

# **Factory Energy management system (FEMS)**

## **for Smart Monodzukuri**

### **- How to achieve Sustainable Development Goals (SDGs)-**

**Monday 18<sup>th</sup> November 2019      Time 09:00 – 16:00**

**At the Hilton Sukhumvit Bangkok**

Organized by the Technology Promotion Association (TPA), Thailand

Coordinated with Thai Industrial Standards Institute (TISI), Ministry of Industry

by Collaborated with

Japan Electric Measuring Instruments Manufactures' Association (JEMIMA)

Japan Electronics and Information Technology Industries Association (JEITA)

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In order to prevent global warming and achieve SDGs, international standard organizations such as IEC and ISO have been working in the area of Factory Energy Management System (FEMS) and energy efficiency standardization for future manufacturing industries under smart grid society. In the future "Smart-Monodzukuri", energy efficiency factor shall be included in the standard manufacturing execution model with achieving productivity and product quality goals simultaneously through "Kaizen" activities.

This seminar would contribute the peoples in cooperate management, factory management, production engineering and energy management who would be involved in future "Monodzukuri" lifecycle.



#### **Digital Industrial Automation Control Systems Towards Smart Society**

Professor David Banjerdpongchai, PhD.

Department of Electrical Engineering

Faculty of Engineering, Chulalongkorn University

Professor David Banjerdpongchai is a professor of the department of Electrical Engineering, Faculty of Engineering, Chulalongkorn University. *Currently, he is a head of Intelligent Control Automation of Process Systems Research Unit, and deputy director of International School of Engineering. He is a chair of IEC TC65 Thailand National Committee.*



#### **Factory Energy Management System (FEMS) in Smart Society**

Professor Yoshiharu Amano, PhD.

Department of Applied Mechanics and

Aerospace Engineering, Waseda University

Professor Yoshiharu Amano is a professor of the department of applied mechanics and aerospace engineering, Waseda University. *He is an expert for optimization of energy management system domain and has been studied on energy management systems connecting smart grid.*

**Technology Promotion Association (Thailand-Japan)**

**For more Information please contact 02-717-3000 # 634 Patthada , Ungwara # 751**

**E-mail : patthada@tpa.or.th , ungwara@tpa.or.th,      www.tpif.or.th**

# FEMS Seminar

## - Factory Energy Management System (FEMS) for Smart Monodzukuri - On 18 November 2019

08:30 - 09:00	Registration	
09:00 - 09:05	Welcome and Safety Moment	
09:05 - 09:25	Keynote: Digital Industrial Automation Control Systems Towards Smart Society	Prof. David Banjerdpongchai, Chulalongkorn University
09:25 - 10:00	Factory Energy Management System in Smart Society	Prof. Yoshiharu Amano, Waseda University
10:00 - 10:20	Overview of Int'l Standards for energy management	Mr. Hisashi Sasajima, JEMIMA
10:20 - 10:40	<Tea Break>	
10:40 - 11:20	Introduction of EnMS for cooperating with multiple organizations (ISO 50009)	Mr. Shigeki Sakamoto, Institute of Applied Energy
11:20 - 12:00	Introduction of a measuring method of organizational EnMS score • EnMS for enterprise management with using PDCA cycle (ISO 50001) • A measuring method of energy performance in the EnMS (ISO 50006) • Proposal for EnMS management level scoring method	Mr. Tomoyuki Ikeyama, Yokogawa Electric Corporation
12:00 - 13:00	<Lunch>	
13:00 - 13:50	Smart grid society including manufacturing factory • Use cases of factories to correspond demand response (IEC TS 62872-1) • FEMS for grasping and predicting energy consumption	Mr. Masahiro Kazumi, Yokogawa Electric Corporation
13:50 - 14:10	<Tea Break>	
14:10 - 15:40	Harmonized control for multiple facilities in factory • Introduction of Harmonized control for multiple facilities- "Renkei Control" • Examples of Harmonized control	Mr. Yutaka Wakasa, JEITA Mr. Tatsuro Uno, Yokogawa Solution Service Corporation
15:40 - 16:00	Q&A	

วิทยากรต่างประเทศ : มีสรุปคำบรรยายเป็นภาษาไทย

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