

Industrial Track related to Smart Manufacturing in SICE 2021

<https://www.sice.jp/siceac/sice2021/>

Date: September 8– 10, 2021 (ZOOM LIVE)

Venue: ONLINE

(1) Plenary Talk (Sponsored by JEMIMA):

Importance of Human Positive Contribution to Safety-Insight from Safety-II Concept-

Speaker: Professor Makoto Takahashi (Tohoku University)

<https://www.sice.jp/siceac/sice2021/14.html>

Abstract:

The advancement of leading technology such as IoT, DX, and AI etc. are expected to enhance the level of efficiency and safety in various industrial areas. Although the combination of big data and advanced information technology may have significant potential, it should be also noted that the application of such information technology may not work so well when they are applied to the socio-technical systems, where human and system interact each other to achieve system goals under situations with significant uncertainties and unstated restrictions. The concept of Safety-II has been proposed to enhance the safety of socio-technical systems, in which the importance of human positive contributions to safety is emphasized.

In this talk, the concept of Safety-II will be presented followed by the concrete examples from Cyber Security, Nuclear Industry and 3.11 Disaster in Tohoku area.



Presentation Style: ZOOM LIVE FrP4PI

Date: Sep. 10, Fri.

Time: 10:45-11:45(JST) 9:45-10:45(SGT) 8:45-9:45(ICT) 3:45-4:45(CEST)

(2) SICE 2021 Special Panel Session:

[Session 1] International Symposium on Safety and Secure Control System for realizing Smart Manufacturing by SICE Technical Committee on Industrial Networks and System

Presentation Style: ZOOM LIVE WeC10

Date: Sep. 8, Wed.

Time: 16:00-17:30(JST) 15:00-16:30(SGT) 14:00-15:30(ICT) 9:00-10:30(CEST)

Chair:

- Akio Ito (Yokogawa Electric Corporation, Japan /FDT Group, Belgium /Industrial Open-Network Laboratory in Waseda University, Japan)

Moderator

- Hiroo Kanamaru (Mitsubishi Electric Corporation, Japan)

Panelist:

- Diew Koolpiruck (King Mongkuts' University of Technology Thonburi, Thailand)
- Hiroo Kanamaru (Mitsubishi Electric Corporation, Japan)
- Junya Fujita (Hitachi, Ltd. , Japan)
- Alexander Koehler (UL LLC, Germany)
- Tsutomu Yamada (Hitachi, Ltd. , Japan)
- Yoichi Takayanagi (Toshiba Infrastructure Systems & Solutions Corporation, Japan)

**[Session 2] Society5.0 - International Standardization in SICE
by SICE International Standardization Committee**

Presentation Style: ZOOM LIVE FrB09

Date: Sep. 10, Fri.

Time: 14:15-15:45(JST) 13:15-14:45(SGT) 12:15-13:45(ICT) 7:15-8:45(CEST)

Chair:

- Yoichi Takayanagi (Toshiba Infrastructure Systems & Solutions Corporation, Japan)
- Hiroo Kanamaru (Mitsubishi Electric Corporation, Japan)

Moderator

- Hiroo Kanamaru (Mitsubishi Electric Corporation, Japan)

Panelist:

- Tomoyuki Ikeyama (Yokogawa Electric Corporation, Japan)
- Toshi Hasegawa (Yokogawa Electric Corporation, Japan)
- Takenori Baba (Mitsubishi Electric Corporation, Japan)
- Tsutomu Yamada (Hitachi, Ltd., Japan)
- Yoichi Takayanagi (Toshiba Infrastructure Systems & Solutions Corporation, Japan)
- Tetsuo Kotoku (AIST, Japan)
- Hiroshi Arai (Azbil Corporation., Japan)

**(3) Organized Sessions: Innovation for New Value Creation in Manufacturing
by SICE Technical Committee on Industrial Networks and System
Industrial Networks System / Security & Safety**

Presentation Style: ZOOM LIVE FrC02

Date: Sep. 10, Fri.

