

ACESD x ACEEP 2025

CONFERENCE PROGRAM

✧ 2025 10th Asia Conference on Environment and Sustainable Development
(ACESD 2025)

✧ 2025 2nd Asia Conference on Environmental Economics and Policy
(ACEEP 2025)

Fukuoka, Japan

2025/11/08 (Sat.)-11/10 (Mon.) Japan Local Time (UTC+9H)

Venue: Shiiki Hall, Kyushu University (Ito Campus)

Sponsor



Technical Support



九州大学

YNU

横浜国立大学
YOKOHAMA National University



National
Institute for
Environmental
Studies, Japan



国立大学法人
長崎大学
NAGASAKI UNIVERSITY



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ACESD 2025

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ACEEP 2025

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General Information

1 Conference Venue ([Link](#))

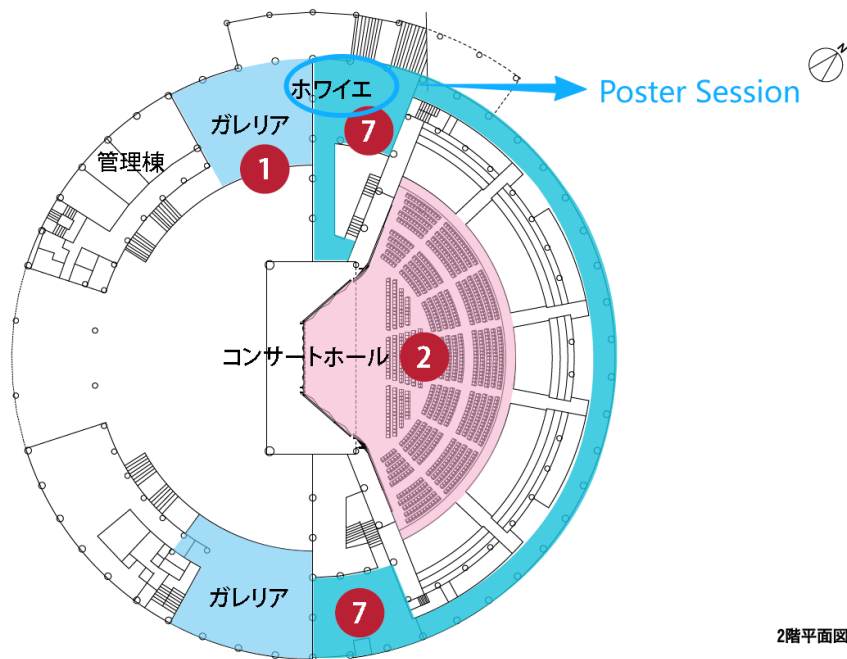
Shiiki Hall, Kyushu University (Ito Campus)

〒819-0395 福岡市西区元岡 744(九州大学 伊都キャンパス内)
744 Motooka Nishi-ku Fukuoka 819-0395, Japan

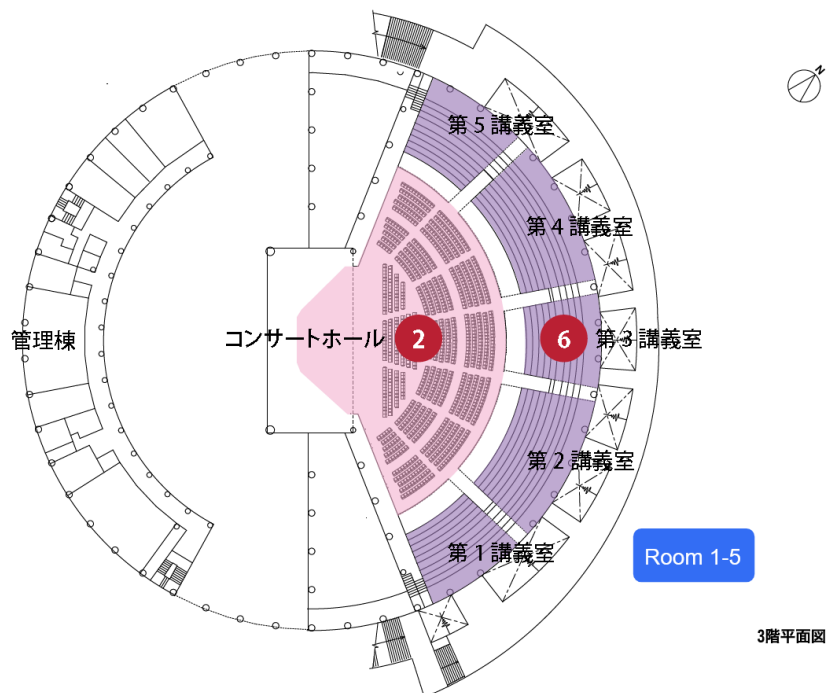


椎木講堂
Shiiki Hall

2nd Floor



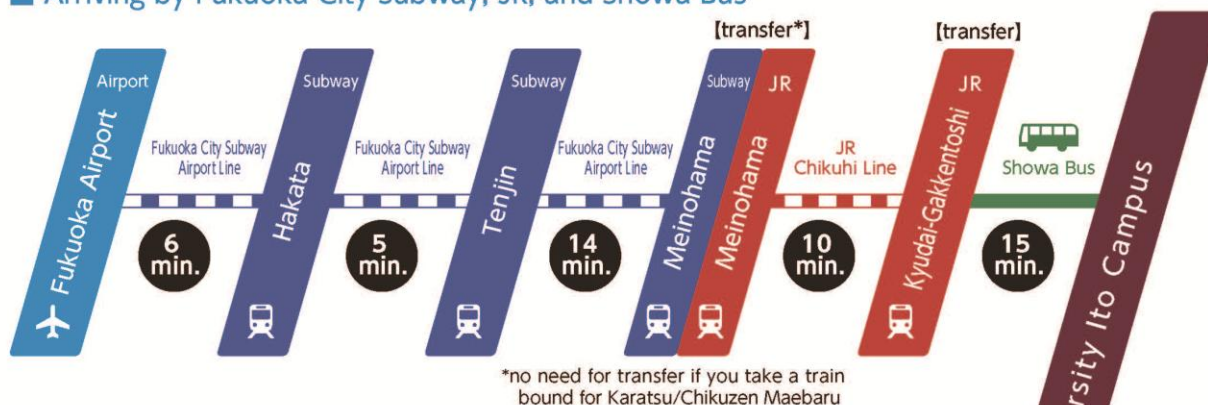
3rd Floor



Level	Meeting Room	Nov. 8, 2025 (Sat.)	Nov. 9, 2025 (Sun.)
2F	North Foyer (北ホワイエ)	/	Poster Session
3F	Room 1 (第1講義室)	Sign-in	Oral Session
	Room 2 (第2講義室)	Keynote & Invited Speech	Keynote & Invited Speech Oral Session
	Room 3 (第3講義室)	/	Oral Session
	Room 4 (第4講義室)	/	Oral Session
	Room 5 (第5講義室)	/	Oral Session

Getting to Ito Campus

■ Arriving by Fukuoka City Subway, JR, and Showa Bus



■ Arriving by Nishitetsu Bus



Free WiFi

User Name: 25110801@Kitenet07

Password: Sa251108-01

Instruction: <https://www.nc.kyushu-u.ac.jp/en/kitenet-en/?#manual>



【Fukuoka Marathon 2025 on Nov. 9】Transportation Tips:

FUKUOKA MARATHON 2025

2025.11.9 sun START!!



Traffic Control: 6:00~16:45

Please be informed that the conference venue will be located within the traffic control area of the Fukuoka Marathon on the event day. Participants are advised to make appropriate travel arrangements in advance.

It is recommended to take the Fukuoka City Subway to **Kyudai-Gakkentoshi Station**, and then transfer to the Showa Bus (**Kyushu Daigaku Line: from Kyudai-Gakkentoshi Station to Kyushu University Big Orange**) to reach the venue before 8:50. **Bus will stop until 8:50 to 12:40.**

← from Kyudai Gakkentoshi-eki(Kyudai Gakkentos...
to Shiiki Hall, 744 Motooka, Nishi Ward, Fukuoka,...

Add to Calendar

6:12 PM ○ Kyudai Gakkentoshi-eki(Kyudai Gakkentoshi Sta.)
1-chōme-6 Kitabarū, Nishi Ward, Fukuoka, 819-0379, Japan

Walk

▼ About 1 min, 72 m

6:13 PM ○ Kyudai Gakkentoshi-eki(Kyudai G...

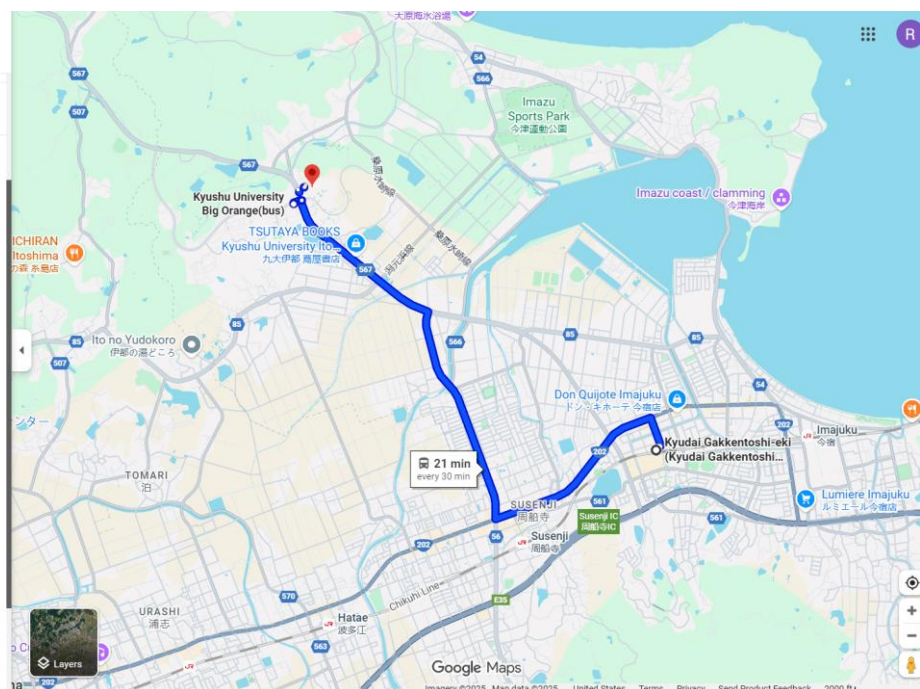
九州大学線 1 九大総合G・協奏館
(周船寺・産学連携交流センター 経由)
▼ 16 min (11 stops)

6:29 PM ○ Kyushu University Big Orange(bus)

