

Conference Program
The 6th EnvironmentAsia Virtual International Conference on
“Challenge of Global Environmental Changes in the 21st Century”
20-21 December 2021, Bangkok, Thailand

December 20, 2021	
08:00-08:45	Registration
08:45-09:00	Signing ceremony of Memorandum of Understanding between Institution of Research Community Service, Universitas 17 Agustus 1945 Surabaya, Indonesia and the Thai Society of Higher Education Institutes on Environment, Thailand
09:00-09:15	Welcome remarks Prof. Dr. Wanida Jinsart President of Thai Society of Higher Education Institutes on Environment (TSHE) Opening remarks Dr. Wijarn Simachaya, Director of the Thailand Environment Institute Foundation
09:15-10:00	Keynote speech “ Climate Change: Impact, Adaptation and Vulnerability ” Dr. Wijarn Simachaya, Director of the Thailand Environment Institute Foundation <u>Moderator</u> : Dr. Sumeth Wongkiew, Chulalongkorn University, Thailand
10:00-10:15	Refreshment
10:15-12:15	Panel Discussion “ Better Environment, Better Quality of Life in the 21st Century ” <u>Panelists</u> : Better Environment with More Trees: Prof. Emeritus Dr. Warren Y. Brockelman, Mahidol University, Thailand Environmental Innovation: Dr. Wilaiporn Chetanachan, Principal Innovation Advisor Office of the President and CEO, Siam Cement Group, Thailand Future Air Pollution and Climate Change in South East Asia: Prof. Dr. Akira Kondo, Osaka University, Japan Natural Resource Management, Education and Outreach: Dr. Sarah Clement, University of Western Australia, Australia <u>Moderator</u> : Dr. Sumeth Wongkiew, Chulalongkorn University, Thailand
12:15-13:00	Lunch

December 20, 2021

13:00-16:30 Oral presentation (Conference Room – Room IV)

Session	ENV-SCI	ENV-NAT	ENV-CLIM
	Conference Room	Room I	Room II
Chair	Prof. Dr. Chongrak Polprasert, Thammasat University, Thailand	Prof. Emeritus Dr. Warren Y. Brockelman, Mahidol University, Thailand	Prof. Dr. Shabbir H. Gheewala, King Mongkut's University of Technology Thonburi, Thailand
Co-Chair (1)	Assoc. Prof. Dr. Wanna Musig, Ramkhamhaeng University, Thailand	Dr. Sarah Clement, University of Western Australia, Australia	Assoc. Prof. Dr. Kansri Boonpragob, Ramkhamhaeng University, Thailand
Co-Chair (2)	Asst. Prof. Dr. Vorapot Kanokkantapong, Chulalongkorn University, Thailand	Assoc. Prof. Dr. Pasicha Chaikaew, Chulalongkorn University, Thailand	Asst. Prof. Dr. Pajaree Thongsanit, Naresuan University, Thailand
Special Talk 13:00-13:30	I-1-i “Real time Monitoring and Early Warning System for Saline Water Intrusion into the Bangkachao Artificial Island” <i>Prof. Dr. Uma Seeboonruang, King Mongkut's Institute of Technology Ladkrabang, Thailand</i>	II-1-i “Hybrid Water Governance in Responding to New Environmental Challenges in the Vietnamese Mekong Delta” <i>Dr. Thong Anh Tran, The Australian National University Canberra, Australia</i>	III-1-i “Sustainability Assessment of Energy Systems in a Life Cycle Perspective” <i>Prof. Dr. Shabbir H. Gheewala, King Mongkut's University of Technology Thonburi, Thailand</i>
13:30-13:50	ENVI-SCI-001	ENVI-NAT-001	ENVI-CLIM-001
13:50-14:10	ENVI-SCI-002	ENVI-NAT-002	ENVI-CLIM-002
14:10-14:30	ENVI-SCI-003	ENVI-NAT-003	ENVI-CLIM-003
14:30-14:50	Refreshment	Refreshment	Refreshment
14:50-15:10	ENVI-SCI-004	ENVI-NAT-004	ENVI-CLIM-004
15:10-15:30	ENVI-SCI-005	ENVI-NAT-005	ENVI-CLIM-005
15:30-15:50	ENVI-SCI-006	ENVI-NAT-006	ENVI-CLIM-006
15:50-16:10	ENVI-SCI-007		ENVI-CLIM-007
16:10-16:30	ENVI-SCI-008		ENVI-CLIM-008
16:30-16:50	ENVI-SCI-009		ENVI-CLIM-009

