

JGSEE



Consortium involving five leading institutions

Center of Excellence on Energy Technology and Environment



JGSEE Newsletter

Vol. 35, September - December 2019

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Contribution to International Forum

MOU with the Diponegoro University, Indonesia



On 22 October 2019, Dr R.B. Sularto, Dean of School of Postgraduate Studies (SPS), Diponegoro University (UNDIP), Indonesia and Assoc Prof Dr Suneerat Fukuda, Director of JGSEE-CEE, KMUTT (on behalf of the KMUTT president) signed a Memorandum of Understanding (MOU) for research collaboration between SPS-UNDIP and KMUTT. This MOU aims at promoting educational and academic cooperation between KMUTT and SPS-UNDIP. This cooperation includes exchanges of faculty members, researchers and students.

Visit of ECAM-Lyon, France



On 11 November 2019, Mr Didier Desplanche, Rector of ECAM Lyon, France and Mr Yodsawat Iamjaroenchai from ECAM Lasalle Asia Pacific Co. Ltd, Thailand, visited JGSEE-CEE. ECAM Lyon is a leading engineering school in France that was founded in 1900 and has for mission to link research, education, and innovation in line with shifts in industry and business. It is a school that provides academic programs with strong scientific and technical standards as well as cross disciplinary knowledge. On JGSEE's side, the meeting was attended by Assoc Prof Dr Suneerat Fukuda, director, Assoc Prof Dr Savitri Garivait, chairperson of the Environment Division and Prof Navadol Laosiripojana, chairperson of the Energy Division. The discussions held during this visit aimed at identifying areas of potential collaboration between JGSEE, KMUTT and ECAM-Lyon, including on double degree at post-graduate level and winter training/workshop programs.

International Conference on Sustainable Energy and Green Technology 2019



During 11-14 December 2019, JGSEE-CEE at KMUTT, Thailand in collaboration with the Center of Inter-Integration (CII, NIU), Taiwan, the Centre for Energy Sciences, University of Malaya and the Center for Vehicular Technology (UTAR), Malaysia, the Research Center of Energy Conservation for New Generation of Residential, Commercial and Industrial Sectors (NTUT), Taiwan, and the United Nations Environment Program (UNEP) organised the International Conference on Sustainable Energy and Green Technology 2019 (SEGT 2019) at the Millennium Hilton Bangkok in Thailand. During the opening ceremony, welcome remarks were delivered by Assoc Prof Dr Suneerat Fukuda, Director of JGSEE, Ms Isabelle Louis, Deputy Regional Director and Deputy Regional Representative for Asia and the Pacific of the United Nations Environment Program (UNEP), and Assoc Prof Dr Suvit Tia, President of KMUTT, who also delivered an opening address. Plenary keynote presentations were delivered by Prof Ibrahim Dincer, Ontario Tech University, Canada and Prof Jiří Jaromír Klemes, Brno University of Technology, Czech Republic. Overall 300 papers were presented at SEGT 2019 in parallel sessions that also included 3 special sessions coordinated by the United Nations Environment Programme (UNEP). The event was a great success involving the contribution from over 400 participants worldwide.





DGNB

Deutsche Gesellschaft für Nachhaltiges Bauen
German Sustainable Building Council

DGNB Consultant Training in Thailand!

19th – 21st February 2020

- Venue: The Knowledge Exchange for Innovation Center, Bangkok
- Teaching language and training material: English
- The training is limited to 10 participants



Become an accredited DGNB Consultant and certify sustainable buildings: EGS-plan together with DGNB (German Sustainable Building Council) and JGSEE (The Joint Graduate School for Energy and Environment) are providing a three-day intensive training beginning of 2020.

