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CENTRE OF EXCELLENCE ON ENERGY TECHNOLOGY AND ENVIRONMENT



**JGSEE Newsletter**

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## Contribution to International Platform

### Outstanding Papers from SEE2022 Conference Published in Sustainable Production and Consumption Journal



A selection of high-quality papers presented at the 8th International Conference on Sustainable Energy and Environment (SEE 2022), held in Bangkok from November 7th to 9th, 2022, have been published in Sustainable Production and Consumption (SPC), including a dedicated Special Issue. As the official publication of the European Federation of Chemical Engineering: Part E, this prestigious journal features remarkable contributions that explore various aspects of sustainable production and consumption.

The SEE2022 conference, a collaborative effort between the Joint Graduate School of Energy and Environment (JGSEE) at King Mongkut's University of Technology Thonburi (KMUTT), its 5-university consortium partners\*, and Kyoto University, was successfully held in Bangkok. By adopting a hybrid format and hosting ten distinguished keynote speakers, the conference attracted submissions from 130 participants representing 15 different countries. With the theme "The Road to Net-Zero: Energy Transition Challenges and Solutions," several contributors produced exceptional papers of high quality. A total of 5 papers passed rigorous peer review and were subsequently selected for publication in the Q1-ranked SPC journal, with three of them appearing in the Special Issue dedicated to the conference's theme. The topics covered in the selected papers include energy modeling, renewable energy, biorefinery, carbon management and sequestration, and sustainability analysis.

The success of SEE2022 is evident not only in the quantity and quality of papers presented but also in the stringent standards of the journal in which they are published. The SPC holds a remarkable CiteScore of 12.5 and an Impact Factor of 12.1, further emphasizing the caliber of the published papers. Notably, the Special Issue editors include esteemed individuals such as Prof. Shabbir Gheewala from JGSEE/KMUTT, Prof. Tetsuo Tezuka from Kyoto University, and Dr. Noah Kittner from the University of North Carolina at Chapel Hill.

For more information and access to the Special Issue, please visit the following URL: <https://www.sciencedirect.com/journal/sustainable-production-and-consumption/special-issue/107WVCNCRV2>

*\*JGSEE's 5-university consortium members are KMUTT (lead), Chiang Mai University, King Mongkut's University of Technology North Bangkok, Prince of Songkla University, and Sirindhorn International Institute of Technology at Thammasat University.*

## Internal Contribution to Staff Development

### JGSEE Empowers Supporting Staff with DISC Workshop

On 25 August 2023, the Joint Graduate School of Energy and Environment (JGSEE) held a workshop titled "Understanding Yourself and Others with DISC." This engaging event was specially designed for the school's supporting staff and took place at the Chatrium Hotel Riverside Bangkok. The workshop commenced with a warm welcome by Professor Navadol Laosiripojana, the Director of JGSEE. Subsequently, Mr. Chaiwat Siritto, a human resources consultant from KMUTT, took the lead in facilitating various activities focused on the theme of diversity in the workplace. These activities harnessed the DISC model to explore self-understanding, interpersonal insights, and enhanced communication skills. The workshop proved to be highly valuable, providing the staff with practical knowledge and actionable tips that can be readily applied in their professional roles.





## Contribution to Industry

### JGSEE Workshop on Carbon Footprint in the Livestock Industry

The Centre of Municipal Solid Waste Research and Services (WRS) organised a two-day workshop titled "Carbon Footprint: Towards Carbon Neutrality and Net Zero Emission in the Livestock Industry". WRS is a research group operating under the umbrella of the Advanced Greenhouse Gas and Aerosol Research Laboratory (AGAR) at JGSEE. The workshop took place at the Garden Sea View Resort in Pattaya during 23-24 August 2023.

The primary aim of the workshop was to provide capacity-building opportunities for the staff of the Department of Livestock Development. The workshop comprehensively explored various aspects of carbon footprint, including the categorisation and evaluation of the carbon footprint associated with products and organisations, as well as information about the T-VER (Thailand Voluntary Emission Reduction Programme). Contributors to the workshop included Prof. Navadol Laosiripojana, director of JGSEE; Assoc. Prof. Dr. Sirintornthep Towprayoon, advisor to JGSEE; Assoc. Prof. Dr. Amnat Chidthaisong, deputy director of JGSEE; Asst. Prof. Dr. Komsilp Wangyao, member of AGAR, JGSEE; and Dr. Nittaya Cha-un, JGSEE.

This event served as an invaluable platform for knowledge exchange and skill development, contributing to the ongoing efforts to achieve carbon neutrality and reduce emissions within the livestock industry.



