E-Newsletter of the Department of Energy, Environment and Climate Change, SERD, AIT

New Student Orientation - January 2020 Intake

AIT welcomed all the new students of January 2020 Semester during an Institute-wide Orientation Day organized on Monday, 6th January, 2020 at AIT Conference Center.

Energy Program Re-structured to ‘Sustainable Energy Transition’

EECC Department’s Energy Program has been re-structured to ‘Sustainable Energy Transition’ Program (SE), as effective from August 2020 Semester.

SE program is aimed at preparing future leaders capable of meeting the emerging needs of energy transitions ensuring sustainable progress for humanity. This program is an interdisciplinary program encompassing new technologies, policy, social, and management aspects, addressing the rising challenges of energy transitions, especially in the areas of low carbon electricity supply systems, reducing energy intensity, demand and providing energy access to all physical and geographical areas.
**Launch of New 1-Year Master’s Program - ‘Marine Plastics Abatement’**

EECC Department launched new ‘1-Year Master’s Program in MARINE PLASTICS ABATEMENT’ under the Environmental Engineering and Management Program (EEM) with support from the Government of Japan as a step towards its “MARINE Initiative” with regards to realization of the “Osaka Blue Ocean Vision” shared at the G20 Osaka Summit last year, aimed at reducing additional pollution by marine plastic litter to zero by 2050. The program will start from August 2020 Semester.

**Launch of New 1-Year Master’s Program - ‘Regenerative Sanitation’**

EECC Department launched new ‘1-Year Master’s Program in REGENERATIVE SANITATION’ under the Environmental Engineering and Management Program (EEM), as effective from January 2021. The new program will focus on the delivery of non-sewered sanitation services in the context of the UN Sustainable Development Goals. The course seeks women and men from diverse backgrounds in acknowledgement of the diversity and complexity of challenges in urban and rural sanitation worldwide.

**Expert advises to avoid outdoor activities during the daytime**

Dr. Ekbordin Winijkul, from EEM Program, suggested to avoid outdoor activities during the daytime as his current research findings showed the level of ‘ozone’, has been higher than normal in some areas, over the past few weeks.
‘Times Higher Education (THE) Impact Rankings’—SDG7 & SDG13

AIT ranked #201-300 in the world for SDG7-Clean Energy, and SDG13- Climate Action in the Times Higher Education (THE) Impact Rankings, which looks at global universities’ commitment and performance in furthering the Sustainable Development Goals (SDGs).

May 2020 Graduation Message - From AIT President

“We are proud of your achievements, and we are thankful to you to persevere through your last few months of education at AIT as unforeseen circumstances forced us into emergency measures. You will never forget your last few months at AIT, and we will never forget you! Good luck!!”, AIT President Dr. Eden Woon.

AIT joins UNESCO’s ‘The Plastic Initiative’

AIT partnered with UNESCO in ‘The Plastic Initiative’ on Friday, 12th June 2020 during a webinar to celebrate World Environment Day 2020: Biodiversity, at the UNESCO Bangkok Office. AIT’s membership in this initiative follows the recent launch of 1-year Master’s program in Marine Plastics Abatement (MPA), under the EECC Department.

Annual Report 2019 - Department of Energy, Environment and Climate Change

We are delighted to share with you the ‘Annual Report 2019’ of Department of Energy, Environment and Climate Change. The Annual Report 2019 highlights the departmental achievements, events and academic matters for the year 2019. The EECC seminar series, special lecture series, doctoral seminar series, co-curricular and extra-curricular activities, student field trips, student thesis, research and dissertations, publications, outreach and developments are reflected in the report. It also brings into focus the grants and sponsored research projects by the faculty members under the department.
Bangabandhu Chair Professor, Joyashree Roy, from SE Program, was invited as a Key note speaker at the ‘East West Economics Research Conclave 2020’, East West University, Department of Economics, in Dhaka, Bangladesh, during 7th -12th January 2020.

Prof. C. Visvanathan, from EEM Program has been invited at the ‘IEEE International Conference on Artificial Intelligence (AI) and Signal Processing (AISP’20)’, organized by Vellore Institute of Technology-Andhra Pradesh and IEEE Guntur sub-section with Technical Co-sponsorship by IEEE Hyderabad Section in Vijayawada, India, during 10th -12th January 2020.


Prof. Sivanappan Kumar, presented at a webinar on ‘Climate Technologies and Technology Needs Assessments activities in Asia-Pacific’ organized by Technology Needs Assessment (TNA), on Tuesday, 16th June 2020.
Climate Change Seminar Series

Climate Change Seminar (ED82.09) is a one-credit course under Climate Change and Sustainable Development Program, EECC Department, SERD, AIT. The objective of this course is to address contemporary global and local topics linked with climate change for in-depth discussion for enhancing their knowledge base and critical thinking. A series of ‘Climate Change Seminars’ were held under this course during 14th January - 14th February 2020:

- “Introduction to Course: What to expect from the course and what is expected from the class participants”, by Prof. Shobhakar Dhakal, Dean of School of Environment, Resources and Development, and Professor at Department of Energy, Environment and Climate Change, AIT, and Dr. Bindu N. Lohani, AIT Board member and former Vice President of Asian Development Bank, Asian Institute of Technology on Tuesday, 14th January 2020.