Walk

▼ About 4 min, 300 m

6:33 PM ○ Shiiki Hall
744 Motooka, Nishi Ward, Fukuoka, 819-



Bus Time Table

九州大学線 【土日祝】 九大学研都市駅 ⇒ 九州大 Available Time

2025/11/9 (日) 専用時刻表 (福岡マリン2025交通規制) ※x以外の便は通常通り運行いたします。 2025年10月1日改正

行先番号	1	2	3	2A	1	3	2A	1	3
九大学研都市駅	7:20	7:32	8:06	8:18	8:30	8:46	8:58	9:08	9:21
北原	↓	↓	↓	↓	↓	↓	↓	↓	↓
山崎	↓	↓	↓	↓	↓	↓	↓	↓	↓
周船寺東口	↓	↓	↓	↓	↓	↓	↓	↓	↓
周船寺	↓	↓	↓	↓	↓	↓	↓	↓	↓
泉	↓	↓	↓	↓	↓	↓	↓	↓	↓
富士見	↓	↓	↓	↓	↓	↓	↓	↓	↓
たろう保育園前	↓	↓	↓	↓	↓	↓	↓	↓	↓
元岡農協前	↓	↓	↓	↓	↓	↓	↓	↓	↓
舞鶴高校入口	7:23	↓	↓	↓	8:21	↓	↓	↓	↓
横浜西	7:24	↓	↓	↓	8:22	↓	↓	↓	↓
工芸会ワークセンター	7:25	↓	↓	↓	8:23	↓	↓	↓	↓
玄洋高校	7:26	↓	↓	↓	8:24	↓	↓	↓	↓
今出	7:27	↓	↓	↓	8:25	↓	↓	↓	↓
ゲートウェイ	↓	↓	8:09	↓	8:33	↓	↓	↓	↓
学園通	↓	↓	8:10	↓	8:34	↓	↓	↓	↓
元岡郵便局前	7:28	↓	↓	8:11	8:26	8:35	↓	↓	↓
元岡小学校前	7:29	↓	↓	8:12	8:27	8:36	↓	↓	↓
元岡	↓	↓	↓	↓	↓	↓	↓	↓	↓
山手	↓	↓	↓	↓	↓	↓	↓	↓	↓
産学連携交流センター	↓	↓	7:46	8:15	↓	8:39	9:4	↓	↓
西消防署元岡出張所前	↓	↓	7:46	8:15	↓	8:39	9:4	↓	↓
九大学センター南入口	↓	↓	↓	↓	↓	↓	↓	↓	↓
九大学東ゲート	7:35	↓	↓	↓	8:33	↓	↓	↓	↓
九大学イーストゾーン	7:36	↓	↓	↓	8:34	↓	↓	↓	↓
みなと中央図書館	7:37	↓	↓	↓	8:35	↓	↓	↓	↓
九大学ビッグオレン	7:39	7:48	8:17	8:37	8:41	9:4	↓	↓	↓
九大学理学部	7:41	7:50	8:19	8:39	8:43	9:4	↓	↓	↓
九大学工学部	7:42	7:51	8:20	8:40	8:44	9:4	↓	↓	↓
九大学農学部	7:43	7:52	8:21	8:41	8:45	9:4	↓	↓	↓
九大学船舶・航空実験棟	↓	7:53	8:22	↓	8:46	9:4	↓	↓	↓
九大学総合グラウンド	↓	7:54	8:23	↓	8:47	9:4	↓	↓	↓
伊都営業所	↓	↓	↓	↓	↓	↓	↓	↓	↓
桑原西	↓	↓	↓	↓	↓	↓	↓	↓	↓
桑原公民館	↓	↓	↓	↓	↓	↓	↓	↓	↓
桑原東	↓	↓	↓	↓	↓	↓	↓	↓	↓
九大学伊都協賛館	↓	↓	↓	↓	↓	↓	↓	↓	↓
泊北口	7:48	↓	↓	8:46	↓	9:58	↓	11:13	↓
国際村前	7:48	↓	↓	8:46	↓	9:58	↓	11:13	↓
仏青寮前	7:49	↓	↓	8:47	↓	9:59	↓	11:14	↓
一蘭の森(糸島)	7:53	↓	↓	8:51	↓	10:03	↓	11:18	↓

運休

Nearby Hotel Recommendation

[Alba Hotel & Glamping](#)

[Hotel New Gaia Itoshima](#)

[HOTEL AZ Fukuokaitoshimaten](#)

[seven x seven 糸島](#)

2 Onsite Registration

Registration desk (**3F Room 1-第1講義室**) → Inform the staff of your paper ID → Sign-in → Claim your conference kit.

3 Devices Provided by the Organizer

Laptops (with MS-Office & Adobe Reader) / Projectors & Screen / Laser Sticks

4 Materials Provided by the Presenter

Oral Session: Slides (pptx or pdf version). Format 16:9 is preferred. [Template](#)

Poster Session: Size-A1. The author is requested to print the poster themselves and bring it to the venue on the day of the presentation to post it on the whiteboard. [Template](#)

Official language: English.

5 Duration of Each Presentation

Keynote Speech: 40min, including Q&A.

Oral Session: 15min, including Q&A.

Invited Speech: 25min, including Q&A.

Poster Session: 5-10min, including Q&A.

6 Notice

※ All participants are required to display their conference identification badges at all times during conference activities. Transferring badges to another individual is strictly prohibited.

※ Participants are advised to exercise vigilance with their personal valuables throughout the conference. The conference organizer shall assume no responsibility for the loss or theft of personal property.

※ **All conference schedules are set to Japan Standard Time (JST, UTC+9). Please be mindful of the time difference and plan your attendance accordingly.**

Welcome Message

Dear All,

On behalf of the conference organizing committees, we are delighted to welcome you to conference of 2025 10th Asia Conference on Environment and Sustainable Development (ACESD 2025), along with 2025 2nd Asia Conference on Environmental Economics and Policy (ACEEP 2025) which is sponsored by iNehc, IJESD and technically supported by Kyushu University, Yokohama National University, National Institute for Environmental Studies, Nagasaki University and Japan International Cooperation Agency.

The objective of the conferences is to provide a premium platform to bring together researchers, scientists, engineers, academics and graduate students to share up-to-date research results. We are confident that during this time you will get the theoretical grounding, practical knowledge, and personal contacts that will help you build a long term, profitable and sustainable communication among researchers and practitioners in the related scientific areas.

This year's program is composed of 11 oral sessions (on-site & online) and 1 poster session, 5 invited speeches and 6 keynote speeches delivered respectively by Prof. King-Jet Tseng (IEEE Fellow, Singapore Institute of Technology, Singapore), Prof. Dennis Y.C. Leung (the University of Hong Kong, Hong Kong, China), Dr. Koichi Haraguchi (National Institute for Minamata Disease, Ministry of the Environment, Japan), Prof. Pasquale Avino (University of Molise, Italy), Prof. Helena Nadais (University of Aveiro, Portugal) and Assoc. Prof. Akira Nishimura (Mie University, Japan). We would like to express our gratitude to all the speakers in this conference. Special thanks to all of our committee members, all the reviewers, and the attendees for your active participation. Hope you could enjoy the conference and have an unforgettable experience!

We are looking forward to seeing you in Fukuoka!

With Warmest Regards,

Conference Organizing Committees

ACESD 2025 x ACEEP 2025



Conference Committees

International Advisory Chair

Vincenzo Belgiorno, University of Salerno, Italy

International Advisory Committees

Mitsuo Yoshida, International Network for Environmental and Humanitarian Cooperation, Nonprofit Inc., Japan

Xi Lu, Tsinghua University, China

Chikashi Sato, Idaho State University, USA

Pasquale Avino, University of Molise, Italy

Helena Nadais, University of Aveiro, Portugal

Dennis Y.C. Leung, the University of Hong Kong, Hong Kong, China

Honorary Chair

Richard Haynes, University of Queensland, Australia

General Chair

Keiji Ujikawa, Yokohama National University, Japan

Conference Co-chair

Shane Snyder, Nanyang Technological University, Singapore

Conference Local Arrangement Chair

Mitsunori Hirogaki, Kyushu University, Japan

Conference Program Chairs

Eric van Hullebusch, University of Paris, France

Dimitrios Karamanis, University of Patras, Greece

Fani Sakellariadou, University of Piraeus, Greece

Mikio Ishiwatari, Meiji University, Japan

Publicity Chairs

Kei Nakagawa, Nagasaki University, Japan

Kosuke KAWAI, National Institute for Environmental Studies, Japan

ACESD International Program Committees

Anabelle Dece A. Espadero, Mindanao State University at Naawan, Philippines

Luis Carlos Mabaquiao, University of the Philippines, Philippines

Mailinda Eka Yuniza, Universitas Gadjah Mada, Indonesia



Kazushi Noro, University of Shizuoka, Japan
 Junko Mimaki, Meiji University, Japan
 Chatchai Khiewngamdee, Chiang Mai University, Thailand
 Joselito Abierta Olalo, Camarines Norte State College, Philippines
 Lester P. Acoba, National University, Philippines
 Louise Grace Avena-Ardeta, Mapua University, Philippines
 Gassan Hodaifa Meri, Pablo de Olavide University, Spain
 Kazuma Edamura, Kanagawa University, Japan
 Ibrahim Maamoun, Kyushu University, Japan
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 Chin-Hsien Liao, Chinese Culture University, Taiwan, China
 Luan Trong Nguyen, FPT University, Vietnam
 Chatchai Khiewngamdee, Chiang Mai University, Thailand
 Arnab Ghosh, Dong-A University, South Korea
 Bharat Manna, University of Auckland, New Zealand
 Tomoki Fujii, Singapore Management University, Singapore
 Rosario Michel-Villarreal, University of Leeds, UK
 Manoj Khandelwal, Federation University, Australia
 Angel Torriero, Deakin University, Australia
 Dina Matthew, Instituto Politécnico de Tomar, Portugal
 Alban Kuriqi, University of Lisbon, Portugal
 Tanushree Paul, Dong-A University, South Korea
 Antoine Belleguie, Gustave Eiffel University, France
 Sofiah Hamzah, Universiti Malaysia Terengganu, Malaysia
 Kah Hon LEONG, Universiti Tunku Abdul Rahman, Malaysia
 Maegala Nallapan Maniyam, University Selangor, Malaysia
 Dulini Yasara Mudunkotuwa, University of Sri Jayewardenepura, Sri Lanka
 Akhmad Fauzi, Bogor Agricultural University, Indonesia
 Min-Hao Yuan, China Medical University, Taiwan, China
 Ying-Chiao Wang, NSYSU, Taiwan, China
 Shabir Hussain, Prince Sultan University, Saudi Arabia
 Tze San Ong, Universiti Putra Malaysia, Malaysia
 Ambar Pertiwinigrum, Gadjah Mada University, Indonesia
 Yuk Feng Huang, Universiti Tunku Abdul Rahman, Selangor, Malaysia
 Müslüm Arıcı, Kocaeli University, Turkey
 Ramkiran B., SASTRA Deemed University, India
 Shadananan Nair, Centre for Earth Research and Environment Management, India
 Weeranut Intagun, Silpakorn University, Thailand
 Shehzar Shahzad Sheikh, National University of Science and Technology (NUST), Pakistan



ACEEP International Program Committees

Ibrahim Maamoun, Kyushu University, Japan
Bharat Manna, University of Auckland, New Zealand
Tomoki Fujii, Singapore Management University, Singapore
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Manoj Khandelwal, Federation University, Australia
Angel Torriero, Deakin University, Australia
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Dulini Yasara Mudunkotuwa, University of Sri Jayewardenepura, Sri Lanka
Akhmad Fauzi, Bogor Agricultural University, Indonesia
Min-Hao Yuan, China Medical University, Taiwan
Ying-Chiao Wang, National Sun Yat-Sen University, Taiwan
Shabir Hussain, Prince Sultan University, Saudi Arabia
Tze San Ong, Universiti Putra Malaysia, Malaysia
Ambar Pertiwinigrum, Gadjah Mada University, Indonesia
Yuk Feng Huang, Universiti Tunku Abdul Rahman, Selangor, Malaysia
Müslüm Arıcı, Kocaeli University, Turkey
Shadananan Nair, Centre for Earth Research and Environment Management, India
Weeranut Intagun, Silpakorn University, Thailand
Shehzar Shahzad Sheikh, National University of Science and Technology (NUST), Pakistan



Agenda Overview (UTC+9)

November 8, 2025 (Sat.)	Online Zoom Test
Zoom Test for Online Presenters	
10:00~11:30	Zoom ID: 841 4345 9384 Link: https://us02web.zoom.us/j/84143459384
 Download Link: https://zoom.us/download	

To ensure a smooth presentation, all online presenters are required to attend a mandatory technical rehearsal. Please note the following details:

- ✧ Date & Time: **November 8, 2025 (Sat.)**. Each presenter is allocated a 3-minute time slot.
- ✧ Preparation: We recommend installing the Zoom client on your computer prior to the session.
- ✧ Joining: No Zoom account is required; you may join as a guest.
- ✧ Procedure: You may leave the meeting immediately after your audio, video, and screen sharing tests are complete.

◆Name Setting

- ✧ Keynote Speaker: KN-Name
- ✧ Invited Speaker: IS-Name
- ✧ Committee: Position-Name
- ✧ Author: Paper ID-Name
- ✧ Delegate: Delegate-Name

◆Useful Links

- ✧ [Conference Banner](#)
- ✧ [Zoom Background](#)

Zoom Test Timetable

10:00~11:00	IS-Dr. Bharat Manna IS-Dr. Ramkiran B CE059 CE041 CE079 CE087 CE192-A CE725
11:00~11:30 Alternative time for participants who are unavailable at allocated time. Other online participants, includes but not limited to keynote speaker, session chair, committee member, delegate.	



