14th GMSARN International Conference 2019
27th-29th November, Luang Prabang, Laos

The 14th GMSARN International Conference on Smart Energy, Environment, and Development for Sustainable GMS” was held between 27th-29th November 2019 at the Grand Luang Prabang, Laos. The conference was organized by AIT and NUOL (National University of Laos) with collaboration with GMSARN.

The event aimed at focusing on smart energy, environment, and development with sustainability in Greater Mekong sub-region for planning a balanced green growth to combat the negative impacts of urbanization due to increasing population in GMS countries.

About 140 participants including distinguished researchers, experts, and GMSARN Committee members attended the event to discuss and exchange innovative ideas on legitimate development related to energy, environment, and sustainability development in GMS countries.

During the event, 108 paper presentations from five different countries viz; Denmark, Japan, Thailand, USA and Vietnam on ‘Energy’, ‘Environment’ and Sustainability Development were held.

Prof. Weerakorn Ongsakul Bags IEEE PES Outstanding Engineering Award 2019

Prof. Weerakorn Ongsakul, from Energy Academic Program is awarded the IEEE PES Outstanding Engineering Award 2019.

The award ceremony was organized during the IEEE PES Dinner talk event held on 21st November 2019 at Centara Grand Hotel, Central Plaza, Bangkok.

“Department of Energy, Environment and Climate Change congratulates Prof. Weerakorn on his great achievement.”

AIT’s Belt & Road Research Centre
28th November, Asian Institute of Technology

AIT has recently inaugurated “The Belt & Road Research Centre” on 28th November 2019, which is aimed at incorporating regional research resources and promoting diversified cooperation under the framework of the Belt & Road Initiative.

Among the inaugurating members were AIT President, Dr. Eden Woon; Prof. Biliang Hu, AIT alumnus and Director, Belt and Road School, Beijing Normal University (BNU); Mr. Wang Shi, renowned Chinese entrepreneur and founder of Vanke; and Dr. Wenchao Xue, Faculty, Department of Energy, Environment and Climate Change (EECC), AIT. “EECC Department congratulates Dr. Wenchao Xue on being appointed as the first Director of the Centre.”

AIT President, Dr. Eden Woon is a member of GMSARN Board Committee and Conference Chair. Prof. Weerakorn Ongsakul, from EECC Department is GMSARN Secretary General and Conference Executive Director.
Field Visits - EEM Program

Nongkhaem Wastewater Treatment Plant
1st November, Bangkok

EEM students visited Nongkhaem Wastewater Treatment Plant at Bangkok on 1st November 2019. The main objective of the field visit was to understand the process steps of the wastewater treatment plant related to the course ED78.35 Wastewater Treatment.

Automotive Emission Laboratory, Pollution Control Department, Ministry of Natural Resources and Environment
8th November, Bangkok

EEM students visited the Automotive Emission Laboratory, Pollution Control Department, Ministry of Natural Resources and Environment on 8th November.
The main objective of the field visit was to observe the process of mobile air pollution emission monitoring and learn more about traffic effects on air pollution, which relates to the course ED78.37 Air Pollution Engineering and Management.

Energy Program

Department of alternative Energy Development and Efficiency
12th November 2019, Bangkok

Energy students visited the Department of alternative Energy Development and Efficiency, Bangkok on 12th November 2019. The main objective of the field visit was to learn about different energy saving & efficient technologies as a part of the two courses ED72.37 and ED72.44.

Publications

Prof. Joyashree Roy


An article on “Climate action and maritime business education: the pedagogy of experiential learning” co-authored by Prof. Roy is published in the IIRE Journal of Maritime Research & Development (Vol 3, issue 2, pp 62-75. ISSN:2456-7035).