- “Climate Change Negotiations and Timeline”, by Prof. Shobhakar Dhakal, Dean-SERD, SE Program, EECC Department, SERD, AIT on Tuesday, 14th January 2020.

- “Selected Themes from IPCC Reports”, by Prof. Joyashree Roy, Bangabandhu Chair Professor, SE Program, Department of Energy, Environment and Climate Change, SERD, AIT on Thursday, 16th January 2020.

- “IPCC Special Reports on Global Warming of 1.5°C”, by Dr. Bindu N. Lohani, AIT Board member and former Vice President of Asian Development Bank, AIT on Thursday, 16th February 2020.

- “IPCC Assessment Process for AR5 and AR6 and Key Findings of IPCC AR5 WG III”, by Prof. Shobhakar Dhakal, Dean-SERD, SE Program, EECC Department, SERD, AIT on Tuesday, 21st January 2020.

- “Sustainable Development and Climate Change”, by Dr. Bindu N. Lohani, AIT Board member and former Vice President of Asian Development Bank, AIT on Tuesday, 21st January 2020.

- “Waste Management and Climate Change: Intuitions and Interactions”, by Prof. C. Visvanathan, EEM Program, EECC Department, SERD, AIT on Thursday, 23rd January 2020.


- “Climate Finance”, by Prof. Tae Yong Jung, Graduate School of International Studies, Yonsei University, South Korea on Tuesday, 28th January 2020.

- “GAS to VALUE: CCUS (Carbon Capture, Utilization and Storage) With Plasma Technology”, by Prof. Kyung Nam Kim, Green School (Graduate School of Energy and Environment), Korea University, South Korea on Tuesday, 28th January 2020.
EVENTS

Climate Change Seminar Series

- “Water Efficient Cities”, by Prof. Joo Young Park, Green School (Graduate School of Energy and Environment) Korea University, South Korea on Tuesday, 28th January 2020.

- “Classifying Climate Vulnerability in 226 Local Entities in Korea”, by Mr. Jongwoon Moon, Graduate School of International Studies, Yonsei University, South Korea on Tuesday, 28th January 2020.

- “Mitigation-Energy Sector”, by Prof. S. Kumar, SE Program, EECC Department, AIT on Thursday, 30th January 2020.

- “Bioenergy for Climate Change Mitigation”, by Dr. P. Abdul Salam, Head of the Department, EECC Department, SE Program, AIT on Thursday, 30th January 2020.


- “UNEP Activities in the Asia Pacific Region on Climate Change”, by Mr. Mozaharul Alam, Regional Coordinator, Climate Change Programme, UN Environment, Bangkok, Thailand on Thursday, 30th January 2020.

- “Land Use and Agriculture in a Changing Climate”, by Dr. Puspa Raj Khanal, Senior Water Resources Development and Irrigation Expert, Food and Agriculture Organization (FAO), Bangkok, Thailand on Thursday, 30th January 2020.


- “Food System and Climate Change – Role of Demand Side Management for Climate Change Mitigation”, by Dr. Prajal Pradhan, Post-Doctoral Researcher, Potsdam Institute for Climate Impact Research, Germany on Tuesday, 4th February 2020.

- “Climate Change Adaptation in the Agricultural Sector: Strategies for Rice Cultivation in Asian Context”, by Dr. Avishek Datta, Associate Professor, Department of Food, Agriculture and Bioresources, AIT on 4th February 2020.

- “Climate Change Risk, Uncertainty and Decision Making Under Uncertainty”, by Dr. Bindu N. Lohani, AIT Board member and former Vice President of Asian Development Bank, AIT on Tuesday 4th February 2020.

- “Deep De-Carbonization in 1.5 Degree World: Why Cities are Crucial?”, by Prof. Shobhakar Dhakal, Dean-SERD, SE Program, EECC Department, SERD, AIT on Tuesday, 6th February 2020.

- “Adaptation Needs and Options”, by Dr. Peter King, Senior Policy Advisor, Institute for Global Environmental Strategies, Regional Center in Bangkok, Thailand on Friday, 7th February 2020.
“Managing Flood Risks Through Grey and Green Infrastructure - Emerging Trends and Perspectives”, by Prof. Mukand S. Babel, Department of Water Engineering and Management (WEM), AIT on Monday, 10th February 2020.

“Climate Change (Adaptation) Finance: What You Need To Know”, by Mr. Robert Dobias, Advisor at Climate Change Center, National Research Council of Thailand on Tuesday, 11th February 2020.