Agenda Overview (UTC+9)

November 8, 2025 (Sat.)		On-site
10:00~17:00	Registration-Shiiki Hall 3F: Room 1 (第 1 講義室) Conference Materials Collection	
Keynote & Invited Speech-Part A		Room 2 (第 2 講義室)
Chairman: Dr. Mitsuo Yoshida, Global Environment Department, Japan International Cooperation Agency (JICA), Tokyo, Japan (International Advisory Committee)		
14:00~14:10	Opening Remarks: Prof. Keiji Ujikawa, Yokohama National University, Japan (Conference General Chair)	
14:10~14:50	Keynote Speech I: Prof. Pasquale Avino, University of Molise, Italy Speech Title: Artificial Intelligence for Air Quality Assessment and Management: Current Challenges, Emerging Applications, and Future Perspectives	
14:50~15:30	Keynote Speech II: Prof. Helena Nadais, University of Aveiro, Portugal Speech Title: Bioreactors for Sustainability: Microbial Communities Turning Microelectronics Effluents into Circular Opportunities	
15:30~15:50	Group Photo & Coffee Break	
15:50~16:30	Keynote Speech III: Assoc. Prof. Akira Nishimura, Mie University, Japan Speech Title: Clarification on Reaction Characteristics of Biogas Dry Reforming Membrane Reactor	
16:30~16:55	Invited Speech I: Dr. Mitsuo Yoshida, Global Environment Department, Japan International Cooperation Agency (JICA), Tokyo, Japan Speech Title: Preventing Asbestos Pollution - A Slow Time Bomb, Challenges of Capacity Development in Asbestos Management	

November 9, 2025 (Sun.)		On-site
8:30~	Registration-Shiiki Hall 3F: Foyer Conference Materials Collection	
Keynote & Invited Speech-Part B		Room 2 (第 2 講義室)
Chairman: Prof. Kei Nakagawa, Nagasaki University, Japan (Publicity Chair)		
9:00~9:40	Keynote Speech IV: Prof. King-Jet Tseng, Singapore Institute of Technology, Singapore (IEEE Fellow) Speech Title: Designing Electrical Energy Storage Systems for Sustainable Energy Grids	
9:40~10:20	Keynote Speech V: Prof. Dennis Y.C. Leung, the University of Hong Kong, Hong Kong, China Speech Title: Application of nano-photocatalytic technology for enhancing environmental and energy performance of ships and submerged water surfaces	
10:20~10:50	Group Photo & Coffee Break	



10:50~11:30	Keynote Speech VI: Dr. Koichi Haraguchi, National Institute for Minamata Disease, Ministry of the Environment, Japan Speech Title: Scientific Support for the Minamata Convention: Mercury Exposure and Analytical Capacity Building
11:30~11:55	Invited Speech II: Prof. Kei Nakagawa, Nagasaki University, Japan Speech Title: Coprostanol Adsorption in Soil Column Experiments: Implications for Groundwater Contamination
12:00~13:00	Lunch: Room 2 (第2講義室)

Poster Session & Oral Session		
Time	Presentations	Venue
13:00~15:15	Poster Session: Environmental Pollution Monitoring, Assessment and Remediation Chairman: Dr. Mitsuo Yoshida, Global Environment Department, Japan International Cooperation Agency (JICA), Tokyo, Japan CE045-A CE101-A CE060-A CE061-A CE063-A CE199-A CE067-A CE068-A CE082-A CE089-A CE094-A CE221	2F North Foyer (2F 北ホワイエ)
13:00~15:10	Oral Session 1: Carbon Capture, Carbon Storage, and Carbon Management Chairman: Asst. Prof. Yaowatat boongla, Thammasat University, Thailand Invited Speech III: Jitendra Sangwai (CE1023-A) CE071-A CE171 CE155-A CE720 CE075-A CE080 CE222	Room 1 (3F 第1講義室)
13:00~15:15	Oral Session 2: Environmental Fate, Risk Assessment, and Sustainable Control of New Pollutants Chairman: Asst. Prof. Ramon Francisco Q. Padilla, Mindanao State University at Naawan, Philippines CE145-A CE053-A CE073-A CE1004-A CE146-A CE121 CE147-A CE065-A CE154	Room 2 (3F 第2講義室)
13:00~15:15	Oral Session 3: Waste Management, Resource Recycling, and Circular Economy Chairman: Asst. Prof. Lester P. Acoba, National University, Philippines CE012 CE088-A CE029-A CE099 CE111-A CE066 CE149 CE140 CE220	Room 3 (3F 第3講義室)
13:00~15:15	Oral Session 4: Green Infrastructure and Urban Sustainable Planning Chairman: Assoc. Prof. Chia-Hui Wang, National Taipei University, Taiwan CE097 CE115-A CE093 CE131 CE197 CE190-A CE204 CE144-A CE159-A	Room 4 (3F 第4講義室)
13:00~15:15	Oral Session 5: Climate Change Impacts and Adaptive Management Chairman: Prof. Akhmad Fauzi, IPB University, Indonesia CE092-A CE085-A CE712 CE107-A CE112 CE117 CE150 CE098 CE707-A	Room 5 (3F 第5講義室)
15:10~15:30	Coffee Break	



Time	Presentations	Venue
15:30~18:00	Oral Session 6: Ecosystems and Biodiversity Chairman: Prof. Dan Johnson, University of Lethbridge, Canada CE078 CE167 CE125 CE083 CE166-A CE095-A CE086 CE126 CE158 CE109-A	Room 1 (3F 第 1 講義室)
15:30~17:45	Oral Session 7: Wastewater Treatment and Water Resource Management Chairman: Prof. Kei Nakagawa, Nagasaki University, Japan CE044 CE050 CE014-A CE074-A CE119 CE056-A CE194 CE015-A CE218	Room 2 (3F 第 2 講義室)
15:30~18:00	Oral Session 8: Social Behaviors and Policies for Sustainable Development Chairman: Asst. Prof. Luis Carlos Mabaquiao, University of the Philippines, Philippines CE027 CE705-A CE064 CE091 CE127 CE136 CE090-A CE026-A CE084 CE108-A	Room 3 (3F 第 3 講義室)
15:30~18:00	Oral Session 9: Sustainable Energy Transition: Policies, Technologies, and Economic Resilience Chairman: Assoc. Prof. Chatchai Khiewngamdee, Chiang Mai University, Thailand CE102-A CE018 CE730-A CE118-A CE106-A CE120 CE164-A CE195 CE039 CE219	Room 4 (3F 第 4 講義室)
15:30~17:15	Oral Session 10: Corporate Sustainable Governance and ESG Practices Chairman: Prof. Wanja Wellbrock, Heilbronn University, Germany CE601 CE709-A CE711 CE717-A CE7004-A CE173 CE172	Room 5 (3F 第 5 講義室)
18:30~20:30	Dinner & Lucky Draw (Glocal Hotel Itoshima) *A complimentary shuttle bus operates on a circular route connecting Shiiki Hall, the restaurant, and Gakken-Toshi-Mae Station.	



November 10, 2025 (Mon.)		Online Presentation
Invited Speech & Oral Session		
9:00~11:20	Online Session: Environmental Management, Energy Conservation, and Sustainable Development Chairman: Dr. Bharat Manna, The University of Auckland, New Zealand Invited Speech IV & V: Bharat Manna; Ramkiran B (CE1002-A) CE059 CE041 CE079 CE087 CE192-A CE725	Zoom ID <u>841 4345 9384</u>

November 10, 2025 (Mon.)		One-day Tour
 Fukuoka & Yufuin 📍 Pick-up & Drop-off Location: Hakata Station-Family Mart (4-32 Hakataekichūōgai, Hakata Ward, Fukuoka, 812-0012, Japan / 〒812-0012 福岡県福岡市博多区博多駅中央街 4 - 3 2 1 階)		
08:30	Depart from Hakata Station	
09:00~10:00	Ohori Park (大濠公園) & Fukuoka Castle Ruins (福岡城) • Enjoy a scenic stroll around Ohori Park, famous for its beautiful moat and walking paths. • Explore the historic Fukuoka Castle Ruins for panoramic city views and photo opportunities.	
10:30~11:30	Dazaifu Tenmangu Shrine (太宰府天満宮) • Visit the shrine for worship. • Explore the traditional Monzenmachi (shrine approach street) for local snacks and souvenirs.	
11:30~13:00	Scenic Drive to Yufuin (approx. 1.5 hours).	
13:00~14:30	Lunch in Yufuin • Free time for lunch at your own expense.	
14:30~17:00	Yufuin Exploration (湯布院) • Stroll through the charming town of Yufuin (Yufuin Floral Village, Hot Spring, Kinrin Lake, etc.). • Browse unique artisan shops, galleries, and enjoy the natural scenery.	
17:00~18:30	Return Journey to Hakata Station (approx. 1.5 hours).	



Keynote Speech (UTC+9)

Keynote Speech I**14:10~14:50****November 8, 2025 (Sat.)****3F: Room 2 (第2講義室)****Shiiki Hall, Kyushu University (Ito Campus)**

Prof. Pasquale Avino
University of Molise, Italy

Speech Title: Artificial Intelligence for Air Quality Assessment and Management: Current Challenges, Emerging Applications, and Future Perspectives

Abstract: Air quality—both indoors and outdoors—has become one of the most urgent and multifaceted environmental issues of our time, attracting growing concern from scientists, policymakers, and the public alike. The increasing body of research underscores how deeply air pollution affects not only human health, but also social and economic stability on a global scale (Wu et al., 2024). Exposure to pollutants such as particulate matter, nitrogen oxides, and volatile organic compounds is now recognized as a leading contributor to respiratory and cardiovascular diseases, cognitive decline, and premature mortality. Beyond health, deteriorating air quality exacerbates environmental degradation, influencing climate dynamics and reducing overall quality of life in urban and rural areas alike.

Despite considerable scientific progress and the establishment of monitoring networks worldwide, the field of air quality research continues to face significant challenges. Many key variables—such as pollutant dispersion, source attribution, and chemical transformations in the atmosphere—remain difficult to quantify with precision. The prediction of short-term pollution peaks or long-term concentration trends is complicated by the intricate interplay of meteorological, geographical, and anthropogenic factors (Jin et al., 2022). These complexities highlight the limitations of conventional monitoring and modeling approaches, which often struggle to capture non-linear relationships and spatial variability at fine scales.

In recent years, artificial intelligence (AI) has emerged as a transformative ally in addressing these limitations. A growing number of studies (Amin Al-Habaibeh et al., 2024) demonstrate the capacity of AI to revolutionize air quality monitoring and forecasting systems. Machine learning and deep learning algorithms have been successfully applied to tasks such as vehicle detection, traffic volume estimation, and pollutant concentration prediction, often achieving levels of accuracy that surpass those of traditional statistical methods prone to human error and data gaps. Furthermore, AI offers the ability to process vast amounts of heterogeneous data—from satellite imagery and sensor networks to social media feeds—in near real time, substantially accelerating both data collection and analysis while minimizing anomalies and uncertainty in results.

Among the most promising AI approaches are Decision Trees, Random Forests, Convolutional Neural Networks (CNNs), and hybrid frameworks that combine multiple algorithms to capture complex variable interactions. These methods not only enhance predictive performance but also improve interpretability and scalability across diverse urban and climatic contexts. However, despite their potential, the widespread adoption of AI-based air quality systems remains constrained by several factors, including high computational and equipment costs, limited access to high-quality training datasets, and a persistent shortage of interdisciplinary expertise capable of bridging environmental science and data science (Olawade et al., 2024). Overcoming these barriers will be crucial to fully harnessing the power of AI for cleaner air and healthier, more resilient communities.

Pasquale Avino received his Master Degree in Chemistry in 1992 and his Ph.D. in Chemical Sciences at the University of Rome “La Sapienza” in 1997. He was appointed as Post-Doc (1997-1998) at the Department of Chemistry of the University of California, Irvine (UCI) in the Rowland (Nobel Prize in chemistry in 1995) and Blake group. From 1999 until January 2018, he was appointed as Researcher at the ISPESL/INAIL Research Center and from February 2018 to January 2021 Prof. Avino was appointed as Three-years Term Researcher contract and from February 2021 he is currently Associate Professor at the Department of Agricultural, Environmental and Food Sciences of the University of Molise, Campobasso, in Analytical Chemistry and Environmental Chemistry. He is following the studies devoted to the development of innovative analytical methodologies for development and application of analytical and sampling

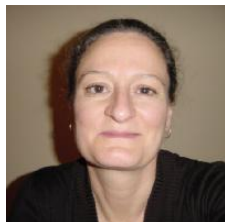
methods for the qualitative and quantitative determination of chemical compounds (e.g., contaminants, pollutants, nutrients) in food, agricultural, biological and anthropogenic matrices.