December 20, 2021

13:00-16:30 Oral presentation (Conference Room – Room IV)

Session	ENV-HEALTH	ENV-HEALTH/COVID
	Room III	Room IV
Chair	Prof. Dr. Eiji Yano, Teikyo University, Japan	Prof. Surasak Taneepanichskul, Chulalongkorn University, Thailand
Co-Chair (1)	Assoc. Prof. Dr. Somporn Chantara, Chiang Mai University, Thailand	Prof. Dr. Siwatt Pongpiachan, National Institute of Development Administration, Thailand
Co-Chair (2)	Assoc. Prof. Dr. Uma Langkulsen, Thammasat University, Thailand	Asst. Prof. Dr. Siranee Sresai, Mahidol University, Thailand
Special Talk 13:00-13:30	IV-1-i “ Bias in Environmental Epidemiology ” <i>Prof. Dr. Eiji Yano, Teikyo University, Japan</i>	IV-3-i “ Impact of COVID-19 Infections on PM_{2.5} Levels in Ambient Air of Bangkok, Thailand ” <i>Prof. Dr. Siwatt Pongpiachan, National Institute of Development Administration, Thailand</i>
13:30-13:50	ENVI-HEALTH-001	ENVI-HEALTH-007
13:50-14:10	ENVI-HEALTH-002	ENVI-HEALTH-008
14:10-14:30	ENVI-HEALTH-003	ENVI-COVID-001
14:30-14:50	Refreshment	Refreshment
Special Talk 14:50-15:20	IV-2-i “ Health Effects of Air Pollution on School Children ” <i>Dr. Dongruethai Buadong, Mahidol University, Thailand</i>	IV-4-i “ Air Quality of Delhi during Successive Waves of COVID-19 Pandemic: an Empirical Analysis ” <i>Dr. Abhishek Dutta, Chulalongkorn University, Thailand</i>
15:20-15:40	ENVI-HEALTH-004	ENVI-COVID-002
15:40-16:00	ENVI-HEALTH-005	ENVI-COVID-003
16:00-16:20	ENVI-HEALTH-006	ENVI-COVID-004

December 21, 2021

08:30-09:00	Registration
09:00-10:30	<p>Panel Discussion “Contaminants of Emerging Concerns”</p> <p><u>Panelists:</u> Roles of Biogenic Hydrocarbons on PM2.5 Formation: Prof. Dr. Alex Guenther, University of California Irvine, USA Nanoparticles: Prof. Dr. Shaily Mahendra, University of California Los Angeles, USA Pharmaceutical and Personal Care Product: Prof. Dr. Chongrak Polprasert, Thammasat University, Thailand Marine Debris and Microplastic: Prof. Dr. Thammarat Koottatep, Asian Institute of Technology, Thailand <u>Moderator:</u> Asst. Prof. Dr. Peerapong Pornwongthong, King Mongkut's University of Technology North Bangkok, Thailand</p>
10:30-10:45	Refreshment
10:45-12:30	<p>Special Talks</p> <p>S 1 “Environmental Harmless Chemical Technology” Prof. Dr. Kunio Kawamura, Hiroshima Shudo University Japan S 2 “Integrated Management of VOCs from Petroleum and Petrochemical Industry” Assoc. Prof. Dr. Sarawut Thepanondh, Mahidol University, Thailand S 3 “Sustainable Forest Project Thailand” Dr. Thanapong Duangmanee, MaeFahLaung Foundation, Thailand <u>Moderator:</u> Asst. Prof. Dr. Peerapong Pornwongthong, King Mongkut's University of Technology North Bangkok, Thailand</p>
12:30-13:30	Lunch

December 21, 2021

13:30-16:00 TCAR (Thailand Consortium for Atmospheric Research) special session “COVID-19 Air Pollution and Climate Change; Challenges in the 21st Century” (Conference Room)