Prof. Shobhakar Dhakal


Faculty Engagements

Prof. Visvanathan delivered a seminar at National Waste Supply and Drainage Board
31st October, Colombo, Sri Lanka

Prof. C. Visvanathan from EEM Program was invited by the National Waste Supply and Drainage Board (NWSDB), Colombo, Sri Lanka to deliver a seminar on “Visualizing the Evolution of Resilient Urban Water Treatment Systems” on 31st October, 2019. The event was organized as part of the NWSDB’s new Training Centre funded by ADB where more than 100 Water Board Engineers attended the seminar. A detailed technical discussion on how the Water Board should prepare for the next generation of water engineers was held during the event.

Following the seminar, a senior managerial meeting was conducted with Mr. Thilina S. Wijetunge, Additional General Manager, NWSDB.

During the meeting, Prof. Visu discussed on the possible AIT academic and research collaboration with new training center of NWSDB, and how AIT could assist in making the training center more visible in the region. NWSDB expressed their interest in regular funding of few of their staff to follow the Master Degree Course of EEM Academic Program, using the existing project funding from ADB. They also expressed their interest in organizing a “Study Tour” to midlevel management in Thailand by AIT to expose the issues related to: Water and wastewater treatment – decentralized system with IOT related control issues, Asset Management, Integrated Waste Management, Climate proofing of
Later, a Research Projects Review Meeting was organized by the NWSDB engineers, and the researchers from China – Sri Lanka Water Research Centre Staff. During the meeting, 9 on-going research projects were presented based on which the various possibilities to collaborate with EEM Academic Program of AIT were explored and discussed that could assist these researchers to improve the quality of the research work, and help them to make journal publications.

1st MESfIA Workshop: Addressing Energy Supply Problem in Isolated Areas
4th – 8th November, Bandung, Indonesia

Prof. Sivannapan Kumar, Prof. Shobhakar Dhakal and Dr. Jai Govind Singh along with our Research staff Ms. Pallavi Das, from Energy Program participated in the 1st MESfIA Workshop on “Addressing Energy Supply Problem in Isolated Areas” during 4th to 8th November at Bandung, Indonesia.

The workshop was organized by the Institut Teknologi Bandung (ITB). European and Asian partners, and stakeholders of the project, and various experts in the field of energy participated in the workshop to discuss and share their experiences regarding energy supply issues in isolated areas.

AIT is a partner of MESfIA Project funded by the European Union under the framework of the Erasmus+ program. The Energy Academic Program, Department of Energy, Environment and Climate Change, AIT is working with this project.

Outreach Event on IPCC Role, Activities and Findings
7th - 8th November, Hyderabad, India & 14th-15th November, Kolkata, India

Bangabandhu Chair Professor Joyashree Roy, from Energy program was invited to attend the Tenth Biennial Conference of the Indian Society for Ecological Economics- INSEE, held in Hyderabad, India during 7th-8th November 2019.

During the conference, Prof. Roy spoke on “Main Findings of the IPCC Special Report on Global warming of 1.5°C”.

Prof. Roy was also invited as a keynote speaker at the Dissemination Workshop of Three Special Reports of IPCC held in Biswa Bangla Convention Centre, Kolkata, India during 14th -15th November.

The event was organized by the Department of Environment, Government of West Bengal and West Bengal Pollution Control Board in collaboration with Intergovernmental Panel on Climate Change (IPCC) and Global Change Program, Jadavpur University (GCP-JU). During the event, Prof. Roy spoke on “Global warming of 1.5 degrees”.

Prof. Kumar visited SIIT
12th November, Pathumthani

Prof. Sivannapan Kumar paid a promotional visit to Sirindhorn International Institute of Technology on 12th November 2019.

During his visit, Prof. Kumar represented AIT and Energy Academic Program of EECC Department. He spoke on the various research scopes and career perspectives of Energy Academic Program. He also discussed on the scholarships and fellowships offered at AIT applicable for prospective Thai candidates.