He was the recipient of the "Group Achievement NASA Award" in 1998. In 1998 he was awarded with the "Next Generation Award" during the 22nd International Symposium on Chromatography. In 2003 he was the recipient of the "Environmental Sapio" Award for his research in the environmental field. In 2022 he received the Medal for Ecology from the Moldavian Chemical Society. In 2024 he received the highest honor of the Institute of Ecotoxicology and Environmental Sciences (IE&ES), the "Fellowship Award" for your outstanding contribution to the society through the field of environmental science.

Prof. Avino is author and co-author of different scientific publications including original papers published on national and international journals and books (from Scopus data-base, <https://www.scopus.com/authid/detail.uri?authorId=55916508700>: 231 papers, 4722 citations, hindex 41).



Keynote Speech (UTC+9)

Keynote Speech II**14:50~15:30****November 8, 2025 (Sat.)****3F: Room 2 (第2講義室)****Shiiki Hall, Kyushu University (Ito Campus)**

Prof. Helena Nadais
University of Aveiro, Portugal

Speech Title: Bioreactors for Sustainability: Microbial Communities Turning Microelectronics Effluents into Circular Opportunities

Abstract: The microelectronics sector, fundamental to smart technologies and digital transitions, generates highly complex effluents rich in solvents, metals, and recalcitrant compounds. Their safe treatment is essential to minimize environmental impacts and to advance sustainable industrial development. In this keynote, we present insights from long-term anaerobic treatment experiments in semi-continuous bioreactors, designed to evaluate the acclimation of microbial communities to semiconductor wastewater. Over more than 130 days of operation, we monitored system performance through methanization efficiency, Chemical Oxygen Demand removal, and the stability of metabolic pathways, complemented by high-resolution microbial community analysis (16S rRNA gene sequencing). Results confirm the resilience of anaerobic biomass sourced from municipal wastewater treatment plants, demonstrating the capacity of microorganisms not only to adapt but also to biodegrade challenging effluent compositions, while producing renewable energy as biogas.

Beyond technical performance, this research underscores its contribution to the United Nations Sustainable Development Goals (notably SDG 6) by promoting access to clean water and effective wastewater management. By transforming industrial effluents into a resource stream—recovering energy, valorizing biomass, and reducing pollutant loads—the approach reflects the principles of the circular economy and offers a pathway to decarbonize and green high-tech industries. Monitoring microbial dynamics provides the scientific basis for optimizing biological processes, enabling more robust and tailored strategies for industrial wastewater treatment.

This work highlights how biotechnology and microbial ecology can converge to support sustainable industry practices, reduce dependence on fossil-based processes, and foster environmental protection. By closing loops in water and energy use, anaerobic bioreactors treating microelectronics wastewater stand as a compelling example of innovation at the service of sustainability.

Helena Nadais is a Chemical Engineer and Assistant Professor at the University of Aveiro, specializing in environmental sciences with a particular focus on water and wastewater treatment processes. Her academic background includes a Master Degree in Chemical Engineering, specializing in Processes and Industry, from Lisbon Technical University and a PhD in Applied Environmental Sciences from the University of Aveiro. Her doctoral research pioneered new methodologies for treating industrial wastewater with an emphasis on energy recovery. Nadais has been a faculty member since 2003, teaching and doing extensive research in the treatment and valorization of water and industrial effluents. She is recognized for her scholarly contributions with an H-index of 19, and she has authored 38 publications in WoS-indexed journals. Her professional engagements include leading and participating in numerous national and international research projects, fostering industry-academia collaborations, and enhancing the application of sustainable practices in environmental management. Helena Nadais is currently involved as scientific researcher in four national and international research projects focusing on material and energy recovery from wastes.



Keynote Speech (UTC+9)

Keynote Speech III**15:50~16:30****November 8, 2025 (Sat.)****3F: Room 2 (第2講義室)****Shiiki Hall, Kyushu University (Ito Campus)**

Assoc. Prof. Akira Nishimura
Mie University, Japan

Speech Title: Clarification on Reaction Characteristics of Biogas Dry Reforming Membrane Reactor

Abstract: The production of H₂ as a clean energy carrier has attracted considerable attention in recent years because of its potential to address climate change and decrease reliance on fossil fuels. Among the different methods for generating H₂, biogas dry reforming (BDR) stands out as a promising approach to utilize a renewable feedstock and create a valuable product. A biogas is a fuel consisting of CH₄ (55 – 75 vol%) and CO₂ (25 – 45 vol%), generally. It is produced from fermentation by the action of anaerobic microorganisms on raw materials, e.g., garbage, livestock excretion, and sewage sludge. It can be expected that the amount of produced biogas to increase more and more in the near future. Therefore, this study thinks a biogas is a promising source for producing H₂. While biogas is commonly utilized as a fuel for gas engines and micro gas turbines, its lower heating value due to its significant CO₂ content can limit power generation efficiency. To overcome this limitation, this study proposes a synergistic system integrating a BDR reactor with a solid oxide fuel cell (SOFC). CO, which is a by-product from BDR, as well as H₂, can be used as a fuel for SOFC. Consequently, this study thinks that this system can be used for a wider operation application compared to the existing system. Many researches on BDR have been reported. To decide the performance of a BDR reactor, this study thinks the selection of the catalyst is important. According to the literature survey, the Ni-based catalyst has shown promising results, challenges such as catalyst deactivation, carbon formation, and H₂/CO ratio control remain to be addressed. Recent advancements in catalyst design and process engineering have aimed to mitigate these issues and enhance the overall efficiency of BDR. For example, the incorporation of promoters or supports can improve catalyst stability and selectivity, while advanced reactor configurations can optimize heat and mass transfer. Though several Ni alloy catalysts have been investigated, few Ni/Cr catalysts were reported, except for the experimental studies using a membrane reactor, which were conducted by the authors of this study. These previous studies reported Ni/Cr catalyst exhibited the better performance compared to Ni catalyst due to it preventing a carbon deposition. The H₂ yield obtained by Ni/Cr catalyst was approximately 10 – 100 times as large as that of Ni catalyst, which depended on the experimental condition. The H₂ yield increased with the increase in temperature from 400 °C to 600 °C, irrespective of the molar ratio of CH₄:CO₂. The highest H₂ yield, which was 12.8 %, was obtained using Ni/Cr in the case of CH₄:CO₂ = 1.5:1 at 600 °C, and the differential pressure between the reaction chamber and the sweep chamber was 0.010 MPa without sweep gas. Additionally, the CO selectivity was much larger than H₂ selectivity within the temperature range from 400 °C to 600 °C, which was over 90 %. According to the previous studies, it was thought not only dry reforming (DR) but also the other reactions were conducted. However, the characteristics of Ni/Cr alloy catalyst used for BDR including the other reactions has not been investigated. The aim of this study is to clarify the impact of operation conditions, e.g. reaction temperature and inflow gas molar ratio on biogas dry reforming reaction characteristics. The experimental investigation described above as well as the numerical simulation using the commercial software COMSOL Multiphysics have been carried out to realize this aim.

Dr. Akira Nishimura is an associate professor in Division of Mechanical Engineering at Mie University, Japan. He received the B.S. Eng., the M.S. Eng. and Dr. Eng. degrees in Chemical Engineering from Nagoya University, Japan in 1995, 1997 and 2000, respectively. He worked at Center for Integrated Research in Science and Engineering, Nagoya University as research associate from 2000 to 2002. He moved to Mie University in 2002 as an assistant professor and promoted to associate professor from 2014. He has published 107 journal papers which are reviewed. His current researches are clarification on heat and mass transfer mechanism of polymer electrolyte fuel cell, CO₂ reduction by photocatalyst, H₂ production from biogas and smart city utilizing renewable energy actively.

Keynote Speech (UTC+9)

Keynote Speech IV**9:00~9:40****November 9, 2025 (Sun.)****3F: Room 2 (第2講義室)****Shiiki Hall, Kyushu University (Ito Campus)**

Prof. King-Jet Tseng (IEEE Fellow)
Singapore Institute of Technology, Singapore

Speech Title: Designing Electrical Energy Storage Systems for Sustainable Energy Grids

Abstract: Designing electrical energy storage systems for grid-integrated applications involves addressing the challenges of integrating renewable energy sources into the power grid. These systems play a crucial role in enhancing grid stability, reliability, and efficiency by providing services such as frequency regulation, voltage support, and power quality improvement. The design process includes selecting appropriate storage technologies, such as lithium-ion batteries, pumped hydro storage, or flywheels, based on factors like energy density, efficiency, and cost. Additionally, it involves developing control strategies to manage the charge and discharge cycles, ensuring optimal performance and longevity of the storage system. Integration with renewable energy sources, such as solar and wind, requires advanced forecasting and energy management techniques to balance supply and demand effectively. Furthermore, compliance with international standards and regulations, such as IEC 62933 and UL 9540A, is essential to ensure safety and reliability. Overall, the successful design of grid-integrated energy storage systems is key to achieving a sustainable and resilient energy future.

King-Jet Tseng was born in Singapore and received B.Eng. (First Class) and M.Eng. from National University of Singapore, and Ph.D. from Cambridge University in England. He is a Fellow of IEEE, Fellow of IET, a Fellow of IES and registered as Chartered Engineer with UK Engineering Council. He has more than 35 years of academic, research, industrial and professional experience in electrical power and energy systems. Currently, he is the Professor and Advisor for Electrical Power Engineering at Singapore Institute of Technology, working on his vision of future urban electrical distribution architecture which can provide flexible and heterogeneous power quality for greater sustainability. He continues to contribute to the International Electrotechnical Commission as a standardization expert for grid-integrated electrical energy storage systems.



Keynote Speech (UTC+9)

Keynote Speech V**9:40~10:20****November 9, 2025 (Sun.)****3F: Room 2 (第2講義室)****Shiiki Hall, Kyushu University (Ito Campus)**

Prof. Dennis Y.C. Leung
the University of Hong Kong, Hong Kong, China

Speech Title: Application of nano-photocatalytic technology for enhancing environmental and energy performance of ships and submerged water surfaces

Abstract: Fouling is a prevalent issue in seawater, as it involves the accumulation and growth of microorganisms like barnacles and tubeworms on all submerged objects. To prevent fouling on surfaces underwater, antifouling coatings are typically applied to boats, yachts, and seawater cooling gates. This not only enhances the speed of ships but also improves the efficiency of water-cooled air conditioning systems. In this keynote speech, I shall first discuss the general materials used for fouling protection and their limitations in usage. Furthermore, a newly developed nano-sized photocatalytic coating that effectively controls the growth of microorganisms on yacht hulls and seawater gates will be introduced. By utilizing these materials, the need for frequent removal of deposited microorganisms is minimized, reducing maintenance costs and improving fuel efficiency. Towards the end of the talk, the prospects of applying these photocatalytic materials to control antifouling on other marine structures will be explored.

Prof. Dennis Y.C. Leung received his BEng (1982) and PhD (1988) from the Department of Mechanical Engineering at the University of Hong Kong (HKU). Professor Leung joined HKU Mechanical Engineering Department in 1993 as a lecturer, became a full professor in 2007 and head of department in 2020 till 2023. Professor Leung specializes in environmental pollution control and renewable & clean energy research. He has published more than 600 articles in this area including 370+ peer reviewed papers in top SCI journals such as Nature Communications, Energy and Environmental Sciences and Advanced Materials. His current h-index is 100 and total citations are 52000+. He is one of the top 1% highly cited scientists in the world in energy field since 2010 (Essential Science Indicators) and named as a Highly Cited Researcher by Clarivate Analytics for six consecutive years from 2017 to 2022. Prof. Leung has delivered more than 80 keynote and invited lectures in many international conferences. Prof. Leung is a chartered engineer, a fellow of the IMechE and Energy Institute. He was also the Past Chairman of the Institute of Energy (HK Branch), and currently serves as an editorial board member for a number of journals including Applied Energy, Energy Conversion and Management, Applied Sciences, and Progress in Energy. Prof. Leung also serves as a board member of the Hong Kong Institution of Science, chairman and member of a few committees of the HKSAR government and government's appeal board panels related to sustainable energy and environment. Professor Leung received the Environmental Champion Award (Hong Kong) in 2008 and Advanced Materials Laureate from the International Association of Advanced Materials in 2024.



