

The 3rd ERLEP Trans-disciplinary Forum 2019

Second Circular

Forum Theme

Contribution of engineering to Sustainable Development Goals (SDGs)

Date · Venue

Wednesday 16 – Friday 18 October 2019

Frontier Research in Applied Sciences Building, Faculty of Engineering, Hokkaido University, Japan

Background and Purpose

This forum has mainly been organized by alumni of Japanese and Australian young researchers who joined ERLEP (Emerging Research Leaders Exchange Program). ERLEP was launched by the three organizations, The Engineering Academy of Japan (EAJ), Japan Society for the Promotion of Science (JSPS) and Australian Academy of Technological Sciences and Engineering (ATSE, Present: Australian Academy of Technology and Engineering) based on an inter-governmental agreement between Japan and Australia in 2008 and continued for 8 years until 2016. Since the end of ERLEP in 2016, the format has been changed into a forum where ERLEP alumni exchanged their research work and performed trans-

disciplinary discussion to continue the established researchers' network. The 1st forum was held in Fukuoka in 2017 and the 2nd forum in Melbourne in 2018. The 3rd forum is jointly organized with Eight-University Engineering Association (8UEA) in Japan and Group of 8 (The Group of Eight, Australia's leading research-intensive universities) to continue and further expand this initiative. The purpose of the 3rd forum is to form a new sustainable organization with global leadership and social influence, to summarize a proposal for promoting global academic collaboration projects, and to continuously disseminate it to public sectors.

Outline

On day 1, participating researchers will provide a poster presentation to disseminate their research findings. Invited speeches regarding to gender issues in science and technology fields and a special lecture followed by panel discussion on engineering education will also be provided. On day 2, a special speech on research exchange between Australia and Japan and brainstorming sessions to discuss how engineering knowledge and technology can contribute to Sustainable Development Goals (SDGs) will be provided. On day 3, a cross-cultural exchange tour for mutual understanding of cultural and social diversity will be scheduled.

Trans-disciplinary topics

【The 1st Forum】

1. The role of informatics for human and society
2. Emerging materials and technologies for sustainable society
3. Japan/Australian student exchange program: Present and future

【The 3rd Forum】

1. Contribution of engineering to SDGs in energy and environment fields
2. Contribution of engineering to SDGs in new materials and resources fields
3. Contribution of engineering to SDGs in healthy engineering and wellbeing fields

Program

Day 1 : October 16th (Wednesday)

- 9:00 – 10:00 **【Registration, Morning Coffee/Tea】**
- 10:00 – 11:00 **【Opening】**
Opening remarks by EAJ, 8UEA, ATSE, Australian Embassy Japan
Introductory speech, Brief overviews of the 1st and 2nd forum and overview of 3rd forum
- 11:20 – 13:00 **【Poster Presentation】**
All participating researchers will provide a poster presentation.
- 14:00 – 15:00 **【Invited speeches】**
An invited speech on gender issues will be delivered by two speakers.
- 15:40 – 16:20 **【Keynote speeches】**
A keynote speech to deepen understanding issues to be discussed at brainstorming sessions will be delivered by two speakers.
At brainstorming sessions, considering the priority areas proposed by ERLEP and SDGs (Sustainable Development Goals) suggested by the United Nations, the following topics will be exclusively targeted and discussed.
 1. Contribution of engineering to SDGs in energy and environment fields
 2. Contribution of engineering to SDGs in new materials and resources fields
 3. Contribution of engineering to SDGs in healthy engineering and wellbeing fields
- 16:20 – 18:00 **【Special speech, Panel discussion】**
A special speech on engineering education will be delivered, followed by panel discussion with panelists for further discussion.