13:30-16:20 Concurrent presentation, Room I-IV

Session	ENV-SCI	ENV-SCI
	Room I	Room II
Chair	Prof. Dr. Akihiko Terada, Tokyo University of Agriculture and Technology, Japan	Assoc. Prof. Dr. Christopher Sales, Drexel University, USA
Co-Chair (1)	Assoc. Prof. Dr. Pongsak Noophan, Kasetsart University, Thailand	Assoc. Prof. Dr. Chuleemas Boonthai Iwai, Khon Kaen University, Thailand
Co-Chair (2)	Dr. Sumeth Wongkiew, Chulalongkorn University, Thailand	Asst. Prof. Dr. Peerapong Pornwongthong, King Mongkut's University of Technology North Bangkok, Thailand
Special Talk 13:30-14:00	I-2-i “ Excess Sludge from Municipal Wastewater Treatment Disposal and Management ” <i>Prof. Dr. Akihiko Terada, Tokyo University of Agriculture and Technology, Japan and Assoc. Prof. Dr. Pongsak Noophan, Kasetsart University, Thailand</i>	I-3-i “ Development of Non-thermal Plasma Technologies for the Treatment of Poly- and Perfluoroalkyl Substances (PFASs) ” <i>Assoc. Prof. Dr. Christopher Sales, Drexel University, USA</i>
14:00-14:20	ENVI-SCI-010	ENVI-SCI-017
14:20-14:40	ENVI-SCI-011	ENVI-SCI-018
14:40-15:00	ENVI-SCI-012	ENVI-SCI-019
15:00-15:20	Refreshment	Refreshment
15:20-15:40	ENVI-SCI-013	ENVI-SCI-020
15:40-16:00	ENVI-SCI-014	ENVI-SCI-021
16:00-16:20	ENVI-SCI-015	ENVI-SCI-022
16:20-16:40	ENVI-SCI-016	

17:00-17:30 Announcement of best oral presentation award

Closing ceremony

MC: Asst. Prof. Dr. Ornprapa Pummakarnchana Robert, Silpakorn University, Thailand

December 21, 2021

13:30-16:00 TCAR (Thailand Consortium for Atmospheric Research) special session “COVID-19 Air Pollution and Climate Change; Challenges in the 21st Century” (Conference Room)

13:30-16:20 Concurrent presentation, Room I-IV

Session	ENV-NAT
	Room III
Chair	Prof. Dr. Vilas Nitivattananon, Asian Institute of Technology, Thailand
Co-Chair (1)	Dr. Thong Anh Tran, The Australian National University Canberra, Australia
Co-Chair (2)	Lt. Col. Pongsakorn Kaewkornmuang, Chulachomkiao Royal Military Academy, Thailand
Special Talk 13:30-14:00	II-2-i “ Urban Environmental Management ” <i>Prof. Dr. Vilas Nitivattananon, Asian Institute of Technology, Thailand</i>
14:00-14:20	ENVI-NAT-007
14:20-14:40	ENVI-NAT-008
14:40-15:00	ENVI-NAT-009
15:00-15:20	Refreshment
Special Talk 15:20-15:50	II-3-i “ Climate Change Policies and the Environment ” <i>Assoc. Prof. Dr. Witsanu Attavanich, Kasetsart University, Thailand</i>
15:50-16:10	ENVI-NAT-010
16:10-16:30	ENVI-NAT-011
16:30-16:50	ENVI-NAT-012

Session	ENV-CONTA
	Room IV
Chair	Prof. Dr. Akira Kondo, Osaka University, Japan
Co-Chair (1)	Assoc. Prof. Dr. Adcharaporn Pagdee, Khon Kaen University, Thailand
Co-Chair (2)	Lt. Col. Asst. Prof. Dr. Kittiphop Promdee, Chulachomkiao Royal Military Academy, Thailand
Special Talk 13:30-14:00	V-1-i “ Circular Economy and Plastic Waste Management ” <i>Prof. Dr. Orathai Chavalparith, Chulalongkorn University, Thailand</i>
14:00-14:20	ENVI-CONTA-001
14:20-14:40	ENVI-CONTA-002
14:40-15:00	ENVI-CONTA-003
15:00-15:20	Refreshment
15:20-15:40	ENVI-CONTA-004
15:40-16:00	ENVI-CONTA-005

17:00-17:30 Announcement of best oral presentation award

Closing ceremony

MC: Asst. Prof. Dr. Ornprapa Pummakarnchana Robert, Silpakorn University, Thailand

Monday 20 December 2021

Oral Presentation Session I
Environmental Science and Innovation

Session chair : Prof. Dr. Chongrak Polprasert, Thammasat University, Thailand
Co-Chair (1) : Assoc. Prof. Dr. Wanna Musig, Ramkhamhaeng University, Thailand
Co-Chair (2) : Asst. Prof. Dr. Vorapot Kanokkantapong, Chulalongkorn University, Thailand