Keynote Speech (UTC+9)

Keynote Speech VI**10:50~11:30****November 9, 2025 (Sun.)****3F: Room 2 (第2講義室)****Shiiki Hall, Kyushu University (Ito Campus)****Dr. Koichi Haraguchi****National Institute for Minamata Disease, Ministry of the Environment, Japan**

Speech Title: Scientific Support for the Minamata Convention: Mercury Exposure and Analytical Capacity Building

Abstract: Mercury exposure remains a significant concern for vulnerable populations, including workers engaged in traditional artisanal practices and consumers of unregulated skin-lightening products. To support the implementation of the Minamata Convention, targeted exposure assessments and laboratory capacity-building efforts have been conducted in collaboration with UNEP and other partners. This presentation highlights field studies on elemental mercury exposure among gold-plating workers in Nepal, where limited protective measures have resulted in elevated health risks. It also introduces recent findings on mercury content in skin-lightening creams, some of which are fraudulently labeled or traded across borders. In parallel, an international proficiency testing (PT) program was launched to strengthen analytical capacity for mercury determination, with active participation from laboratories in Asia, Africa, and Latin America. These efforts aim to improve data reliability and support national mercury monitoring frameworks. Through these integrated activities—field surveys, consumer product analysis, and PT-based technical assistance—this talk illustrates how scientific collaboration contributes to evidence-based policy development and protects communities most at risk from mercury exposure.

Dr. Haraguchi is the Chief of the Mercury Analysis Technique Section at the National Institute for Minamata Disease (NIMD), Ministry of the Environment, Japan. He earned his Ph.D. in Agriculture from the Graduate School of Agricultural Science, Tohoku University. His research focuses on mercury exposure assessment and analytical quality assurance. He has led the development and provision of certified reference materials (CRMs) to improve the reliability and comparability of mercury measurements across laboratories. He also coordinates international proficiency testing programs in collaboration with the UNEP, and contributes to technical cooperation efforts through the JICA, particularly in Central America. These activities support the implementation of the Minamata Convention by promoting reliable data and enhancing analytical capacity worldwide.



Invited Speech (UTC+9)

Invited Speech I**16:30~16:55****November 8, 2025 (Sat.)****3F: Room 2 (第2講義室)****Shiiki Hall, Kyushu University (Ito Campus)****Dr. Mitsuo Yoshida****Global Environment Department, Japan International Cooperation Agency (JICA),
Tokyo, Japan****Speech Title: Preventing Asbestos Pollution - A Slow Time Bomb, Challenges of
Capacity Development in Asbestos Management**

Abstract: Asbestos, once valued for its heat resistance and durability, has become a global public health and environmental challenge due to its proven carcinogenicity and persistence in the environment. Recognized as a "slow time bomb," asbestos exposure leads to asbestos-related diseases (ARDs) such as mesothelioma, lung cancer, and asbestosis, with long latency periods and significant social costs. This paper reviews the nature and toxicity of the six asbestos types, their identification and monitoring, and the historical trajectory of Japan's asbestos regulations—from initial occupational safety rules in the 1970s to 1990s to comprehensive bans and legacy management systems in the 2000s to 2020s. Japan's experience, shaped by industrial incidents (the "Kubota Shock") and natural disasters (Great Hanshin-Awaji (1995) and Great East Japan (2011) earthquakes), demonstrates the importance of regulatory evolution, institutional setup, emergency response, and capacity development. The post-disaster recovery works from earthquake illustrate the urgent challenges of asbestos management in debris, emphasizing safe demolition, segregation of asbestos-containing materials (ACMs), protective equipment, and the need for controlled disposal facilities. Despite the 2007 ILO/WHO roadmap for National Programme for the Elimination of Asbestos-Related Diseases (NPEADs), global progress has been limited, with only 14 countries adopting bona fide National Asbestos Profiles (NAPs). Many countries still continue to rely on asbestos, facing regulatory gaps, technical weaknesses, and economic constraints. To close these gaps, capacity development at individual, organizational, institutional, and societal levels is critical. This paper argues that international cooperation for comprehensive capacity development in asbestos management is essential to accelerate global asbestos elimination and safeguard future generations.

Dr. Mitsuo Yoshida was acquired his doctorate degree from the Graduate School of Science, Hokkaido University, Sapporo in 1982. He has worked for Japan International Cooperation Agency (JICA) since 1992, and current position is the Senior Advisor of JICA, mainly working for environmental management and waste management projects over the world. He was the visiting professor (Environmental Science and Technology) of the Graduate School of Science and Engineering, Tokyo Institute of Technology from 2008 to 2012, and visiting professor (International Environmental Studies) of the Graduate School of Frontier Science, The University of Tokyo from 2012 to 2017. He is also the Director and CEO of the International Network for Environmental and Humanitarian Cooperation (iNehc), Nonprofit Inc., Tokyo, since 2017.



Invited Speech (UTC+9)

Invited Speech II**11:30~11:55****November 9, 2025 (Sun.)****3F: Room 2 (第2講義室)****Shiiki Hall, Kyushu University (Ito Campus)****Prof. Kei Nakagawa****Institute of Integrated Science and Technology, Nagasaki University, Japan**

Speech Title: Coprostanol Adsorption in Soil Column Experiments: Implications for Groundwater Contamination

Abstract: Coprostanol, an indicator of fecal contamination by humans and livestock, is often detected in groundwater. Coprostanol has also been proposed for use in identifying the sources of nitrate-nitrogen contamination in groundwater. However, their concentrations differed significantly between groundwater and river water, possibly because of their adsorption in riverbed and riverbank sediments. Although the adsorption characteristics of coprostanol on sand, soil, and sediments have been demonstrated in laboratory experiments, the reaction and transport characteristics of coprostanol during its flow from rivers to groundwater have not been clarified. Therefore, in this study, column experiments were conducted to determine how coprostanol is adsorbed during its flow through the soil. In the experiment, the coprostanol solution was passed through the column for a specified time, the column was disassembled, and the coprostanol adsorbed on the solid phase was eluted every 1 cm and analyzed to determine its distribution in the column. The results revealed strong adsorption near the top of the column. The distribution coefficients obtained from the adsorption experiments were used to predict the concentration distribution in the liquid phase.

Kei Nakagawa is a Professor of Environmental Groundwater Science with 30 years of research experience. He was first appointed as an Assistant Professor in Soil Science of the Department of Agricultural Chemistry in 1999 at Kyushu University and was promoted to Associate Professor in Water Use Engineering of the Department of Agricultural Engineering in 2002 at Kagoshima University. In April 2011, he was appointed Full Professor of Graduate School of Fisheries and Environmental Sciences of Nagasaki University. His main fields of research interest include reactive transport in groundwater, physical and chemical hydrogeology and heterogeneity, saltwater intrusion and performance evaluation of subsurface dams in coastal aquifers, groundwater modeling, and remediation of contaminated soils and groundwater (phytoremediation and electro-kinetic remediation of heavy metal-contaminated soils). Since being appointment at Nagasaki University in 2011, his main research topic has been nitrate pollution resulting from agricultural activities.



Invited Speech (UTC+9)

Invited Speech III

13:00~13:25

November 9, 2025 (Sun.)

3F: Room 1 (第 1 講義室)

Shiiki Hall, Kyushu University (Ito Campus)



Prof. Jitendra Sangwai
Indian Institute of Technology, Madras, India

Speech Title: Environmentally Sustainable Large Scale CO₂ Sequestration in Ocean for Sustainable Energy Transition

Abstract: Energy transition will not be abrupt but slow till we find sustainable energy resources for the mankind. In view of increasing global warming and CO₂ emissions, immediate actions are required to address these issues, which may involve storing large amounts of anthropogenic CO₂ in geological and oceanic repositories. In terrestrial storage sites, CO₂ tends to rise due to the underground temperature profile. Therefore, if the reservoir is not properly sealed, stored CO₂ can escape from geological formations. On the other hand, oceanic sequestration holds great potential for long-term CO₂ storage beneath the seabed, supporting the broader scientific and industrial community in achieving carbon neutrality. Subsea CO₂ sequestration holds significant promise for ensuring stable, long-term CO₂ storage and, consequently, can make a substantial contribution to achieving global carbon neutrality and mitigating the challenges of global warming. However, several key factors at the macroscopic level, including salinity, sediment porosity, sedimentary types, and the use of additives, are essential in realizing the full potential of subsea CO₂ sequestration. A deeper understanding of the chemical interactions among CO₂, hydrate-bearing sediments, additives, and marine environments is crucial for comprehending hydrate formation within subsea sediments. These dimensions offer a vast landscape for discussion, paving the way for future technological innovations. Consequently, there exists a broad scope for discourse in this field that will drive the development of novel technologies in the years to come.

Dr. Jitendra S. Sangwai is currently working as a full Professor at the Department of Chemical Engineering, Indian Institute of Technology Madras. He did his Ph.D. in chemical engineering with Professor Santosh K Gupta at IIT Kanpur and M.Tech. in chemical engineering with Prof. Sirshendu De from IIT Kharagpur. Dr. Sangwai worked with Schlumberger, an oil and gas multi-national company, for a brief period before moving to academia. Dr. Sangwai's research interest lies mainly in the field of carbon capture and sequestration (CCS), gas hydrates, upstream oil and gas engineering, etc. He has published approximately 190 peer-reviewed international journal papers and 100 conference publications. He has h-index of 53 and citations nearing ~ 9500. Dr. Sangwai has filed 20 Indian patents and 18 international patents. He has graduated 25 PhD degree students, most of whom are working as faculty in IITs, and Institute of National Importance.

Dr Sangwai has been recognized with various awards. The Government of India awarded him the National Geoscience Award for outstanding research contributions in oil, natural gas, and gas hydrates, as well as two National Awards for the Technology Innovation. He has also received the Society of Petroleum Engineers' Distinguished Achievement Award for the Petroleum Engineering Faculty of the South Asia and Pacific region and Regional Service Award. IIT Madras bestowed him with the Young Faculty Recognition Award for excellence in teaching and research, the Institute Research and Development Awards (both at Early- and Mid-Career level), and the Shri. J. C. Bose Patent Award. Intellectual Ventures awarded him with six invention awards. He has been recognized as Top 3% Highly Cited American Chemical Society (ACS) Authors from India, ACS's Energy & Fuels Recognition to Most Cited Articles, and Top 1% Highly Cited Author of the Industrial and Engineering Chemistry Research. ACS journal, Journal of Chemical and Engineering Data, has highlighted him as one among 25 Emerging Investigators' on the journal's cover page and in the Editorial of the issue. Dr Sangwai also serves as an Associate Editor of the prestigious journal, Energy & Fuels, published by the American Chemical Society. He is also a Fellow of Indian National Academy of Engineering (FNAE).

Invited Speech (UTC+9)

Invited Speech IV (Online)

9:00~9:25

November 10, 2025 (Mon)

Zoom ID: [841 4345 9384](#)



Dr. Bharat Manna
The University of Auckland, New Zealand

Speech Title: Harnessing Microbial Redox Responses to Enhance Resource Recovery, Micropollutant Degradation, and Resistance Control in Wastewater Treatment

Abstract: Microbial communities in wastewater treatment systems play a pivotal role in environmental sustainability and public health, largely through their redox-driven metabolism. Our research explores how strategic manipulation of microbial oxidative stress responses can address interconnected global challenges: climate warming, wastewater resource recovery, micropollutant degradation, and antimicrobial resistance. We demonstrate that oxidative stress induced by climate-related warming promotes harmful cyanobacterial blooms and enriches antibiotic resistance genes (ARGs), underscoring a critical link between environmental change and public health risk. Within activated sludge systems, strategic oxygen perturbations have been employed to redirect microbial metabolism toward the production of valuable biochemicals such as fatty acids and amino acids, enhancing the potential for sustainable resource recovery. Multi-omics analyses further reveal that oxidative stress conditions facilitate the co-metabolic degradation of structurally diverse organic micropollutants, supporting a predictive framework that links pollutant structures to microbial enzymatic pathways. At the same time, our findings highlight a paradox within conventional treatment systems: while overall ARG loads are reduced, persistent oxidative stress can promote ARG enrichment and de novo emergence via mechanisms involving DNA damage repair, efflux pump activation, and metabolic reprogramming. Together, this body of work demonstrates the potential of microbial redox manipulation as a holistic strategy for advancing wastewater treatment. By integrating climate resilience, enhanced resource recovery, contaminant removal, and resistance control, it provides a blueprint for more sustainable and health-protective environmental biotechnologies.