Global Challenge Research Fund Panel
18th November, London

Prof. Shobhakar Dhakal joined the Commissioning Panel Meeting for the UK Research and Innovation ‘s (UKRI) GCRF Sustainable Energy and International Development: Beyond Technology, run by the Economic and Social Research Council held on 18th November 2019 at London.
Prof. Thammarat Koottatep attended the Two-days write-shop at Tufts University
17th-18th November, Boston

Prof. Thammarat Koottatep from EEM Program, participated in the 2-days write-shop held at Tufts University, Boston during 17th to 18th November 2019.

During the event, Prof. Thammarat along with Dr. Daniele Susan Lantagne, Associate Professor, Tuft University worked on developing a proposal on "Fecal Sludge Management in Emergency" that seriously causes disease outbreaks in several displaced camps.

International Conference on “New Horizons in Biotechnology 2019”
20th-24th November, Trivandrum, India

Prof. C. Visvanathan was invited as a keynote speaker at the International Conference on “New Horizons in Biotechnology 2019” organized by CSIR-National Institute for Interdisciplinary Science and Technology, Trivandrum along with the “Biotech Research Society, India”, the largest body of biotechnology professionals in India at Trivandrum from 20th-24th November 2019.

Nearly 500 delegates from 30 countries, participated in the conference which included scientists, academicians and students.

During the conference, Prof. Visu delivered a lecture on: “Conventional Biofilters to Air Membrane Bioreactors (aMBR): Scope, Application and Challenges”.

Elsevier Publication’s Annual Editorial Board Meeting
20th November, Trivandrum, India

Prof. Visu also attended an “Annual Editorial Board Meeting of the Elsevier Publication, Journal of Biore­sources Technology”, as a member of the editorial board which was held on 20th November, 2019.

During the meeting, Prof. Visu reviewed the progress of the journal and set the targets for 2020.

Asian Development Bank Book Launch Event
25th November, Asian Institute of Technology

Prof. Shobhakar Dhakal alongside Dr. Bambang Susantono, Vice-President of Asian Development Bank (ADB) spoke on “Infrastructure Financing in Asia” at ADB Book Launch event organized at AIT on 25th November 2019.

During the presentation, Prof. Shobhakar spoke on his perspectives on financing gaps and how to bridge these gaps in Asia.

International Symposium on Education and Research in Global Environmental Studies in Asia
26th-28th November, Kyoto University

Prof. Thammarat Koottatep attended the International Symposium on “Education and Research in Global Environmental Studies in Asia”, held during 26th-28th November at Yoshida campus of Kyoto University.

During the symposium two keynote lectures on “ STI for SDGs: Role of Universities and International Co-operation to Achieve SDGs “ and “ Enhancing Environmental Sustainability in Asia-Pacific: Role of ADB and Universities” were delivered.
Workshop on “Open Source Energy Modelling”  
28th November, Jadavpur University, India

Bangabandhu Chair Professor, Joyashree Roy participated in a jointly arranged workshop on “Open Source energy modelling” on 28th November, 2019 at Global Change Programme organized by Jadavpur University in collaboration with EDF, Washington DC. USA.

“Supply side planning unless considers social innovation and transition needs in energy sector appropriately in national contexts will find it almost impossible to provide implementable solutions”, Prof. Joyashree Roy.

Seminar on “Energy Value Chain and Sustainability”  
29th November, Kuala Lumpur, Malaysia

Prof. Shobhakar Dhakal delivered a seminar on “Energy Value Chain and Sustainability” to the MBA students in Energy Management Programme at the University of Technology Petronas at Kuala Lumpur, Malaysia on 29th November 2019.

During his visit, Prof. Shobhakar also discussed on the possible avenues of collaboration of the University of Technology Petronas with AIT on energy business areas, and jointly organizing short courses for corporate sector policy makers.