Time: 16:00-17:45(JST) 15:00-16:45(SGT) 14:00-15:45(ICT) 9:00-10:45(CEST)

Chair:

- Akio Ito (Yokogawa Electric Corporation, Japan /FDT Group, Belgium
/Industrial Open-Network Laboratory in Waseda University, Japan)
- Yoichi Takayanagi (Toshiba Infrastructure Systems & Solutions Corporation, Japan)

#1 Digital Transformation through IT/OT Convergence in Manufacturing

Author: Diew Koolpiruck, Teema Leangrun
(King Mongkut's University of Technology Thonburi, Thailand)

#2 Device Data Utilization Use Case Analysis for FDT Technology in Industrial Control System

Author: Akio Ito^{1,3}, Jason Chan Sin Wai², Tetsuo Takeuchi^{1,3}, Yoshiharu Amano³
(1: Yokogawa Electric Corporation 2: Yokogawa Engineering Asia
3: Industrial Open-Network Laboratory)

#3 Measurement Error Evaluation of the Non-Contact Inner Diameter Measuring Device Using Light Sectioning Method

Author: Kazunori Yamazaki, Toshiyasu Mitsunari, Itta Nozawa
(Sumitomo Heavy Industries, Ltd.)

#4 Prioritisation Algorithm of Security Measures for Industrial Control Systems Based on Multi-Layered Defence

Author: Daisuke Tsuji¹, Junya Fujita¹, Sumito Yazawa², Atsuro Sakamoto²
(1: Hitachi, Ltd 2: Hitachi Solutions, Ltd.)

#5 The Extended Risk Assessment Form for IT/OT Convergence in IACS Security

Author: Hiroo Kanamaru (Mitsubishi Electric Corporation)

#6 Wristband Type Sensor for On-Site Management of Workers' Safety

Author: Yuichiro Yamaguchi, Shinichiro Sakata, Yoichi Takayanagi
(Toshiba Infrastructure Systems & Solutions Corporation)

#7 A Basic Consideration on Safety of the Programs with Ladder Diagram

Author: Iko Miyazawa (Kanagawa Institute of Industrial Science and Technology)

Japan Electric Measuring Instruments Manufacturers' Association

- ◆ For over 70 years since its establishment in 1948, the Japan Electric Measuring Instruments Manufacturers' Association (JEMIMA) has been making wide-ranging contributions to the development of society and industry as an incorporated organization that handles electrical measuring instruments that are indispensable foundational tools for R&D, design, and manufacturing in many areas of industry.



[Seven Activities]

Activity to support member companies for strengthening their global competitiveness

- Surveys of regulatory trends both in Japan and abroad
- Pursuit of international standardization activities
- Compilation of statistical reports

Activity to develop new technology and create business opportunities

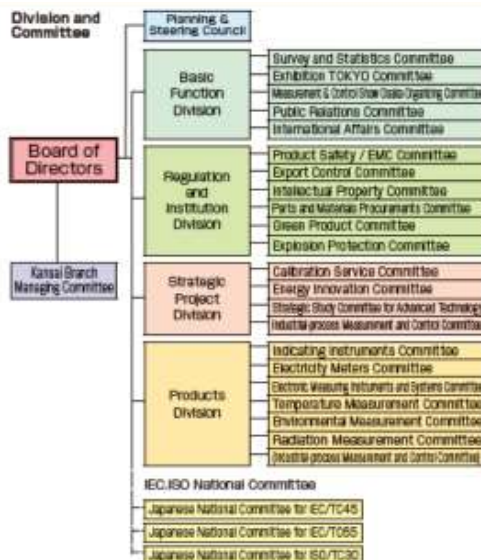
- Identification of new technology development themes

Activity to improve the presence of JEMIMA

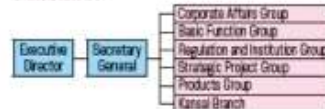
- Management of public relations
- Organization of exhibitions
- Organization of seminars

[Three Bases]

- Strengthen the JEMIMA organization
- Activate JEMIMA committees by each division guidance
- Expand membership by strengthening member support



Secretariat



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- Traffic guide**
- Tokyo Metro Hanzomon Line Suitengumae Station (Exit 6) 3-minute walk
 - Tokyo Metro Hibiya Line Ningyocho Station (Exit A2) 7-minute walk
 - Toei Asakusa Line Ningyocho Station (Exit A3) 10-minute walk
 - Toei Shinjuku Line Hamacho Station (Exit A2) 8-minute walk