Dr. Bharat Manna earned his Ph.D. in Computational Biology from the Indian Institute of Technology Kharagpur in 2021. Currently a Research Fellow in the Department of Civil and Environmental Engineering at the University of Auckland, New Zealand, he has published 24 peer-reviewed articles with an h-index of 12. His research applies environmental biotechnology to optimize biological nutrient removal systems, focusing on resource recovery while investigating antimicrobial resistance development and pathogen proliferation. Dr. Manna specializes in developing microbial redox-manipulation strategies that enhance nutrient removal and micropollutant degradation while reducing greenhouse gas emissions. His work integrates experimental biotechnology with multi-omics approaches and advanced bioinformatics to address urgent challenges in sustainable wastewater treatment, climate resilience, and antimicrobial resistance evolution.

Invited Speech (UTC+9)

Invited Speech V (Online)**9:25~9:50****November 10, 2025 (Mon)**Zoom ID: [841 4345 9384](#)

Dr. Ramkiran B
SASTRA Deemed University, India

Speech Title: Hybrid Cooling Strategy for Enhancing Photovoltaic Panel Efficiency in High-Temperature Environments

Abstract: Photovoltaic (PV) panels often suffer from reduced efficiency due to elevated surface temperatures, especially in regions with intense and prolonged sunlight. To address this issue, a hybrid cooling system combining Phase Change Materials (PCMs) and an automated water spray mechanism was developed and tested. The goal was to maintain the PV panels at a more stable and optimal operating temperature, thereby improving their energy output and lifespan.

The passive cooling component of the system uses PCM, specifically wax-based material, which is placed in pouches behind the PV panels. These materials absorb excess heat during peak solar hours by changing from solid to liquid, helping to reduce and stabilize the panel temperature. This effect slows down the temperature rise during the day and delays efficiency loss.

In addition to passive cooling, an active cooling method was incorporated using a water spray system. This system is controlled by temperature sensors and activates when the panel temperature exceeds a predetermined threshold. The sprayed water lowers the surface temperature through evaporative cooling, providing rapid relief from overheating during critical periods.

Performance tests were conducted under three different conditions: without cooling, with PCM only, and using both PCM and water spray. Results showed that the hybrid system achieved the best results, with improved power output and lower operating temperatures compared to the other setups. This combination proved effective in reducing thermal stress and could contribute to a longer lifespan for the panels.

This study demonstrates that integrating both passive and active cooling techniques can significantly enhance the performance and reliability of solar panels, especially in hot climates. It offers a practical and environmentally responsible solution for improving the efficiency of solar energy systems.

Dr. B. Ramkiran is an Assistant Professor in the Department of Electrical and Electronics Engineering at SASTRA Deemed to be University, Thanjavur, India, where he has been serving since 2012. He holds a Ph.D. in Renewable Energy from SASTRA University, an M.Tech in Energy from Maulana Azad National Institute of Technology (NIT Bhopal), and a B.Tech in Electrical and Electronics Engineering from SASTRA University.

His primary research interests include renewable energy systems, solar energy conversion, sustainable energy technologies, energy conservation, desalination, biofuels, and robotics. He has guided over 25 undergraduate projects and authored more than 20 publications in reputed national and international journals and conferences. Dr. Ramkiran has received several accolades including the Best Paper Award (2012), Best Reviewer Award (2021, JEET), and certification as an Energy Manager by the Bureau of Energy Efficiency, Government of India.

Dr. Ramkiran actively contributes to the global research community as a reviewer for more than 25 SCI and Scopus-indexed journals, and serves on editorial and program committees of multiple international conferences. He has also chaired technical sessions at major global conferences including AIC 2022, CIS 2024, and SCIS 2024. His dedication to fostering sustainable development and academic excellence is reflected in his continued efforts to collaborate internationally and promote innovation in green energy technologies.

Poster Session (UTC+9)

November 9, 2025 (Sun.) 13:00~15:15

2F: North Foyer (北ホワイエ)

Environmental Pollution Monitoring, Assessment and Remediation

Chairman: Dr. Mitsuo Yoshida, Global Environment Department, Japan International Cooperation Agency (JICA), Tokyo, Japan

*Note: Please mount your poster on the whiteboard according to the number assigned to your paper ID.

#01 CE045-A	Risk Assessment of Dermal Exposure to Hazardous Chemicals by Chemical Accidents JiYoon Chung, Seokyeong University, Republic of Korea
#02 CE101-A	In-Situ Slow-Release Chemical Oxidation of Unsaturated Zone Soils Contaminated with Residual Chlorinated Organics to Mitigate Long-Term Groundwater Pollution Potential Chi-Wei Wang, Da-Yeh University, Taiwan
#03 CE060-A	Ontology-Guided Screening of Allergenic Triggers in PM2.5 Chemical Composition ShinYoung Park, Seokyeong University, Republic of Korea
#04 CE061-A	Study on application of the risk assessment based on personal location for exposure to hazardous chemical by chemical accident Si-Hyun Park, Seokyeong University, Republic of Korea
#05 CE063-A	The Occupational Exposure to Hazardous Air Pollutants and its Ontological Interpretation: Bridging Domains with Allergic Diseases Hyeok Jang, Seokyeong University, Republic of Korea
#06 CE199-A	Multi-Site PSCF Analysis of Airborne Heavy Metals in Busan, 2024 JoonHyeog Kim, Busan Institute of Health and Environment, South Korea
#07 CE067-A	Statistical Comparison of Acute Endpoint Concentration: Focusing on ERPG, AEGL, and IDLH Ji-Eun Moon, Seokyeong University, Republic of Korea
#08 CE068-A	Health Risk Assessment of VOC Emissions from New Vehicles under Different Driving Modes: Acute and Chronic Exposure Evaluation Young-Hyun Kim, Seokyeong University, Republic of Korea
#09 CE082-A	Determinants of Indoor PM2.5 Concentrations in Residential Environments: A Mixed-Effects Modeling Approach in the Seoul Urban Area Joong Bo Kwon, Seokyeong University, Republic of Korea
#10 CE089-A	Environmental Ontology Class analysis SeokGyu Yun, Seokyeong University, Republic of Korea
#11 CE094-A	Personal Exposure Characteristics and Health Risk Assessment of PM2.5 : A Case Study in Seoul, Korea Jae-Won Choi, Seokyeong University, Republic of Korea
#12 CE221	Integrating Perceptions in the Risk Assessment of a Community-led Mercury-Free Gold Processing Plant in Davao de Oro, Philippines Melanie M. Garcia, College of Health Sciences, Mapúa Malayan Colleges Mindanao; Philippine School of Agriculture and Environment, University of the Philippines Los Baños, Philippines



Oral Session 1 (UTC+9)

November 9, 2025 (Sun.) 13:00~15:10

3F: Room 1 (第 1 講義室)

Carbon Capture, Carbon Storage, and Carbon Management

Chairman: Asst. Prof. Yaowatat boongla, Thammasat University, Thailand

Invited Speech
(CE1023-A)
13:00~13:25

Environmentally Sustainable Large Scale CO₂ Sequestration in Ocean for Sustainable Energy Transition

Prof. Jitendra Sangwai, Indian Institute of Technology, Madras, India

CE071-A
13:25~13:40

Designing a Hydrostable Nickel-Based MOF for Carbon Capture: An Integrated Experimental and DFT Approach

Diksha Praveen Pathak, Indian Institute of Technology, Madras, India

CE171
13:40~13:55

Carbon sequestration potential of rubber-trees plantation in Surin province, Thailand

Yaowatat boongla, Thammasat University, Thailand

CE155-A
13:55~14:10

Enhanced Mineral Carbonation through the Synergistic Combination of Biochar and Clay Minerals

Won-Gune Jeong, Jeonbuk National University, Republic of Korea

CE720
14:10~14:25

Exploring Carbon Sequestration at the National Museum of Natural Science: Sustainability in Nature-Based Educational Landscapes

Jen-Chih Chao, Chaoyang University of Technology, Taiwan

CE075-A
14:25~14:40

Sustainable and energy efficient CO₂ Capture Using Bio-inspired Nanofluid Engineering

Yogendra Kumar, Indian Institute of Technology, Madras, India

CE080
14:40~14:55

Carbon Footprint of Dairy Products in the USA and India: A Comparative Hybrid Life Cycle Assessment

Nuri Cihat Onat, Qatar University, Qatar

CE222
14:55~15:10

Blue Carbon and the Role of mangroves in carbon sequestration: Estimating by Geographic Information System

Narakate Pabao, Thammasat University, Thailand



Oral Session 2 (UTC+9)

November 9, 2025 (Sun.) 13:00~15:15

3F: Room 2 (第 2 講義室)

Environmental Fate, Risk Assessment, and Sustainable Control of New Pollutants

Chairman: Asst. Prof. Ramon Francisco Q. Padilla, Mindanao State University at Naawan, Philippines

CE145-A
13:00~13:15

Dioxins Formation during Soil Remediation by H₂O₂
Wenjing Xie, Jiangnan university, China

CE053-A
13:15~13:30

Potential Environmental Risk of Nanoplastics from Burned Polypropylene in Water

Hansang Lee, Gwangju Institute of Science and Technology, Republic of Korea

CE073-A
13:30~13:45

Spatial distribution and age estimation of microplastics collected from rivers, sea, and beaches in Shizuoka

Tetsuya Takikawa, University of Shizuoka, Japan

CE1004-A
13:45~14:00

Polycyclic aromatic hydrocarbons in sediments and benthic crustaceans: linking sources, risks, and ecological niches in Kaohsiung Harbor

Genese Divine B. Cayabo, National Kaohsiung University of Science and Technology, Taiwan

CE146-A
14:00~14:15

First report on identifying organic light-emitting materials (OLEMs) and liquid crystal monomers (LCMs) in soil from the Three Polar Regions

Yanfen Hao, Jiangnan University, China

CE121
14:15~14:30

Landscape Function Analysis of Rehabilitated Mined Sites in Claver, Surigao Del Norte, Philippines

Ramon Francisco Q. Padilla, Mindanao State University at Naawan, Philippines

CE147-A
14:30~14:45

Screening of environmental new pollutants with potential to induce COPD-like phenotypes

Yong Liang, Jiangnan University, China

CE065-A
14:45~15:00

Nanoplastics Release from Polystyrene Foam Containers

Seonho Lee, Gwangju Institute of Science and Technology, Republic of Korea

CE154
15:00~15:15

Development and implementation of customized vehicle mounted high-pressure mist-spray system to reduce exhaust and non-exhaust vehicular emissions on public roads of Delhi

Aditya Kumar Patra, Indian Institute of Technology Kharagpur, India


Oral Session 3 (UTC+9)

November 9, 2025 (Sun.) 13:00~15:15

3F: Room 3 (第3講義室)

Waste Management, Resource Recycling, and Circular Economy

Chairman: Asst. Prof. Lester P. Acoba, National University, Philippines

CE012 13:00~13:15	The Relationship of Adherence to Polluter Pays Principle and Equity of the Philippine Polymer Waste Management Program Lester P. Acoba, National University, Philippines
CE088-A 13:15~13:30	Comparative Life Cycle Assessment of Sago and Cassava Based Bioplastics with Fossil-based HDPE Carrier Bags in Indonesia Ida Bagus Gede Sutawijaya, Wageningen University and Research, The Netherlands
CE029-A 13:30~13:45	Applications of resource recycling in the semiconductor industry: the case of waste H₂SO₄ recovery Minh Man Trinh and Chun-Nan Kuo, Green Energy and Environment Research Laboratories, Industrial Technical Research Institute, Taiwan
CE099 13:45~14:00	A Pilot Study to Explore the Association between Circular Business Models and Circular Design Strategies Pi-Jui Lin, Department of Design, Taiwan Tech, Taiwan
CE111-A 14:00~14:15	Lithium Migration and Recovery from Coal Ash: Insights from the Shanxi Formation No. 21 Coal, North China Duoan Yuan, China University of Geosciences, China
CE066 14:15~14:30	Integrating Hazardous Waste and Biochar for Green Energy Production: Advancing the Circular Economy Archina Buthiyappan, Universiti Malaya, Malaysia
CE149 14:30~14:45	Faith and Waste: Exploring Determinant Factors in Liquid Waste Management in the Indonesian Textile Industry Ahmad Rosyid, UIN K.H. Abdurrahman Wahid Pekalongan, Indonesia
CE140 14:45~15:00	Exploring the Advancements of Microbially Induced Calcite Precipitation in Enhancing the Properties of Recycled Aggregates Mohammed H. H. Alzard, Institute of Sustainable Building Materials and Engineering Systems, Riga Technical University, Riga, Latvia
CE220 15:00~15:15	Enhancing Circular Economy of Riverine Waste Management: Case Study of Chao Phraya River Abdul Shobar, Chulalongkorn University, Thailand