Date: 19th - 21st February 2020

Venue: The Knowledge Exchange for Innovation Center: KX

Location: <https://goo.gl/maps/KWYSk2memrxABTWP7>

Registration fee:

- Early bird (now till Dec 2019): 23,000 THB
- Regular fee: 27,000 THB

Scan to register

For more information:

- About the training: +662-470-8309 to 10 ext 4130 and 4140 or pro.jgsee@gmail.com
- About DGNB certification: karun.p@egs-bkk.com
- See DGNB Projects in Thailand here: <http://bit.ly/2Q9gxTX>



Contribution to Society

CoE's Roadshow: CoE and Development in Northern Area of Thailand



On 29 August 2019, JGSEE-CEE in collaboration with PERDO and 10 Centers of Excellence (CoEs), including, HSM, PETROMAT, EHT, CEM, AG-BIO, PERCH-CIC, BDC, ThEP, PHTIC and CEMB, organised the seminar and exhibition on “CoE and Development in Northern Area of Thailand”. The event was held at the Empress Hotel in Chiang Mai.

The exhibition was held under the theme “Research Excellence in Applied Area” and was divided into 5 main topics: Sustainable Agriculture, Conserving Environment and Energy, Value-added Industries, STEM Education, and Health. On this occasion, JGSEE presented its research activities under the

PERDO research program on: (1) Efficient Biomass Conversion Technologies for Biofuel and Bioenergy Production (BBB) - Biomass Conversion Technologies to Energy; (2) Development of Integrative Biorefinery Knowledge and Platforms for Efficient Conversion of Lignocellulosic Biomass to Biofuels, Valorised Chemicals and Materials (Biorefinery) - Biomass Conversion to High Value-added Products; (3) Integrated Energy and Environment for Sustainable Green Urban Approach (SUD2) - Water Scarcity & DUSTBOY; and (4) Climate Change Technology and Innovation (CTI) – Assessment of Air pollution.

During the event, JGSEE organised a meeting on “Energy Management and Industrial Development on Production and Tourism in Northern Area”. There were 5 invited speakers, including: 1) Asst Prof Dr Anucha Promwungkwa, Mechanical Engineering, Chiang Mai University; 2) Mr Chantira Chinnakorn, Executive Advisor, Thermal Tech. Engineering Co., Ltd.; 3) Assoc Prof Dr Pipat Chaiwiwatworakul, JGSEE; 4) Mr Rattasiri Wachirapunyanont, Program Manager, Thailand, New Energy Nexus; and 5) Dr Ekkaporn Nawapanan, Research Unit of Energy Economic and Ecological Management, Chiang Mai University. All speakers shared their experiences on renewable energy efficiency in the industry, including related challenges and obstacles. In addition, Assoc Prof Dr Savitri Garivait, Chairperson of JGSEE's Environment Division was invited by CEM as a speaker in the meeting on “Mathematical Innovations and Technologies to Solve Haze Pollution”.

Contribution to Knowledge Platform

Plenary Keynote by Head of LCSAL at ICENIS 2019



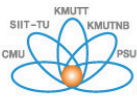
Prof Shabbir H. Gheewala of LCSAL was invited to deliver a plenary keynote on “Biorefineries for Sustainable Food-Fuel-Fibre Production: Towards a Circular Economy” at the 4th International Conference on Energy, Environment, Epidemiology and Information System (ICENIS 2019) in Semarang, Indonesia during 7-8 August 2019. The conference was organised by the School of Postgraduate Studies, Diponegoro University.

TICA Training Course on Low Carbon City Scenario Development and Implementation



JGSEE-CEE at KMUTT was selected by the Thailand International Cooperation Agency (TICA) to host the Training Course on “Low Carbon City Scenario Development and Implementation” during 14 August - 3 September 2019. The training was held at JGSEE and involved 20 participants from OIC, FEALAC and ASEAN countries.