Doctoral Seminar  
18th November, SERD Seminar


Abstract: One of the sectors most in need of reducing the amount of carbon dioxide emissions is the transportation sector. There is a way to perform it by making a shift towards electric vehicles (EV). An EV uses one or more electric motors or traction motors for propulsion. Energy storage is a key component in electric vehicles including the battery, flywheel, capacitor, and fuel cell. It provides electric power for the drivetrain in an EV. Batteries are the most widely used in electric powertrains. In a battery, electric power is generated via an electrochemical reaction. Batteries are known as sources with high specific energy. However, its specific power is normally low.

Specifications of flywheel and ultra-capacitor can store from regeneration and motor or generation and provide instantaneous high-power demand.

Due to limitations imposed by the economy, time, and available resources, optimization is a crucially important task in developing any new technology. EV's optimization of the energy storage systems is important due to its impact on lowering manufacturing cost, weight and volume of the system, enhancing fuel economy, and reducing harmful gas emissions.

Therefore, this research addresses the optimal sizing of the energy storage in electric vehicles for different driving range based on advanced optimization method considering charge station, battery swapping solar PV and onboard generator facility. The main relevant items in the topic include batteries, flywheel, ultra-capacitor, battery electric vehicles, driving ranges, charge station, battery swapping, onboard generator facility, solar PV and fuel cell vehicles.

World Toilet Day Celebrations  
19th November, AIT

Prof. Thammarat Koottatep from EEM Program attended the consultative meeting on "How should Thailand create Safely-Managed Sanitation for All" with the Director and senior officials of the Department of Diseases Control and the Department of Health, as a part of the World Toilet Day celebration on 19th November 2019 at AIT.

During the meeting, Prof. Thammarat discussed the potentials of making a model city using the Reinvented Toilet Technology and Effective Fecal Sludge Management Tools of “NATS Reinventing the Toilet” which would be a progress towards the Sustainable Development Goal 6 (SDG6): “Ensure availability and sustainable management of water and sanitation for all”.
Upcoming Events

132nd Graduation Day
13th December, Robert B. Banks Auditorium, AIT Conference Center

Asian Institute of Technology is organizing the 132nd Graduation Day on 13th December 2019 at Robert B Banks Auditorium, AIT Conference Center.

All graduands of AIT and AITians are invited to attend the graduation ceremony.

Come and Join us to celebrate & congratulate all our students on successfully graduating from AIT!

ICUE 2020 International Conference on Energy, Environment, and Climate Change
20th-22nd October 2020, Pattaya City, Thailand

Asian Institute of Technology is organizing ICUE 2020 International Conference on Energy, Environment, and Climate Change between 20th-22nd October at Pattaya City, Thailand. The ICUE 2020 Conference will be a venue to exchange research ideas, experiences and discuss technical, social, financial, economic and policy issues covering energy utilization and its effect to the environment and climate change. The conference will mainly focus on the topics related to energy resources and technology, energy policy, environment and climate change.

Admission for January Semester 2020

The Department of Energy, Environment, and Climate Change is accepting applications for the January Semester 2020. Sign up to learn how a degree from AIT can help you meet your personal and career goals. We offer fellowships to qualified students.

Let’s discuss the application process and help you prepare to apply. Our admissions officers can help you craft your story. Before you submit, get answers to your application questions. Create your account on our admission portal and start filling the application. We are here to help you. Contact us.

Awards and Publications

Awards will be accorded to well-written and presented papers. The winning papers will also be invited for publication in the International Energy Journal (a Scopus-indexed and EI Compendex-listed peer-reviewed journal).

Contact: Maria Kathrina B. Gratuito
Tel: (66 2) 524 6216, 524 5413
E-mail: icue2020@ait.ac.th

Here’s what our alumni have to say…

Ms. Pallavi Das
Energy Program
Master of Science in Energy (2016)
Research Associate, AIT
MESfIA Project

"AIT provides not just an education but also a milieu for character development and cultural exposure."

Mr. Chiranjeevi Chalamalasetty
Energy Program
Master of Engg. in Energy (2017)
Marketing and Research Executive

"AIT is a place that prepares you for the future"