Oral Session 4 (UTC+9)

November 9, 2025 (Sun.) 13:00~15:15

3F: Room 4 (第 4 講義室)

Green Infrastructure and Urban Sustainable Planning

Chairman: Assoc. Prof. Chia-Hui Wang, National Taipei University, Taiwan

CE097 13:00~13:15	Promoting Sustainable Campus Interiors through Universal Design: A Case Study of Asia University in Taiwan Cheng-Kai Weng, Asia University, Taiwan
CE115-A 13:15~13:30	LCA-Based Planning Tool for Sustainable Urban and Building Surface Renovation to Mitigate Flood, Drought, and Heat Junhee Woo, Sungkyunkwan university, South Korea
CE093 13:30~13:45	Promoting Sustainable City Through Cultural Heritage Building: Rectifying the Regulatory Frameworks in Yogyakarta Antari Innaka Turingsih, Audiza Nadella, and Falisha Awidiya Purwana, 1.3. Universitas Gadjah Mada, Indonesia 2. Institut Teknologi Bandung, Indonesia
CE131 13:45~14:00	Advancing Sustainable Urban Mobility: Developing and Validating Built Environment Indicators for Walkability: Evidence from Taiwan Chia-Hui Wang, National Taipei University, Taiwan
CE197 14:00~14:15	Investigation on the Effect of Street Tree in PM2.5 Reduction, The case of Samut Prakan Municipality, Thailand Kamolrat Smankasivit, Thammasat University & Asian Institute of Technology, Thailand
CE190-A 14:15~14:30	Urban Morphology Meets Greening: LCZ and 3D Data Approaches to Potted Plant Distribution in Chiayi City, Taiwan Yu-Cheng Chen, Nanhua University, Taiwan
CE204 14:30~14:45	The Mechanisms of Inclusive Green Growth in Cities: Evidence from the Policy Effects of China's Low-Carbon Pilot Program Shuang Kan, Northeastern University, China
CE144-A 14:45~15:00	Student Perspectives on Campus Green Space: Awareness, Usage, and Effectiveness Across Ghanaian Universities Ocloo Daniel Mawuko, University of Tsukuba, Japan
CE159-A 15:00~15:15	Identifying Strategic Service Sectors for Inclusive and Green Development in Indonesia: Miyazawa Input–Output Analysis Muhammad Handry Imansyah, Lambung Mangkurat University, Indonesia



Oral Session 5 (UTC+9)

November 9, 2025 (Sun.) 13:00~15:15

3F: Room 5 (第5講義室)

Climate Change Impacts and Adaptive Management

Chairman: Prof. Akhmad Fauzi, IPB University, Indonesia

CE092-A
13:00~13:15

Climate Change Vulnerability in Indonesian Island Provinces: A Regional Vulnerability to Climate Change Index (RVCCI) Assessment

Akhmad Fauzi, IPB University, IndonesiaCE085-A
13:15~13:30

A cross-seasonal prediction of summer temperatures in the Yangtze River Basin with time scale separation

Yawei Yang, Shanghai Climate Center, ChinaCE712
13:30~13:45

Impact of California and RGGI's ETS Policies on Carbon Emissions Reduction

Zhuohong Shen, University of Southern California, USACE107-A
13:45~14:00

Combating Climate Change for Sustainable Food Security in Africa and Asia: Role of Climate Finance, Climate Policies, Adaptive Capacity, and Governance

Biswanath Behera, National Institute of Technology Rourkela, IndiaCE112
14:00~14:15

Statistical Assessment of Climate Change Influence on Typhoon-Generated Wave Extremes in Western Taiwan

Hsing-Yu Wang, National Kaohsiung University of Science and Technology, TaiwanCE117
14:15~14:30

Reimagining Rainfall-Induced Slope Failures in a Changing Climate: A Review of Challenges and Innovation Strategies

Lester G. Padilla, Ateneo de Davao University, PhilippinesCE150
14:30~14:45

The Economic Impact of Land Reclamation Projects on Local Sea-Level Rise of the Philippines

Dianna Yzabelle Borbe Alba, Samantha Claire Angeles Caseñas, Mark Anthony P. Rogelio, and Raphael Juan Faustino L. Winpeco, De La Salle University Manila, PhilippinesCE098
14:45~15:00

A Coral Reef Resilience Index for Adaptive Management in West Sumatera: Integrating Composite Indexing and Grey Relational Analysis

Nur Jasilah, Tika Drastiana, Ade Irmalia Harifa, IPB University, IndonesiaCE707-A
15:00~15:15

Climate Change Exposure at Firms and Top Executive Turnover

Dmitriy Chulkov, Indiana University Kokomo, United States

Oral Session 6 (UTC+9)

November 9, 2025 (Sun.) 15:30~18:00

3F: Room 1 (第 1 講義室)

Ecosystems and Biodiversity

Chairman: Prof. Dan Johnson, University of Lethbridge, Canada

- | | |
|------------------------|---|
| CE078
15:30~15:45 | <p>Asset Valuation of Seagrass Blue Carbon Ecosystem in South Bungku Islands, Morowali Regency, Central Sulawesi: Toward Achieving Sustainable Development Goals</p> <p>Holiludin and Marselius F. Talahatu, IPB University, Indonesia</p> |
| CE167
15:45~16:00 | <p>Improving mangrove height and above-ground biomass estimates in small island developing states using multi-sensor satellite data: Case study of Mauritius</p> <p>Brian Alan Johnson, Institute for Global Environmental Strategies, Japan</p> |
| CE125
16:00~16:15 | <p>Coral Reef Health and Associated Faunal Diversity in Selected Municipalities in Zamboanga Sibugay, Philippines</p> <p>Anabelle Dece A. Espadero, Mindanao State University at Naawan, Philippines</p> |
| CE083
16:15~16:30 | <p>Prediction of Tourism Village Classification and Coral Reef Ecosystem Performance in the Nusa Penida Marine Protected Area, Bali Using Orange Data Mining</p> <p>Rizka Dzulfikar and Sri Pratiwi Saraswati Dewi, IPB University, Indonesia</p> |
| CE166-A
16:30~16:45 | <p>Biodiversity, restoration, conservation, and joint sustainability of agriculture and wildlife food webs: estimation of available food and energy for birds on grazing land in Alberta, Canada.</p> <p>Dan Johnson, University of Lethbridge, Canada</p> |
| CE095-A
16:45~17:00 | <p>A conceptual framework to manage Ecosystem Service Trade-offs in a Telecoupled World</p> <p>Solen Le Clec'h, Wageningen University, Earth Systems and Global Change, The Netherlands</p> |
| CE086
17:00~17:15 | <p>Re-evaluating Marine Protected Area Effectiveness in Indonesia: A PROMETHEE Approach</p> <p>Muhammad Ismail Sakaruddin and Rusdatus Sholihah, IPB University, Indonesia</p> |
| CE126
17:15~17:30 | <p>Seagrass Communities in Zamboanga Sibugay, Philippines: Implications to Resource Management</p> <p>Lovella R. Calala, Mindanao State University at Naawan, Philippines</p> |
| CE158
17:30~17:45 | <p>Interactive Toxicity Effects of Selected Amines used in CO₂ Capture Process: Impacts on Freshwater Microalgae</p> <p>N. C. Gupta, GGS Indraprastha University Delhi, India, India</p> |
| CE109-A
17:45~18:00 | <p>Phyto-remedial evaluation of Cannabis sativa L and selected vegetables Using Constructed Wetland</p> <p>Zinhle Gugulethu Marrengane, Vaal University of Technology, South Africa</p> |



Oral Session 7 (UTC+9)

November 9, 2025 (Sun.) 15:30~17:45

3F: Room 2 (第 2 講義室)

Wastewater Treatment and Water Resource Management

Chairman: Prof. Kei Nakagawa, Nagasaki University, Japan

CE044
15:30~15:45

The Precipitation Variability in the US Semiarid Southwest Region: Implications for Low-Impact Development Strategies

Chin-Hsien Liao, Chinese Culture University, Taiwan

CE050
15:45~16:00

GIS-Based Hydrological Modelling and Hybrid Watershed Management Strategies for the Semi-Urban West Kupang Watershed, East Nusa Tenggara Province, Indonesia

Reza Trihartanto Sasmito, Maria Shanta Villi Shandra Fernandez, and Nikita Pili Roboh, The University of New South Wales, Australia

CE014-A
16:00~16:15

Stable Anammox Pathway in a Pure Floc Sludge A2/O Reactor Treating Low COD/N Municipal Wastewater

Yang Zhao, Beijing University of Technology, China

CE074-A
16:15~16:30

Evaluating Floodwater Storage Function of Unmanaged Spaces within Alluvial Plain along the Shin-Tone River, Japan

Mony Rith So, Tokyo City University, Japan

CE119
16:30~16:45

Dissolved Oxygen Influences on Sludge Settleability: Mediating Role of the Volatile-to-Total Suspended Solids Ratio

Gregor Posadas, Boise State University, USA

CE056-A
16:45~17:00

Novel ferromagnetic CuFe₂O₄/Cu as a highly active catalyst for microwave-Fenton-like reaction

Yejin Nam, Gwangju Institute of Science and Technology, Republic of Korea

CE194
17:00~17:15

Evaluation of trophic state and validation of threshold amount of nutrients in small-scale reservoir

Rozalia Fransisca, Khon Kaen University, Thailand

CE015-A
17:15~17:30

Multi-omics Analysis of Hydroxylamine-Enhanced Nitrogen Removal in Pilot-Scale Anaerobic/Aerobic/Anoxic System

You Wu, Beijing University of Technology, China

CE218
17:30~17:45

Physicochemical Assessment of Sumlog River in Davao Oriental, Philippines: Implications for Tropical Riverine Ecosystem Water Quality

Melanie M. Garcia, College of Health Sciences, Mapúa Malayan Colleges Mindanao; Philippine School of Agriculture and Environment, University of the Philippines Los Baños, Philippines


Oral Session 8 (UTC+9)

November 9, 2025 (Sun.) 15:30~18:00

3F: Room 3 (第3講義室)

Social Behaviors and Policies for Sustainable Development

Chairman: Asst. Prof. Luis Carlos Mabaquiao, University of the Philippines, Philippines

CE027 15:30~15:45	An Initial Investigation into the Emotional Well-Being of Mualaf Toward Advancing Sustainable Development Suhaili Arifin, Universiti Malaysia Terengganu, Malaysia
CE705-A 15:45~16:00	Effects of Tax Policies on Environmental Quality and Income Distribution Wei-Neng Wang, National Taichung University of Science and Technology, Taiwan
CE064 16:00~16:15	Encouraging Youth Action for SDGs by Enhancing Self-Efficacy: Insights from a Study Tour in Thailand Junko Mimaki, Meiji University, Japan
CE091 16:15~16:30	Kinetic Rebalancing and Algebraic Justice: Customary Land Governance in a Rural Settlement of Afghanistan Ezatullah Khaleqiar, Toyohashi University of Technology, Japan
CE127 16:30~16:45	Determinants of Willingness to Participate in Antibiotic Resistance Management: Evidence from a Preliminary Survey in Northern Jakarta, Indonesia Evi Siti Sofiyah, Universitas Pertamina, Indonesia
CE136 16:45~17:00	An Operational Framework for a Hybrid Tide Gauge and GNSS-IR Coastal Monitoring Network for Disaster Mitigation in the Philippines Luis Carlos Mabaquiao, University of the Philippines, Philippines
CE090-A 17:00~17:15	Enhancing Resource Efficiency and Sustainability in Tropical Agricultural System through Intercropping with Cash and Parental Crops Aritta Suwarno, Wageningen University and Research, The Netherlands
CE026-A 17:15~17:30	Data-driven robust menu planning for food services: Reducing food waste by using leftovers Marloes Remijnse, Eindhoven University of Technology, The Netherlands
CE084 17:30~17:45	Assessing Indonesia's Green Building Policies and Regulations: Notes and Criticisms Muhammad Jibril and Keyza Zefanya Audirasandi, Universitas Gadjah Mada, Indonesia
CE108-A 17:45~18:00	Phytoremediation of selected metals using a vegetable-based bench top constructed wetland Sekomeng Johannes Modise, Vaal University of Technology, South Africa