The training course included lectures on: Global Warming and Climate Change: Their Causes and impacts; Low Carbon City; GHG Emission Inventory for Energy & Non-Energy Related Sectors; GHG Emission Projection for BAU and Counter-Measured (CM) Cases; and Strategic planning and implementation. Aside from the lectures during which theoretical knowledge was disseminated, participants shared information about their respective country as part of country report sessions. Many technical visits were also arranged in order to provide trainees with an opportunity to deal with real case-studies and interact with specialised practitioners. This included visits to the Thai Health Promotion Foundation, the Nong Khaem Station of the Bangkok Metropolitan Administration (BMA), the Sub-district of Mae Rang in Lamphun Province and the Chiang Mai Municipality.



JGSEE

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1 February - 28 February 2020



Special Talk by Prof Horst Kreimes, Visiting Professor at JGSEE



On 13 September 2019, JGSEE-CEE invited Prof Horst Kreimes from the University of Applied Sciences, Rosenheim, Germany to deliver a special talk on “Use of Available Biomass for Power and Heat/Chill Demand Coverage in Thailand”. Prof Kreimes is a visiting professor at JGSEE. His research interests are focused on energy technology, including, fluid dynamics and environmental sciences. Besides the talk of Prof Kreimes, another presentation was delivered by Prof Surapong Chirarattananon who is the Head of the Building Energy Science and Technology laboratory (BEST) of JGSEE. The presentation was on “Potential for solar cooling”. Both presentations were attended by students, researchers and lecturers from JGSEE.

Special Talk on Climate Crisis by Dr Kritee



On 3 October 2019, JGSEE-CEE invited Dr Kritee who is a senior scientist in the Global Climate Program at the Environmental Defense Fund in the USA. Her work focuses on the implementation of climate-smart farming at large scales through interactions with governments, policy makers and non-profit organisations,

During her visit at JGSEE she shared her experience by delivering a special talk on “Climate Crisis and Role of Young Generation: A Discussion with Kritee (Kanko)”. The presentation was accompanied by a discussion on the state of the planet, the impacts of the climate crisis on young people and their roles in guiding humanity.

Plenary Keynote by Head of LCSAL at 10th WEEC



On 4 November 2019, Prof Shabbir H. Gheewala was invited by the United Nations Environment Program to deliver a keynote on “Life Cycle Thinking in Environmental Education” at the 10th World Environmental Education Congress (WEEC), BITEC, Bangkok. This is the first time this event was held in Thailand with over 1,800 attendees representing 46 countries from five continents. It was hosted by Kasetsart University along with government, non-government and industrial partners.

Contribution to Research Platform

LCA and Cost Benefit of Energy from MSW in Thailand by DEDE and JGSEE



In 2019, the Department of Alternative Energy Development and Efficiency (DEDE) and the Joint Graduate School of Energy and Environment (JGSEE-CEE), King Mongkut’s University of Technology Thonburi (KMUTT) carried out the project on “Life Cycle Assessment and Cost-benefit Analysis of Energy Production System from Municipal Solid waste in Thailand”. The project aimed at assessing the environmental performance and cost-benefit of energy production from municipal solid waste for different incineration technologies including stoker grate, circulated fluidised bed and gasification using life-cycle approaches. The dissemination seminar conducted on 18 November 2019 at Pathumwan Princess Hotel, Bangkok was attended by more than 100 participants from government, non-government, and academic organisations.

Welcome New Comer

Dr Arnon Setsungnern



In 2018, Dr Arnon Setsungnern earned a PhD degree in Biotechnology on "Removal of Gaseous Benzene by Chlorophytum comosum Combination with LED Light, Bacteria, and Brassinosteroid". The thesis work was supervised by Assoc Prof Dr Paitip Thiravetyan, School of Bioresources and Technology, KMUTT. During his PhD studies, Dr Arnon received a scholarship from the Royal Golden Jubilee Ph.D. Program. He is now a post-doctoral researcher at JGSEE-CEE under the supervision of Assoc Prof Dr Amnat Chidthaisong. He is working on the project entitled "The Impacts of Climate Change on Carbon Exchange, Evapotranspiration, and Methane Emission from Tropical Forest and Agriculture Ecosystems" under the CEE's program on "Climate Change Technology and Innovation (CTI)".

