SMART WATER MANAGEMENT USING IOT AND AI/MACHINE LEARNING: CASE STUDIES AND OVERCOMING CHALLENGES

Objective:

To inform and engage the water sector industry on the emerging IOT technologies and how it can be applied to enhance efficiency, safety and resilience of the operations. The course will highlight actual use-cases deployed in water sector in Singapore, so the participants can better appreciate the applications of the Technology. Through the hands-on engagement during the course, the participants will be able to understand the end-to-end IOT system architecture such as sensors, gateways, wireless communications, Cloud, Analytics, and Custom Apps. The course will also inform the participants on the challenges of existing technologies like different wireless protocols, interoperability, technology obsolescence, cyber security etc., and how to overcome these challenges. In the end, it will also give some guidance on how to embark on IOT at their work and how to bring change management so that organisations can reap benefits from IOT.

Learning Outcomes:

1. Understand basics of IOT, Cloud, AI/ Machine Learning and associated terminologies.
2. To be informed on existing and emerging technologies in IOT, challenges and how to overcome those challenges.
3. Hands-on learning on setting up end-to-end IOT system, from setting-up sensors, device/ gateway for communication, access and visualize data on the cloud software.
4. Learn about basics of AI / Machine learning and how it can help generate actionable insights or alerts for smart operations.
5. How to start the digital transformation journey at work through IOT and enabling change Management so that the enterprise can reap benefits of IOT.

Course Outline:

- Introduction to IOT and Terminologies
- LPWAN Technologies for Industrial IOT
- Advantages and limitations of different technologies
- Different Applications / Case Studies of IOT for water applications
- Using IOT software for device management, data visualization setting up rules for generating alerts and notifications
- Introduction to Data Analytics, AI/ Machine Learning
- Practical Use Cases using Data Analytics / AI / Machine Learning using Enterprise IOT Cloud Software
- Challenges with existing IOT Technologies – different wireless protocols, standards, hardware, cyber security, interoperability, standards etc., and how to overcome the challenges
- How to start with Digital Transformation Journey through IOT at work and how to enable change management

Programme

Date	1st-2nd Jul 2021
Duration	2 days (PM session)
Time	1.00pm – 5.30pm
Venue	Virtual Training

Course Fee (Excluding GST)

Course Fee	SWA Member	Non-Member
Full Fee	SGD 250.00	SGD 350.00

Discount code for SWA members: **SIWW21SWATRG**