13:00-13:30 **Special Talk**

I-1-i

Real time Monitoring and Early Warning System for Saline Water Intrusion into the Bangkachao Artificial Island

Prof. Dr. Uma Seeboonruang, King Mongkut's Institute of Technology Ladkrabang, Thailand

13:30-13:50 **ENVI-SCI-001** Effects of Different Longan Biochar and Gravel Proportions on Wastewater Treatment Efficacy of Constructed Wetland: A Pilot-scale Study

*Pakawat Janyasupab and Arunothai Jampeetong**

13:50-14:10 **ENVI-SCI-002** Enhancement of Water Recycle with Combined Ozonation and Ultrafiltration Processes

*Watcharapol Wonglertarak**, *Boonchai Wichitsathian* and *Jareeya Yimratanabovorn*

14:10-14:30 **ENVI-SCI-003** Increasing Nitrogen Content for Fertilizer by Anaerobic Composting and Biogas Recirculation

*Wimonmas Boonyungyuen** and *Thaneeya Rangseesuriyachai*

14:30-14:50 **REFRESHMENT**

14:50-15:10 **ENVI-SCI-004** Development and Characterization of Bioplastic from Macroalgae *Padina australis*

*Lily Surayya Eka Putri**, *Nanda Saridewi*, *Sabrina Farah* and *Rafika Nur Hapsari*

15:10-15:30 **ENVI-SCI-005** Comparison of Seedling Detection and Height Measurement Using 3D Point Cloud Models from Three Software Tools: Applications in Forest Restoration

Punnat Changsalak and *Pimonrat Tiansawat**

Remark: _ presenter and * corresponding author

Monday 20 December 2021

Oral Presentation Session I

Environmental Science and Innovation

Session chair : Prof. Dr. Chongrak Polprasert, Thammasat University, Thailand
Co-Chair (1) : Assoc. Prof. Dr. Wanna Musig, Ramkhamhaeng University, Thailand
Co-Chair (2) : Asst. Prof. Dr. Vorapot Kanokkantapong, Chulalongkorn University, Thailand

- 15:30-15:50 **ENVI-SCI-006** The Linkage between Air Quality Management and Sustainable Development in Thailand: A research Point of View
*Rakjit Kanlayanatam, Ananya Kongsin and Suthirat Kittipongvises**
- 15:50-16:10 **ENVI-SCI-007** Preliminary Study of Alternative Environmentally Friendly X-ray Shielding Materials Based on Nano-bismuth (III) Oxide Coated Fabric
Natcha Suriwong, Jaroon Janjaroen, Khaisang Chousangsuntorn, Supranee Kaewpirom and Siridech Boonsang*
- 16:10-16:30 **ENVI-SCI-008** Participation Model in Refuse Derived Fuel (RDF) Case Study of Ban Klong Municipality
Sutawong Pornnapa, Det Wattanachaiyingcharoen and Kamolporn Boonthavorn*
- 16:30-16:50 **ENVI-SCI-009** Efficacy of Chitosan Extracted from Channeled Apple Snail in Treating Fats and Oils of Wastewater from Constructed Wetlands
*Sudarat Woeisan, Jiranun But-on and Pawena Limpiteprakan**

Remark: _ presenter and * corresponding author

Monday 20 December 2021

Oral Presentation Session II

Natural Resource Conservation and Management

Session chair: Prof. Emeritus Dr. Warren Y. Brockelman, Mahidol University, Thailand
Co-Chair (1): Dr. Sarah Clement, University of Western Australia, Australia
Co-Chair (2): Assoc. Prof. Dr. Pasicha Chaikaew, Chulalongkorn University, Thailand

13:00-13:30 **Special Talk**

II-1-i

Hybrid Water Governance in Responding to New Environmental Challenges in the Vietnamese Mekong Delta

Dr. Thong Anh Tran, The Australian National University Canberra, Australia

13:30-13:50 **ENVI-NAT-001** Role of a Lower Montane Forest inside National Park of Northern Thailand on Carbon Storage
*Kittsak Lumsonjitt**, *Soontorn Khamyong*, *Niwat Anongrak* and *Amarin Boontun*