“Climate Change and Disaster Risk Management”, by Dr. Frederic Asseline, Principal Climate Finance Specialist, Asian Development Bank, Manila, Philippines on Tuesday, 11th February 2020.

“Climate Investment, Climate Finance and Carbon Market in Today’s World”, by Prof. Shobhakar Dhakal, Dean-SERD, SE Program, EECC Department, SERD, AIT on Tuesday, 11th February 2020.

“Climate Policies”, by Prof. Shobhakar Dhakal, Dean-SERD, SE Program, EECC Department, SERD, AIT on Tuesday, 13th February 2020.

“ICT and Climate Change”, by Prof. Shobhakar Dhakal, Dean-SERD, SE Program, EECC Department, SERD, AIT on Tuesday, 14th February 2020.

A co-authored book chapter entitled, “Climate Change and Diseases of Plants and Animals: A Study in Home Gardens of West Bengal, India”, by Prof. Joyashree Roy, Bangabandhu Chair Professor, AIT, has been published in the book -‘Climate Change and Anthropogenic Impacts on Health in Tropical and Subtropical Regions’.

An article on “Recovery of plastics from dumpsites and landfills to prevent marine plastic pollution in Thailand” co-authored by Prof. Chettiyappan Visvanathan, from EEM Program, AIT has been published in the ‘Waste Disposal & Sustainable Energy’ Journal.

An article entitled, “Changes in per capita CO\textsubscript{2} emissions of six large Japanese cities between 1980 and 2000: An analysis using “The Four System Boundaries” approach” co-authored by Prof. Shobhakar Dhakal, Dean of SERD, SE Program, EECC Department, AIT has been published in the ‘Sustainable Cities and Society’ Journal.

A co-authored article by Prof. Shobhakar Dhakal entitled, “An assessment of opportunities and challenges for cross-border electricity trade for Bangladesh using SWOT-AHP approach” has been published in the ‘Energy Policy’ Journal.
An article on “Methane: A Bioresource for Fuel and Biomolecules” co-authored by Prof. Chettiyappan Visvanathan has been published in the ‘Frontiers in Environmental Science’ Journal.

An article on “Design of Batch Algal Cultivation Systems and Ranking of the Design Parameters” co-authored by Dr. P. Abdul Salam, Head of the Department, EECC, AIT, has been published in the ‘Energy, Ecology and Environment’ Journal.


A co-authored article by Prof. Weerakorn Ongsakul entitled, “Optimal power flow incorporating renewable uncertainty related opportunity costs” is published in the ‘Computational Intelligence’ Journal.


A co-authored article by Dr. Wenchao Xue, from EEM Program, entitled, “Sea salt bittern-driven forward osmosis for nutrient recovery from black water: A dual waste-to-resource innovation via the osmotic membrane process” is published in the ‘Frontiers of Environmental Science & Engineering’ Journal.


A co-authored article by Prof. Joyashree Roy entitled, “Key Drivers of Indian Greenhouse Gas Emissions” has been published in the ‘Economic & Political Weekly’ Journal.


A conference paper entitled, “Enhancement of Power Generation From Electromagnetic Scavenging Tile” co-authored by Dr. Jai Govind Singh, Academic Chair, SE Program, EECC, AIT, in the 2020 International Conference on Power Electronics & IoT Applications in Renewable Energy and its Control (PARC) has been published by IEEE.


A co-authored article by Prof. Nguyen Thi Kim Oanh entitled, “Analysis of roadside air pollutant concentrations and potential health risk of exposure in Hanoi, Vietnam” is published in the ‘Journal of Environmental Science and Health’.

A co-authored article by Prof. Chettiyappan Visvanathan entitled, “Enhancement of food waste thermophilic anaerobic digestion through synergistic effect with chicken manure” is published in the ‘Biomass and Bioenergy’ Journal.

A research article on “Microalgae-based biodiesel production in open raceway ponds using coal thermal flue gas: A case of West Bengal, India” co-authored by Dr. P. Abdul Salam has been published in the ‘Environmental Quality Management’ Journal.


Hear from our Graduates...

“I got HM Queen’s Scholarship to study in AIT, and this has been an honorable opportunity in my student life. I am proud to be an AIT student”

- Ms. Nuttawadee Chanwaro, Thailand, EEM Program

“When I look back and compare the person I was before and after AIT, I can see that my entire perspective on climate change and sustainable development have changed”

- Ms. Prashamsa Thapa, Nepal, CCSD Program

“AIT is the best international school in Thailand for post-graduation”

- Mr. Titipong Samakpong, Thailand, Energy Program

“AIT is such a wonderful family that gives opportunity to build lifelong friendships with people from different cultures. I am thankful for the continuous support from faculty and staff members, right from the application process until my graduation.”

- Mr. Sahawat Yumunthama, Thailand, EEM Program