Award

NRCT Award to Dr Kasemsan Manomaiphiboon



JGSEE-CEE is pleased to congratulate Assoc Prof Dr Kasemsan Manomaiphiboon for an annual research award (in the GOOD category) from the National Research Council of Thailand (NRCT). The award in the area of "Political Science and Public Administration" is for the research work titled "The Development of Local Performance Indicators and Minimum Service Standards" (in Thai: การจัดทำเกณฑ์ชี้วัดและค่าเป้าหมายขั้นต่ำสำหรับการจัดการสาธารณะขององค์กรปกครองส่วนท้องถิ่น). Dr Kasemsan's contribution was to manage and carry out the sub-theme on "Natural Resources and Environment" (e.g. green & sustainable city, air/noise/waste pollution, chemicals used in agriculture, forest fires, agricultural burning). The full research project was led by Assoc Prof Dr Weerasak Krueathep of Chulalongkorn University. The award ceremony is expected to be held in early 2020. Key research outputs have been submitted for utilisation to the Office of the Decentralisation to the Local Government Organization Committee, Prime Minister Office (in Thai: สำนักงานคณะกรรมการกระจายอำนาจให้แก่องค์กรปกครองส่วนท้องถิ่น สำนักนายกรัฐมนตรี).

Mr Patikorn Sriphirom Receives Award at AGRICO 2019



During 22-23 August 2019, the International Institute of Knowledge Management, Sri Lanka, organised the 6th International Conference on Agriculture 2019 (AGRICO 2019). JGSEE-CEE is pleased to congratulate Mr Patikorn Sriphirom, a PhD student under the supervision of Assoc Prof Dr Sirintornthep Towprayoon, for receiving the Best Student Presentation award under the session on "Protective Farming and Sustainable Management". The award was remitted for his talk on "Comparison of Organic and Inorganic Fertilizer when Combined with Biochar and Alternate Wetting and Drying on Methane Emission and Yield of Rice Cultivation".



8th International Conference on Sustainable Energy & Environment

Pre-Announcement of SEE2020

Block your calendar

28 - 31 October 2020
Chiang Mai, THAILAND

Meeting the 1.5 °C Climate Ambition: From Local to Global Innovation

The Joint Graduate School of Energy and Environment, King Mongkut's University of Technology Thonburi (JGSEE-KMUTT) in collaboration with its consortium partners* and Kyoto University, is pleased to announce the organization of SEE2020, during 28 - 31 October 2020 in Chiang Mai, Thailand.

The year 2020 will see the deadlines for various action items to take effect as established by the Paris Agreement, with the central aim of strengthening the global response to the threat of climate change. More than 70 countries have committed to net zero carbon emissions by 2050; and more than 100 cities have done the same. In the face of a "climate emergency", as declared by the European Parliament, it is now more critical than ever that all these actions be aligned and targeted towards limiting global warming to 1.5°C. Since 2004, SEE, which is a series of biennial conferences, has been serving as a forum for presenting recent progress and advances in science, technology and innovation that addresses energy, environment and climate change issues, and exchange of ideas and networking. SEE2020 is thus focused on sustainable innovation for accelerating solutions for climate actions in meeting the 1.5°C climate ambition and underpinning sustainable growth and development in the region and globally. The importance of innovation in supporting local actions will also be highlighted.

Important dates

Abstract submission	30 April 2020
Notification of acceptance	31 May 2020
Full paper submission	31 July 2020
Early-bird registration deadline	15 September 2020

Co-organizers:



Supporting Journals

A number of leading journals are being approached

Technical Supporters

KMUTT, PERDO, CMU, PSU, KMUTNB, SIIT-TU

Topics

- Bioenergy, Biofuels, Bio-refinery and Bio-chemicals
- Renewable energy and smart energy systems
- Energy efficiency
- Other Low carbon energy technologies
- Energy and environmental policy
- Climate technology and Innovation
- Energy- and non-energy-related air-pollution
- Waste and circular economy

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