13:50-14:10 **ENVI-NAT-002** Relationships between Land Use Patterns and Water Quality in the Pong River Basin, Northeast Thailand
Hathaichanok Jaikawna and *Adcharaporn Pagdee**

14:10-14:30 **ENVI-NAT-003** The Development of Monetary Valuation Approach for Land Use Impact: A Case of Seasonal Rice Field in Thailand
*Piyanon Haputta**, *Orachorn Kamnoet* and *Shabbir H. Gheewala*

14:30-14:50 **REFRESHMENT**

14:50-15:10 **ENVI-NAT-004** Water Footprint Analysis of Alternate Wet and Dry Lowland Rice Production in Chiang Mai Province
Lalita Prachaniyom, *Nattawut Sareein* and *Chitchol Phalaraksh**

15:10-15:30 **ENVI-NAT-005** Bibliometric Analysis of Collaborative Governance on Watershed Management Research
*Muh. Sofyan Budiarto**, *Ida Widianingsih*, *Raden Ahmad Buchari*, *Entang A. Muhtar* and *Herri Saksono*

15:30-15:50 **ENVI-NAT-006** Pleco-based Feedstock for Black Soldier Fly Maggot: Potential Management Strategy for Invasive Pleco Fish (*Glyptoperichthys gibbiceps*) in Tempe Lake, Sulawesi Selatan, Indonesia
*Khairil Asna** and *Adcharaporn Pagdee*

Remark: _ presenter and * corresponding author

Monday 20 December 2021

Oral Presentation Session III

Transboundary Pollution, Climate Change and Atmospheric Research

Session chair: Prof. Dr. Shabbir H. Gheewala, King Mongkut's University of Technology Thonburi, Thailand

Co-Chair (1) : Assoc. Prof. Dr. Kansri Boonpragob, Ramkhamhaeng University, Thailand

Co-Chair (2) : Asst. Prof. Dr. Pajaree Thongsanit, Naresuan University, Thailand

13:00-13:30 **Special Talk**

III-1-i

Sustainability Assessment of Energy Systems

Prof. Dr. Shabbir H. Gheewala, King Mongkut's University of Technology Thonburi, Thailand

13:30-13:50 **ENVI-CLIM-001** Land Use Random Forests Model Incorporating with WRF/CMAQ for Estimating Daily PM_{2.5} Concentration in Bangkok, Thailand
*Tin Thongthammachart**, *Shin Araki*, *Hikari Shimadera*, *Tomohito Matsuo* and *Akira Kondo*

13:50-14:10 **ENVI-CLIM-002** Comparison of Anthropogenic Local and Global Emission Inventories for Greater Bangkok
*Muanfun Inerb**, *Kasemsan Manomaiphiboon**, *Ekkachai Kokkaew*, *Natchanok Pala-En*, *Tassana Boonyoo*, *Suchart Pattaramunikul*, *Nishit Aman*, *Bikash Devkota*, *Chakrit Chotamonsak*, *Kanoksri Sarinnapakorn*, *Surajate Boonya-Aroonnet*, *Nosha Assareh*, *Kritanai Torsri*, *Rati Sawangwattanaphaibun* and *Aungkana Jinvong*

14:10-14:30 **ENVI-CLIM-003** Greenhouse Gas Flux Analysis and Life Cycle Assessment of Agricultural Cropping Systems in Phayao, Thailand
Titaporn Supasri, *Jirasak Noisapung*, *Montri Sanwangsri*, *Pimsiri Suwannapat* and *Ronald Macatangay**

14:30-14:50 **REFRESHMENT**

14:50-15:10 **ENVI-CLIM-004** Aerosol Impact on Regional Meteorology during a Dry Season over Northern Thailand
*Sherin Hassan Bran**, *Ronald Macatangay*, *Vanisa Surapipith*, *Chakrit Chotamonsak* and *Somporn Chantara*

15:10-15:30 **ENVI-CLIM-005** Temperature Humidity and Wind Speed Effect on PM_{2.5} Concentrations in Upper Northern Thailand
Natraphat Chaisue, *Kotchanipha Klansuk*, *Pantitcha Thanatrakolsri** and *Surangrat Pongpan*

Remark: _ presenter and * corresponding author

Monday 20 December 2021

Oral Presentation Session III

Transboundary Pollution, Climate Change and Atmospheric Research

Session chair: Prof. Dr. Shabbir H. Gheewala, King Mongkut's University of Technology Thonburi, Thailand

