysia.

BIODATA OF SPEAKERS

Ir. Dr. Nor Azhar bin Mohd Arif is currently serving the Project Management Technical Division in IEM as one of the committee members. He obtained his Doctor of Philosophy (Electronic Engineering) and Master of Engineering Science (Telecommunication) degrees both from Multimedia University. Prior to his postgraduate studies, he graduated from King's College London with Bachelor of Engineering (First Class with Honours) in Radio and Communication in 1998. He is a Professional Engineer with Practicing Certificate registered with the Board of Engineers Malaysia (BEM) and a Senior Member of the Institute of Electrical and Electronics Engineers (IEEE). He has been extensively active in the electronic and telecommunication industries for the last 18 years. He served IX Telecom Sdn Bhd as the Technology Advisor and has served Ronser Bio-Tech Berhad as the Executive Deputy Chairman. His has also worked with the Faculty of Engineering at Multimedia University as a Senior Lecturer and attached as a Researcher with the Laser Ultrasonic Research Group in the Department of Electrical and Electronic at the University of Nottingham United Kingdom. He has published numerous articles within his area of expertise in the form of journal and conference papers, books and patents. He attended Asia Pacific Telecommunity (APT) ICT Development Forum (ADF) in four different occasions (2005, 2008, 2011 and 2015) as invited speaker through APT Fellowship awards.

Ir. Dr. Ahmad Anuar B. Othman
Chairman
Project Management Technical Division

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- 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.
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- Limited seats are available on a "first come first served" basis (maximum 100 participants).
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- 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 RM25.00. GST is inclusive.**

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- All contributions will be deeply appreciated by IEM.
- Student Members are however exempted.

CPD HOURS CONFIRMATION

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