Day 2 : October 17th (Thursday)

- 9:30 – 10:00 **【Morning Coffee/Tea】**
- 10:00 – 10:15 **【Opening】**
Opening remarks by EAJ
Introductory speech, Outline of brainstorming session
- 10:45 – 11:45 **【Brainstorming session 1】**
“1. Contribution of engineering to SDGs in energy and environment fields” will be discussed.
- 13:00 – 14:00 **【Brainstorming session 2】**
“2. Contribution of engineering to SDGs in new materials and resources fields” will be discussed.
- 14:00 – 15:00 **【Brainstorming session 3】**
“3. Contribution of engineering to SDGs in healthy engineering and wellbeing fields” will be discussed.
- 16:30 – 17:30 **【Final presentation】**
Session chairs of each session will deliver final presentation.
- 17:30 – 18:00 **【Wrap up, Closing】**
The forum will be wrapped up and closed.
- 18:00 – 18:15 **【Introduction of Ainu history and culture】**
Ainu history and culture will be introduced by Hokkaido government.

Day 3 : October 18th (Friday)

- 9:00 – 15:00 **【Cultural excursion】**
Venue: Ainu Culture Promotion Center “Sapporo Pirka Kotan”
A cross-cultural exchange tour, interacting with history and culture of the indigenous Ainu people who have lived in Hokkaido, will be scheduled.

Invited Speeches

Day 1: Wednesday 16 October

“Current status of Japan’s gender equality in scientific fields”

Eiichi Yamaguchi, Kyoto University, Japan

“Gender issues for the advancement of science, technology and Innovation”

Yuko Harayama, Tohoku University, Japan

Keynote Speeches

Day 1: Wednesday 16 October

“Ageing society, wellbeing and engineering”

Toshiro Ohashi, Hokkaido University, Japan

“Education, ethics and engineering”

Jonathan Manton, University of Melbourne, Australia

Special Speech

Day 1: Wednesday 16 October

“Engineering education to embrace the challenges”

Xiao Lin Zhao, University of New South Wales, Australia

Day 2: Thursday 17 October

“Research collaboration between Australia and Japan”

Jennifer Marjorie Corbett, Australian National University, Australia/The University of Tokyo, Japan

Poster Presentation (For ERLEP, 8UEA and Go8 researchers)

There will be a poster presentation session in the morning of Wednesday 16 October. The size of display board is 900 mm (W) × 2000 mm (H). Please prepare your poster in A0 format (841 mm (W) × 1189 mm (H)) and send it in pdf format to the Executive Secretariat (ERLEP@eng.hokudai.ac.jp) by **Monday 7th October**.

Your poster will be affixed and removed by the conference office, and viewed through the duration of the forum.

***You are responsible to print and bring your poster to the Forum if you do not send it to the Secretariat by the deadline.**

Brainstorming for Trans-disciplinary research (For ERLEP, 8UEA and Go8 researchers)

There will be three brainstorming sessions, held one after the other, so all can participate. The focus of each of the three sessions is as follows.

1. Energy, Environment
2. New Materials, Resources
3. Health Engineering, Wellbeing

Each session will culminate in a written statement of our plan to move jointly towards tackling one or more SDGs. These three statements, one from each brainstorming session, will be included in the statement summarizing the outcomes of the forum. To make the most of the sessions, participating researchers are kindly requested to submit a 1 to 3 page(s) powerpoint presentation proposal to “ohashi@eng.hokudai.ac.jp” by **Friday 4th October**. The details of the submission as well as the following steps will be separately announced.

Social Event

A cross-cultural exchange tour “History and culture of the indigenous Ainu people”

Friday 18 October 2019 9:00 - 15:00

Meeting Time & Place 9:00 at Lobby of HOTEL MYSTAYS Sapporo Aspen

Dismissing Time & Place 15:00 at Sapporo Station → HOTEL MYSTAYS Sapporo Aspen

*The tour might be extended for half an hour due to weather or traffic conditions.

Internet Access

Eduroam is available at the venue.

ID and password will be provided in the Forum.

Committee

Organizing Committee (Japan):

Co-Chair : Prof. Toshiro Ohashi (Hokkaido Univ.)