Co-Chair (1) : Assoc. Prof. Dr. Kansri Boonpragob, Ramkhamhaeng University, Thailand

Co-Chair (2) : Asst. Prof. Dr. Pajaree Thongsanit, Naresuan University, Thailand

15:30-15:50 **ENVI-CLIM-006** Health Impact Assessment of Long-term Exposure to Particulate Matter (PM₁₀) in Northern Thailand
*Pakaporn Ngamsang, Thao Ngoc Linh Nguyen, Teerachai Amnuaylojaroen, Titaporn Supasri and Ronald Macatangay**

15:50-16:10 **ENVI-CLIM-007** Metal and Carbon Composition of PM_{2.5} in Traffic Congestion Area of Chiang Mai City
*Natthanit Kantarawilawan, Pavidarin Kraisitnitikul, Duangduean Thepnuan, Nuttipon Yabueng, Wittaya Tala, Wan Wiriya and Somporn Chantara**

16:10-16:30 **ENVI-CLIM-008** 2019 Emission Inventory Development in the Northern Part of Thailand
Thanapat Jansakoo, Vanisa Surapipith and Ronald Macatangay*

16:30-16:50 **ENVI-CLIM-009** Influencing Factors of Fine Particulate Matter (PM_{2.5}) in the Northern Thailand
Phimphaka Taninpong, Watha Minsan, Donlapark Pornnoparath and Punyanut Damnong*

Remark: _ presenter and * corresponding author

Monday 20 December 2021

Oral Presentation Session IV

Environmental and Occupational Health

Session chair: Prof. Dr. Eiji Yano, Teikyo University, Japan
Co-Chair (1) : Assoc. Prof. Dr. Somporn Chantara, Chiang Mai University, Thailand
Co-Chair (2) : Assoc. Prof. Dr. Uma Langkulsen, Thammasat University, Thailand

13:00-13:30 **Special Talk**

IV-1-i

Bias in Environmental Epidemiology

Prof. Dr. Eiji Yano, Teikyo University, Japan

13:30-13:50 **ENVI-HEALTH-001** Water, Sanitation Practices, and Diarrheal Diseases – Local Experiences from the Philippines
Rhodailita Mangubat and Patricia Anne Nazareno

13:50-14:10 **ENVI-HEALTH-002** Health Risk Assessment of Workers Exposed to Respirable Particulate Matter and Heavy Metal in Industrial Waste Treatment
Prayad Kenyota and Wanida Jinsart*

14:10-14:30 **ENVI-HEALTH-003** Comparative Human-Ecotoxicological Impacts and Willingness to Pay: A Case of Pesticide Transition from Paraquat to Atrazine in Sweet Corn Cultivation in Thailand
Patharanun Toolkiattiwong, Pasicha Chaikaew and Chidsanuphong Chart-asa*

14:30-14:50 **REFRESHMENT**

14:50-15:20 **Special Talk**

IV-2-i

Health Effects of Air Pollution on School Children

Dr. Dongruethai Buadong, Mahidol University, Thailand

15:20-15:40 **ENVI-HEALTH-004** Assessment of Disposal and Explosion of Solvent Naphtha from Large Storage Tanks by Aloha Model and Fire Evacuation Simulation by Pathfinder Model
*Sudjai Permnam and Soontree Khuntong**

15:40-16:00 **ENVI-HEALTH-005** Biomonitoring of Arsenic, Thiocyanate and Manganese in Urine and Blood of People Living near Potential Gold Areas in Thailand
Naravadee Chinnarat, Prayad Kenyota and Yanisa Srisai*

16:00-16:20 **ENVI-HEALTH-006** Glyphosate Exposure and Lung Function in Corn Farmers
Sutthinee Sidthilaw, Ratana Sapbamrer, Chaicharn Pothirat, Klintean Wunnapuk and Supakit Khacha-ananda

Remark: _ presenter and * corresponding author

Monday 20 December 2021

Oral Presentation Session IV

Environmental and Occupational Health / Environmental Challenges and the COVID-19 Crisis

Session chair: Prof. Surasak Taneepanichskul, Chulalongkorn University, Thailand
Co-Chair (1) : Prof. Dr. Siwatt Pongpiachan, National Institute of Development Administration, Thailand
Co-Chair (2) : Asst. Prof. Dr. Siranee Sresai, Mahidol University, Thailand

