

## NSTDA – Osaka University Webinar 23 December 2021

### ORGANIZED BY

National Science and Technology Development Agency (NSTDA), Thailand  
Osaka University, Japan

### EVENT PURPOSE

1. To introduce research interest in Biotechnology, Welding Technology, and Information Science and Technology between NSTDA and Osaka University
2. To find mutual interest to establish research collaboration

### PROGRAM

#### Welcome and Introduction Session

(Thai time)

10:30 – 10:35

#### Welcome Remarks

By Prof. Prasit Palittapongarnpim, NSTDA Executive Vice President

10:35 - 10:40

#### Opening Remark

By Prof. Genta Kawahara, Osaka University Executive Vice President

10:40 - 10:55

#### Introduction to NSTDA

By Dr. Lily Eurwilaichitr, Vice President, NSTDA

10:55 - 11:10

#### Introduction to Osaka University

By Prof. Genta Kawahara, Osaka University Executive Vice President

11:10 – 11:25

#### Introduction on eAsia Joint Research Program (e-Asia JRP)

By Ms. Emi Kaneko, Director, Japan Science and Technology Agency (JST)

11:25 – 12:00

Break

#### Parallel Session

(Thai time)

12:00 – 14:00

#### Parallel Session

- **Biotechnology: Microbial System Design and Application**
- **Joining and Welding Technology**
- **Information Science and Technology: Digital City**

14:00 – 14.20

Discussion for Collaboration

14:20

End

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**Parallel Session Program:**

**Session 1: Biotechnology on Microbial System Design and Application**

(Thai time)

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|---------------|--|
| 12:00 – 12:20 | <b>Development of yeast expression system for heterologous protein production: molecular genetics and secretion mechanisms</b><br>By Dr. Niran Roongsawang, Principal Researcher, BIOTEC, NSTDA  |
| 12:20 - 12:40 | <b>Molecular breeding of oleaginous yeast <i>Rhodotorula toruloides</i> for lipid production</b><br>By Prof. Dr. Kazuhito Fujiyama, International Center for Biotechnology, Osaka University   |
| 12:40 - 13:00 | <b>Metagenomic Exploration of uncultured microbial bioresources for biotechnological application</b><br>By Dr. Verawat Champreda, Director, Biorefinery Technology and Bioproducts Research Group, BIOTEC, NSTDA   |
| 13:00 - 13:20 | <b>Development of a microbiota modification technique using antisense peptide nucleic acids</b><br>By Dr. OKANO Kenji, International Center for Biotechnology, Osaka University  |
| 13.20 – 13.40 | <b>Bioprocess engineering and metabolic flux redistribution toward microbial production of value-added chemicals</b><br>By Dr. Kanokarn Kocharin, Researcher, Biorefinery Technology and Bioproducts Research Group, BIOTEC, NSTDA   |
| 13:40 - 14:00 | <b>Comparative <sup>13</sup>C-metabolic flux analysis indicate elevation of ATP regeneration, carbon dioxide, and heat production in industrial <i>Saccharomyces cerevisiae</i> strains</b><br>By Prof. Dr. Fumio Matsuda, Graduate School of Information Science and Technology, Osaka University |
| 14:20 - 14:40 | <b>AMR in Southeast Asia</b><br>By Dr. Yukihiro Akeda, Department of Bacteriology I, National Institute of Infectious Diseases, Tokyo, Japan/Research Institute for Microbial Diseases, Osaka University   |
| 14:40 - 15:00 | Discussion for collaboration   |
| 15:00         | End  |

**Session 2: Joining and Welding Technology**

(Thai time)

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|---------------|--|
| 12:00 – 12:20 | <b>Linear Friction Welding of Various Metals with 100% Joint Efficiency</b><br>By Prof. Dr. Hidetoshi Fujii, JWRI, Osaka University                |
| 12:20 - 12:40 | <b>Dissimilar Materials Joining for Mobility Applications</b><br>By Dr. Sinthu Chanthapan, Researcher of RMT, NSTDA                                |
| 12:40 - 13:00 | <b>Development of Additively Manufacturing for Copper using High Brightness Blue Diode Laser</b><br>By Prof. Dr. Yuji Sato, JWRI, Osaka University |
| 13:00 - 13:20 | <b>Microstructure and hardness of novel 316L/TiN composite fabricated by SLM</b><br>By Dr. Dhriti Tanprayoon, Researcher of MTEC, NSTDA            |



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- 13:20 - 13:40      **Aluminum Honeycomb Panel for Electric Vehicle Battery Enclosure**  
By Dr. Sutee Olarnrithinun, Researcher of RMT, NSTDA
  
- 13:40 – 14:00      Discussion for Collaboration
  
- 14:00                      End
  
- Session 3: Information Science and Technology: Digital City**  
(Thai time)
  
- 12:00 – 12:20      **Real-time Forecasting of Big Time-series Data: Foundations and Challenges**  
By Prof. Yasushi Sakurai, Osaka University
  
- 12:20 - 12:40      **Big Data Research**  
By Dr. Marut Buranarach, Director of Data Science and Analytics Research Group (DSARG), NECTEC, NSTDA
  
- 12:40 - 13:00      **Human-Robot Interaction in Cyber-Physical System**  
By Assist. Prof. Photchara Ratsamee, Osaka University
  
- 13:00 – 13.20      **Introduction to Intelligent SCADA Research Team**  
By Dr. Nathavuth Kitbutrawat, Researcher of Intelligent SCADA Research Team (IST), NECTEC, NSTDA
  
- 13:20 - 13:40      **When Learning Techniques Meet Our Real-World Problems: Challenges and Solutions**  
By Dr. Hamada Rizk, Specially appointed Assistant Professor, Graduate School of Information Science and Technology, Osaka University,
  
- 13:40 - 14:00      Discussion for collaboration
  
- 14:00                      End

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**Registration:**  
<https://meeting-nstda.webex.com/meeting-nstda/j.php?RGID=rf9d20c85ca78c9478b099b8a4da681d4>