Vice Chairs : Prof. Masahiro Yoshizawa-Fujita
(Sophia Univ.)

Prof. Yusuke Gotoh (Okayama Univ.)

Members : Dr. Takayuki Kawai (RIKEN)

Prof. Yasuhiro Sakamoto (Osaka Univ.)

Dr. Kayo Takahashi (RIKEN)

Prof. Hirokazu Tanaka (JAIST)

Prof. Shuhei Furukawa (Kyoto Univ.)

Prof. Tatsunosuke Matsui, Mie
University

Prof. Takufumi Yanagisawa (Osaka Univ.)

Prof. Ori Sakamoto (Sophia Univ.)

Dr. Takahiro Nakamura (Hitachi, Ltd.)

Advisors : Prof. Kazuhide Ito (Kyushu Univ., Co-Chair of 1st forum)

Prof. Tomohiro Kuroda (Kyoto Univ., Co-Chair of 2nd
Forum)

Organizing Committee (Australia):

Co-Chair : Dr. JAZ Hee-Jeong Choi (RMIT University)

Members : Prof. Jonathan Manton (The University of Melbourne, Co-Chair
of 2nd Forum)

Prof. Susanna Guatelli (University of Wollongong, Co-
Chair of 1st forum)

HU Steering Committee

Prof. Norihiro Izumi (Vice Dean, Faculty of Engineering)

Prof. Toshifumi Igarashi (Former Vice Dean, Faculty of Engineering)

Ms. Hitomi Sato (Director, International Affairs Office of Engineering)

Ms. Asaki Honda (International Affairs Office of Engineering)

Mr. Kota Sagawa (International Affairs Office of Engineering)

Observers

EAJ : Prof. Hideaki Koizumi, Executive Vice President
Dr. Kotobu Nagai, Associate Executive Director

ATSE : Dr. Margaret Hartley, Chief Executive Officer
Dr. Carolyn O'Brien, Senior International Relations and Policy Officer

8UEA : Prof. Tetuya Nagasaka, Chairman
Prof. Sunao Ishihara, Executive Director

Australian : Ms. Peta Arbuckle, Counselor

Embassy : Mr./Ms. Dominic Balasuriya, Researcher
Tokyo

Organizers and Sponsor

Organizers : The Engineering Academy of Japan (EAJ)
Australian Academy of Technology and
Engineering (ATSE)

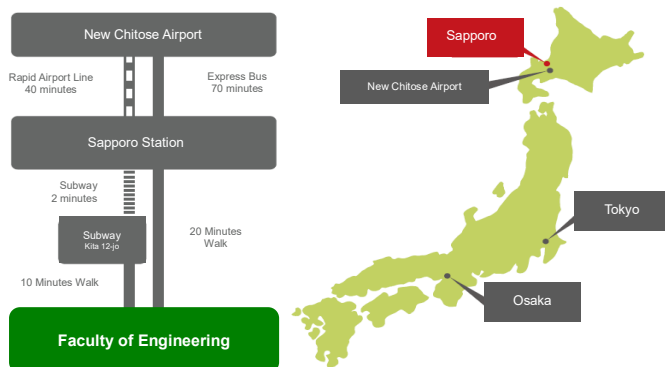
Eight-University Engineering Association
(8UEA)

Hokkaido University (HU)

Sponsor : The Tokyo Club

Access

<Access from New Chitose Airport to the Venue>



[New Chitose Airport→Sapporo Station]

■ JR

JR Rapid Airport Line·····40 minutes

■ Express Bus (Chuo Bus/Hokuto Kotsu Bus)·····70minutes

[Sapporo Station→Faculty of Engineering, HU]

■ Namboku Subway Line

From Kita 12-jo Station·····10 minutes walk

■ Walk·····20 minutes

<Venue>

Frontier Research in Applied Sciences Building, Faculty of Engineering, Hokkaido University
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Inquiry

International Affairs Office of Engineering, Hokkaido University (ERLEP Secretariat Office)

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