13:00-13:30 **Special Talk**

IV-3-i

Impact of COVID-19 Infections on PM_{2.5} Levels in Ambient Air of Bangkok, Thailand

Prof. Dr. Siwatt Pongpiachan, National Institute of Development Administration, Thailand

13:30-13:50 **ENVI-HEALTH-007**

Work Improvement of Employees in Stator Process, Using Ergonomic Risk Assessment: Case Study of Automotive Parts Factory
Auraiphon Chaiyen and Pensuda Phanritdum*

13:50-14:10 **ENVI-HEALTH-008**

Occupational Health Hazard Identification and Risk Mitigation at Engineering Procurement and Construction Projects Sultanate of Oman

*Hareesh kallingal Ramakrishnan, Pallavi N and Turenjai Doolgindachbaporn**

14:10-14:30 **ENVI-COVID-001**

The COVID-19 Pandemic Impact to Plastic Packaging Waste Quantity Prediction from Economic Index Data in Thailand
Phongthon Saengchut, Haritsalak Viriya and Nirun Kongritti*

14:30-14:50 **REFRESHMENT**

14:50-15:20 **Special Talk**

IV-4-i

Air Quality of Delhi, India during Successive Waves of COVID-19 Pandemic: An Empirical Analysis

Dr. Abhishek Dutta, Chulalongkorn University, Thailand

15:20-15:40 **ENVI-COVID-002**

Contribution of Primary and Secondary PM_{2.5} at a Near Road Monitoring Station in Bangkok during the 2020 COVID-19 Lockdown

*Preecha Panmoon and Nares Chuersuwan**

15:40-16:00 **ENVI-COVID-003**

Quality Improvement of Hand Sanitized Gel

*Sornsawan Duangta, Tipwaree Panyaeak, Methee Juntaropakorn, Janpen Tangjitjaroenkul, Jammong Tanyasit, Panor Rueysoongnern, Rungnapa Aengkam and Soontree Khuntong**

16:00-16:20 **ENVI-COVID-004**

FOREST BATHING: New Perspective of Tourism during COVID-19 Outbreak in Thailand

*Chonthicha Rungjaroensin, Minthakarn Rattanaphunsri, Phanthila Lertsawai and Dararat Simpattanawong**

Remark: _ presenter and * corresponding author

Tuesday 21 December 2021

Oral Presentation Session I

Environmental Science and Innovation

Session chair: Prof. Dr. Akihiko Terada, Tokyo University of Agriculture and Technology, Japan

Co-Chair (1) : Assoc. Prof. Dr. Pongsak Noophan, Kasetsart University, Thailand

Co-Chair (2) : Dr. Sumeth Wongkiew, Chulalongkorn University, Thailand

13:30-14:00 **Special Talk**

I-3-i

Excess Sludge from Municipal Wastewater Treatment Disposal and Management

Prof. Dr. Akihiko Terada, Tokyo University of Agriculture and Technology, Japan

Assoc. Prof. Dr. Pongsak Noophan, Kasetsart University, Thailand

14:00-14:20 **ENVI-SCI-010** Screening of Plant Growth Promoting Rhizobacteria from Cadmium Contaminated Area
*Wasawat Leartsiwawinyu and Thitinun Sumranwanich**

14:20-14:40 **ENVI-SCI-011** Effect of Microplastics on Microalgae *Chlorella* sp. TISTR 8262
*Kittiya Phonyiam and Nuchanat Chamchoi**

14:40-15:00 **ENVI-SCI-012** Altitude Distribution of Fine Particulate Matters PM_{2.5} and PM_{10-2.5} in the Dry Season with High Ambient PM Concentrations in Bangkok
*Hathairat Kittipalarak, Nopparat Pongboonkhumlarp and Wanida Jinsart**

15:00-15:20 **REFRESHMENT**

15:20-15:40 **ENVI-SCI-013** Enhancement of Titanium Dioxide by Bagasse Silica for Photocatalytic Degradation of Dyes
Wina Rongchapo, Krittanun Deekamwong, Narong Chanlek, Sanchai Prayoonpokarach and Jatuporn Wittayakun*

15:40-16:00 **ENVI-SCI-014** Prototype of Web-Based Tool Using Integrated Approaches for Self-PM_{2.5} Management for Maha Sarakham Province
Thayukorn Prabamroong, Sahatsawat Chatprompong and Patorn Nilati^{2,5}*

