



CONNECTING THE UNCONNECTED – A JOURNEY TOWARDS HUMANISING TECHNOLOGIES AND REMOTE AUTONOMOUS OPERATIONS

Many plant industries are confronted with problems such as complicated raw materials, a retiring workforce, decrease in skilled workers due to globalized supply chains and adoption of new technologies. In order to achieve to the next level profitability in operations, it requires optimizing local and overall sites while addressing these challenges.

There has been an increase in the use of immersive technology in training, remote maintenance, AI (Artificial Intelligence), machine learning and robotics for plant operations in recent years.

In this 3 hours session, participants will learn about the following:

- a) 'Integration Technologies - Fully integration of the plant floor horizontally, bringing in critical process information from industrial equipment and sensors simultaneously. This information is seamlessly transported vertically to upper-layer systems for visualization and analytics purposes. Also a deep dive into how automated system in managed services help to eradicate cyber-security threats and releasing resources for value added contribution to the plant operation and maintenance.
- b) Immersive Learning Use Cases – It has become increasingly popular for industrial context. It is not only transforming the ways which technical staff are being trained, it is also revolutionising how repair and maintenance of complex machinery are being carried out.
- c) 5G Applications - A journey through the Industrial application of 5G, a vision which will drastically change the outlook of Industrial Automation to Industrial Autonomy. Critical areas which 4G unable to achieve can now be enabled by 5G.

SPEAKER / TOPIC



Mr. Tomoo Uchida
*Autonomous Plant
with Managed
Services*



Mr. Sujit John



Mr. Hariprasad Kongorpalli

Connecting the unconnected' and 5G



Dr. Zhang Hua



Mr. Ivan Choo
*Humanising
Technology in
Immersive
Learning*



Mr. Matt Teng
Robotics + 5G

Date: 13 Jan 2022, Thursday

Time: 3pm to 6pm

Fees \$20 (IES Members) / \$40 (Non Members)

(Fees exclude 7% GST)

CPD Program: PDUs for PEs and CEngs)

(All To Be Confirmed)



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Organised by CAPE Technical Committee

ABOUT THE SYNOPSIS

INTEGRATION TECHNOLOGIES

Fully integration of the plant floor horizontally, bringing in critical process information from industrial equipment and sensors simultaneously. This information is seamlessly transported vertically to upper-layer systems for visualization and analytics purposes. Also a deep dive into how automated system in managed services help to eradicated cyber-security threats and releasing resources for value added contribution to the plant operation and maintenance.

CONNECTING THE UNCONNECTED' AND 5G

COLLABORATIVE INFORMATION SERVER

Collaborative Information Server is a DX enabled next generation integration system.

Collaboration drives efficient operations and increased productivity throughout plant sites—between on-area operators and management, specialists in each field located far from sites and each business division.

Sushi Sensor is a wireless solution for industrial IoT, including sensors such as vibration, temperature, and pressure to monitor equipment conditions continuously. By introducing Sushi Sensor, it is possible to monitor the equipment deployed in a wide plant from a remote location efficiently.

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5G APPLICATIONS

A journey through the Industrial application of 5G, a vision which will drastically change the outlook of Industrial Automation to Industrial Autonomy. Critical areas which 4G unable to achieve can now be enabled by 5G.

However, such specialists cannot always be present at remote areas and sites, so a higher-level view is important to remotely operate each site and plant, seamlessly.

The CI Server facilitates the connection between geographically distributed plants & processes, while providing flexible operations from a central location. This gives the on-site and management staff, a clear view of all aspects of production in real time.

HUMANISING TECHNOLOGY IN IMMERSIVE LEARNING

It has become increasingly popular for industrial context. It is not only transforming the ways which technical staff are being trained, it is also revolutionising how repair and maintenance of complex machinery are being carried out.

ROBOTICS + 5G

Rapid advances in automation technologies have the potential to improve work conditions and also overcoming workplace hazards in manufacturing and production workplaces. This segment gives an actual visual understanding on robotics operations & maintenance.

ABOUT THE SPEAKERS

INTEGRATION TECHNOLOGIES

Mr Tomoo Uchida is currently the Head of the Lifecycle Service Business Division, leading lifecycle business after project delivery in the Asia Pacific region, supervising the functions under lifecycle service business and has 25 years of experience in Industrial Automation.

He started his career as a service coordinator based in Tokyo and then moved on to Global HQ dealing with overseas affiliates, providing service support after project delivery, then spent several years in service sales at our service branch office in Japan, which provides service solutions to install base customers.

After returning to Global HQ, he led efforts in establishing a service structure in the Middle East, then continued with service accounts as part of PMO for global major accounts in Oil & Gas, Chemicals etc. and established and maintained a framework agreement for service solutions for application to global operation sites.

CONNECTING THE UNCONNECTED' AND 5G

Mr Sujit John heads the System consultancy team in Singapore, with more than 17 years of relevant Industry experience. Having joined Yokogawa in 2004, he has an extensive background in working on Global Automation projects, with various customers and industries. He uses this vast experience in providing value added technical solutions that are in line with customer requirements and the latest available technologies.

Mr Kongorpalli Hariprasad has experience in regional marketing, business development, product management, techno-commercial operations & technical support for mission critical instrumentation & telecommunication projects at multiple levels for various industries. Currently he is responsible for Wireless solutions & DTSX business in ASEAN region.

Dr Zhang Hua graduated from Nanyang Technological University (NTU) with Ph.D. in communication systems. He is also is a Singapore Certificated Energy Manager (SCEM).

He has strong background in wireless communications and industrial IoT from his experience in Motorola, Huawei, Emerson, and Yokogawa. With over 15 years' R&D in communications, IoT and AI, he is driving the digital transformation solution in Yokogawa, as senior manager of DX business development. His portfolio includes asset modelling (pump, boiler, compressor, chiller, etc), AI analysis, industrial IoT, process optimization, predictive maintenance, industrial 5G applications to help customers to build a centralized cloud-based platform and enhance process performance, productivity, and energy savings.

HUMANISING TECHNOLOGY IN IMMERSIVE LEARNING

Mr Ivan Choo has more than 15 years of experience in industrial automation, handling Distributed Control System, Asset Management Software, Safety Control System and Secure Remote Maintenance. He has been leading business development in Industrial 4.0 projects and is a strong advocate for innovative technology in the APAC region.

Mr Choo is specialize in Virtualization, IOT, Virtual Reality, Augmented Reality, Mixed Reality. As a Certified SIRI Assessor; he aims to empower higher productivity and profitability in enterprises through transformation strategies, solution proposals, project developments and management..

ROBOTICS + 5G

Mr Matt Teng is the Head of Digital Industrial Solutions and General Manager under the Digital Enterprise Solution (DES) Business Centre at Yokogawa Engineering Asia headquartered in Singapore.

He has a MSC ENG degree from National University of Singapore (NUS). Prior to joining Yokogawa in 2018, he held various leadership positions in Technology companies in the areas of Process Simulation, Supply Chain, Manufacturing Execution and Technology Licensing. In Yokogawa, he overseas Digital Transformation initiatives and solution development aligning to Yokogawa IA2A vision.