Oral Session 9 (UTC+9)

November 9, 2025 (Sun.) 15:30~18:00

3F: Room 4 (第 4 講義室)

Sustainable Energy Transition: Policies, Technologies, and Economic Resilience

Chairman: Assoc. Prof. Chatchai Khiewngamdee, Chiang Mai University, Thailand

CE102-A 15:30~15:45	Energy Poverty in the Age of Green Energy Transition: Canvassing Its Severity and Local Government Responses – Empirical Evidence from U.S. Cities Angela YS Park and Marc MK Kim, Hanyang University, South Korea
CE018 15:45~16:00	Does Energy Diversification Promote Economic Resilience? Evidence from EU countries Chatchai Khiewngamdee, Chiang Mai University, Thailand
CE730-A 16:00~16:15	Empirical Assessment of the Impact of Carbon Pricing Mechanism: Global Evidence Hongyan Li, National University of Singapore, Singapore
CE118-A 16:15~16:30	Cost-Effective Community Self-Sufficient Renewable Energy System for Rural Mountainous Village in Japan Alfonsus Wintang Abhikama, Nagoya University, Japan
CE106-A 16:30~16:45	Synergizing Energy Finance, Financial Development, Government Effectiveness, and Economic Complexity in Balancing Energy Trilemma in Developing Countries Litu Sethi, National Institute of Technology Rourkela, India
CE120 16:45~17:00	A Public Policy-Enhanced Multi-Objective Optimization of Philippine Energy Infrastructure: A 2040 Outlook Joerabell Lourdes Aro, University of the Philippines Diliman, Philippines
CE164-A 17:00~17:15	Past, Present, and Future Research of Taxes on Electricity: A Systematic Literature Review Abrar Bilisanimar, Tax Centre Universitas Indonesia, Indonesia
CE195 17:15~17:30	Investigation of Electricity Generation in Vertical Solar PV Systems: A Case Study at Thammasat University, Rangsit Campus Piraya Yodkaew, Thammasat University, Thailand
CE039 17:30~17:45	Mapping the Research Landscape on Biodegradable Approaches to Mitigating Ghost Fishing: A Bibliometric Study Chia-Hsiang Chen, Marine Fisheries Division, Fisheries Research Institute, MOA, Taiwan
CE219 17:45~18:00	Scope Emissions and Decarbonisation Pathways in Indian Energy Industries Alka Tomar, GGS IP University, New Delhi, India



Oral Session 10 (UTC+9)

November 9, 2025 (Sun.) 15:30~17:15

3F: Room 5 (第 5 講義室)

Corporate Sustainable Governance and ESG Practices

Chairman: Prof. Wanja Wellbrock, Heilbronn University, Germany

CE601
15:30~15:45

Sustainable Sourcing in Corporate Sustainability Reports: A Theoretical Analysis of Procurement Disclosures in German Companies

Wanja Wellbrock, Heilbronn University, Germany

CE709-A
15:45~16:00

ESG Flow Information and Corporate Policy Predictions -----Evidence from Textual Analysis and ChatGPT

Wei Peng, Shanghai International Studies University, China

CE711
16:00~16:15

Varied Characteristics of R&D Expenditure in Environmental and Energy Sectors

Shinano Hayashi, Tokoha University, Japan

CE717-A
16:15~16:30

Does the policy of Environmental Credit Rating promote the high-quality development of enterprises in China? A study based on three-dimensional credit theory

Weili Zhao, Henan university of economics and law, China

CE7004-A
16:30~16:45

Does Public-Private Financing in Green Technology have Dynamic Impacts on the Malaysian Economy?

Fathin Faizah Said, Universiti Kebangsaan Malaysia, Malaysia

CE173
16:45~17:00

Building Sustainability Capacity: Linking Life Cycle Analysis with Community Empowerment in a Preliminary Initiative from Dahana, Subang – Indonesia

Sudirjo Heru, Dahana Corporation, Indonesia

CE172
17:00~17:15

Sustainable Development and Eco-Efficiency in Environmentally Sensitive Areas: Insights from the Baikal Region

Anastasia Nasibulina, East Siberia State University of Technology and Management, Russia



Online Invited Speech & Oral Session (UTC+9)

November 10, 2025 (Mon.) 9:00~11:20

Zoom ID: 841 4345 9384
Environmental Management, Energy Conservation, and Sustainable Development

Chairman: Dr. Bharat Manna, The University of Auckland, New Zealand

Invited Speech IV 9:00~9:25	Harnessing Microbial Redox Responses to Enhance Resource Recovery, Micropollutant Degradation, and Resistance Control in Wastewater Treatment Dr. Bharat Manna, The University of Auckland, New Zealand
Invited Speech V CE1002-A 9:25~9:50	Hybrid Cooling Strategy for Enhancing Photovoltaic Panel Efficiency in High-Temperature Environments Dr. Ramkiran B, SASTRA Deemed University, India
CE059 9:50~10:05	Integrating Ecological Insights: Advancing Environmental Monitoring through Semantic Technologies Md Zahir Ahmed, Southern New Hampshire University, United States
CE041 10:05~10:20	Multi-Dimensional Climate Stress Zoning: A Deep Learning Approach to Ecosystem Vulnerability Prediction in Semi-Arid Landscapes of Northern Australia Nasreen Sultana, Bangladesh University of Engineering and Technology, Dhaka, Bangladesh
CE079 10:20~10:35	The Construction of Climate-Adaptative City: Local Practices Experiences from China Yan Zhou, Institute of Environmental Governance and Data Application, Environmental Development Center of the Ministry of Ecology and Environment of China (MEE), Beijing, China
CE087 10:35~10:50	Size-Segregated Emissions from PET, PS and PVC Thermal Degradation under Gradient Heating Electric Furnace Ngoun Pengsreng, Kanazawa University, Japan
CE192-A 10:50~11:05	From Global Goals to Local Change: How Design Education Powers SDG Localization Elad Persov, Bezalel Academy of Arts and Design, Israel
CE725 11:05~11:20	How Environmental Policies Shape Corporate Strategies for Carbon Reduction: An Institutional perspective Hua Yan, Waseda University, Japan



Delegate List

Cheol-Min Lee	Seokyeong University, Republic of Korea
Changwoo Kim	Gwangju Institute of Science and Technology, Republic of Korea
CHARISSE A. CATIPAY	Nagoya University, Japan
Danny Armeidian	Dahana Corporation, Indonesia
Deng Yuechao	China Academy of Building Research, China
Dewi Kurniaty	Dahana Corporation, Indonesia
Leon dos Santos Catarino	Sungkyunkwan University, South Korea
Maria Shanta Villi Shandra Fernandez	The University of New South Wales, Australia
Mohamad Nur Sodik	Dahana Corporation, Indonesia
Nutchanat Chamchoi	Khon Kaen University, Thailand
Safira Aulia Rinanda	Dahana Corporation, Indonesia
Ting-Yu Li	Department of Design, Taiwan Tech, Taiwan
Tung-Jung Sung	Department of Design, Taiwan Tech, Taiwan
Wahyudi Hidayat	Dahana Corporation, Indonesia
Xiaofeng Wang	Zhejiang Provincial Center for Disease Control and Prevention, China
Xiaoming Lou	Zhejiang Provincial Center for Disease Control and Prevention, China
Zhijian Chen	Zhejiang Provincial Center for Disease Control and Prevention, China
Susheng Wang	Southern University of Science and Technology, China

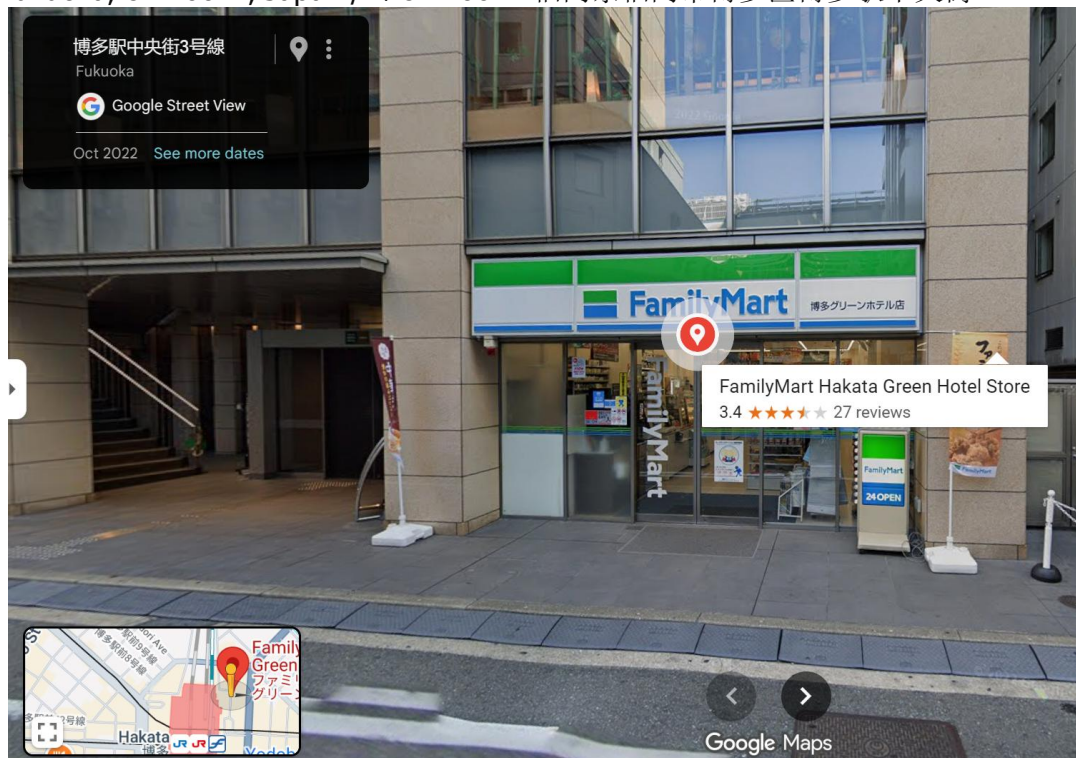


One Day Tour (UTC+9)

November 10, 2025 (Mon.)
One-day Tour

🌳 Fukuoka & Yufuin

📍 Pick-up & Drop-off Location: Hakata Station-Family Mart (4-32 Hakataekichūōgai, Hakata Ward, Fukuoka, 812-0012, Japan / 〒812-0012 福岡県福岡市博多区博多駅中央街 4-32 1階)



08:30	Depart from Hakata Station
09:00~10:00	Ohori Park (大濠公園) & Fukuoka Castle Ruins (福岡城) • Enjoy a scenic stroll around Ohori Park, famous for its beautiful moat and walking paths. • Explore the historic Fukuoka Castle Ruins for panoramic city views and photo opportunities.
10:30~11:30	Dazaifu Tenmangu Shrine (太宰府天満宮) • Visit the shrine for worship. • Explore the traditional Monzenmachi (shrine approach street) for local snacks and souvenirs.
11:30~13:00	Scenic Drive to Yufuin (approx. 1.5 hours).
13:00~14:30	Lunch in Yufuin • Free time for lunch at your own expense.
14:30~17:00	Yufuin Exploration (湯布院) • Stroll through the charming town of Yufuin (Yufuin Floral Village, Hot Spring, Kinrin Lake, etc.). • Browse unique artisan shops, galleries, and enjoy the natural scenery.
17:00~18:30	Return Journey to Hakata Station (approx. 1.5 hours).

Key Points

- ※ Please arrive at Pick-up location by **8:20 AM**.
- ※ Please keep your valuables secure at all times during the tour. The conference organizer is not liable for any loss of personal belongings.
- ※ Itinerary Pace: This tour features a compact schedule designed to cover key attractions. Travel times are approximate and subject to change depending on traffic conditions.
- ※ Lunch & Hot Spring: Lunch and hot spring expenses are Self-paid. You are free to choose a restaurant of your preference in Yufuin.
- ※ If you feel unwell or have a cold, it is advisable to avoid hot spring bathing. Before entering the hot spring, please assess your health condition carefully. Individuals with chronic conditions such as hypertension or heart disease, as well as pregnant women, the elderly, or those with a weaker constitution, should consult a doctor beforehand and take extra care to prevent overheating or dehydration.



Note

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