### JGSEE Workshop on Greenhouse Gas Emissions and Measurements in Agriculture and Forestry

The Centre for Greenhouse Gas Management (CGM) hosted a two-day workshop entitled "Greenhouse Gas Emissions and Measurements in Agriculture and Forestry" for Siam Kubota staff. CGM is established to serve as a service-provider unit of JGSEE, focusing on environmental and greenhouse gas mitigation. The workshop was held at Kubota Farm in Chonburi Province during 26-27 September 2023. The workshop focused on the provision of necessary knowledge and enhancement of understanding of climate change and its impacts on agriculture from a global to a regional scale, the measurement of greenhouse gas emissions from the agricultural sector, carbon capture and storage in forests and green spaces, greenhouse gas emissions measurement and mitigation in paddy fields, crop fields and forests, and various aspects of carbon credit and T-VER project development. Contributors to the workshop included Assoc. Prof. Dr. Sirintornthep Towprayoon, advisor to JGSEE; Assoc. Prof. Dr. Amnat Chidthaisong, deputy director of JGSEE; and Dr. Nittaya Cha-un, JGSEE.



## Contribution to Knowledge Platform

### Shaping a Sustainable Future: Professor Gheewala's Keynotes in 2023

In 2023, Professor Shabbir H. Gheewala, head of the Life Cycle Sustainability Assessment Laboratory at the Joint Graduate School of Energy and Environment, delivered a series of keynote lectures at international events for knowledge dissemination. These talks covered topics such as carbon neutrality, green economy, and sustainable development. Here is a glimpse of some of his most recent presentations:



#### ♦ Transition to Carbon Neutrality and BCG. How are we doing?

The keynote lecture was delivered on 17 May at the 22nd National Environmental Conference and 12th International Conference on Environmental Engineering, Science and Management in Pattaya, Thailand. The event was organised by the Environmental Engineering Association of Thailand in collaboration with the Joint Graduate School of Energy and Environment and King Mongkut's University of Technology Thonburi.

#### ♦ Sustainable Aviation Fuels (SAF) Sustainability Criteria

The keynote lecture was delivered on 23 May at the Sustainable Aviation Fuel (SAF) Technologies Workshop in Bangkok, Thailand. The workshop was organised by the U.S. Trade and Development Agency (USTDA) and the U.S. Federal Aviation Administration (FAA) as part of the U.S.-Southeast Asia and Pacific Aviation Cooperation Program (SEAP ACP) Workshop Series.

#### ♦ LCA of Biofuels and Bioproducts

The keynote lecture was delivered on 28 May at the SAFE International Conference (SAFE2023) in Chiang Mai, Thailand. The conference was organised by the Asia Pacific Sustainable Agriculture, Food, and Energy (SAFE) Network. It aimed at providing a forum for the exchange and sharing of experiences, and research results on sustainable agriculture, food, energy, and related disciplines.

#### ♦ Towards Carbon Neutrality by Bio and Renewable Energy

The keynote lecture was delivered on 31 August at the 7th ASEAN Bioenergy and Bioeconomy Conference (ABB2023): Sustainable Bioresources for Green Energy and Economy in Bangkok, Thailand. The event was organised by Kasetsart University in collaboration with King Mongkut's University of Technology Thonburi, Chiang Mai University, adiCET and Informa Markets. The main purpose of the conference was to promote the exchange of knowledge on bioenergy and bioeconomy, providing opportunities to update databases, status and situation in ASEAN countries.

#### ♦ Life Cycle Assessment for Energy and Environment. What can the results tell?

The keynote lecture was delivered on 25 September at the 4th International Seminar and Workshop on Public Health Action (ISWOPHA) 2023 in Semarang, Indonesia. The event was organised by Universitas Dian Nuswantoro.

#### ♦ Towards Carbon Neutrality through Renewable Energy

The keynote lecture was delivered on 11 October at the 1st International Conference on Industry Science Technology and Sustainability (IConISTS 2023) in Lampung, Indonesia. The conference was organised by Lampung University. It aimed at providing a forum to explore and discuss the latest advancements in fields that intersect industry, science, technology, and sustainability with a view to addressing the main theme of the conference on innovation for sustainability.

#### ♦ Ecolabels for low carbon development

The keynote lecture was delivered on 15 October at the Inaugural International Society for Energy Transition Studies (ISETS) International Conference in Bangkok, Thailand. The conference was organised by the International Society for Energy Transition Studies (ISETS) and the United Nations Economic and Social Commission for Asia and the Pacific (ESCAP). It aimed at addressing the complexities of energy transitions and their wider connections with economic development and social prosperity in the ASEAN region.

The above keynote talks facilitated valuable discussions and knowledge sharing among experts, highlighting the role of academia, the public and private sectors in shaping a sustainable future. More impactful contributions from Professor Shabbir are anticipated as he continues to inspire and play a prominent role in the field of sustainability and environmental sciences in Thailand and internationally.

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