16:00-16:20 **ENVI-SCI-015** A Study of Microbial Removal Efficiency of Wastewater Treatment Plants with Different Secondary Treatment Systems in Bangkok, Thailand
*Nonnarit Sriporatana and Jatuwat Sangsanont**

16:20-16:40 **ENVI-SCI-016** Energy Demand Modeling for the Eastern Economic Corridor of Thailand: A Case Study of Rayong Province
Chanidaporn Lunsamrong and Atit Tippichai*

Remark: _ presenter and * corresponding author

Tuesday 21 December 2021

Oral Presentation Session I

Environmental Science and Innovation

Session chair: Assoc. Prof. Dr. Christopher Sales, Drexel University, USA

Co-Chair (1) : Assoc. Prof. Dr. Chuleemas Boonthai Iwai, Khon Kaen University, Thailand

Co-Chair (2) : Asst. Prof. Dr. Peerapong Pornwongthong, King Mongkut's University of Technology North Bangkok, Thailand

13:30-14:00 **Special Talk**

I-4-i

Development of Non-thermal Plasma Technologies for the Treatment of Poly- and Perfluoroalkyl Substances (PFASs)

Assoc. Prof. Dr. Christopher Sales, Drexel University, USA

14:00-14:20 **ENVI-SCI-017** Efficiency of Wastewater Treatment Plants Case study of Queen Savang Vadhana Memorial Hospital
*Sutawong Pornnapa**, *Det Wattanachaiyingcharoen* and *Kamolporn Boonthavorn*

14:20-14:40 **ENVI-SCI-018** Scenario Analysis of Energy Demand towards the Low Carbon City Target for Nakhon Ratchasima Province, Thailand
*Kattreeya Teungchai** and *Atit Tippichai*

14:40-15:00 **ENVI-SCI-019** The LC of Asian Catfish, *Pangasius bocourti* and Hybrid (*Pangasius bocourti* x *Pangasius pangasius*) Exposure to Ammonia and Nitrite
Sompong Doolgindachbaporn, *Porntep Niampithak*, *Siripavee Charoenwattanasak* and *Bundit Yuangsoi**

15:00-15:20 **REFRESHMENT**

15:20-15:40 **ENVI-SCI-020** Recycling of Piggery Effluent for *Azolla microphylla* Production and Application in Vermiculture for Enhancing Nutrients Quality and Driving BCG Economy Model
Phearun Lay and *Chuleemas Boonthai Iwai**

15:40-16:00 **ENVI-SCI-021** Perspective of People Living in Bangkok toward VR in Tourism Industry
Thattep Mekpyoon, *Dharmaditay Sukulbrahman*, *Lechun Saeguay* and *Angkana Yaiyong**

16:00-16:20 **ENVI-SCI-022** Impact of Socioeconomic Factors on CO2 Emission in Thailand
*Thanapoom Juthavantana**, *Thanapat Sakulpattanacharoen*, *Poonyawee Leelaprute* and *Pichit Boonkrong*

Remark: _ presenter and * corresponding author

Tuesday 21 December 2021

Oral Presentation Session II

Natural Resource Conservation and Management

Session chair: Prof. Dr. Vilas Nitivattananon, Asian Institute of Technology, Thailand
Co-Chair (1) : Dr. Thong Anh Tran, The Australian National University Canberra, Australia
Co-Chair (2) : Lt. Col. Pongsakorn Kaewkornmuang, Chulachomklao Royal Military Academy, Thailand

13:30-14:00 **Special Talk**

II-2-i

Urban Environmental Management

Prof. Dr. Vilas Nitivattananon, Asian Institute of Technology, Thailand

14:00-14:20

ENV-NAT-007

Water Management by Community Case Study of Ban Than Mayom
*Sutawong Pornnapa**, *Det Wattanachaiyingcharoen* and *Kamolporn Boonthavorn*

14:20-14:40

ENVI-NAT-008

On the Potential of Tidal Energy Resource Assessment at the Pak Phra Strait in Phuket and Phang Nga Provinces, Thailand
*Narit Klompong**, *Jompob Waewsak*, *Ruamporn Nikhom*, *Chana Chancham*, *Somphol Chiwamongkholkarn* and *Yves Gagnon*

14:40-15:00

ENVI-NAT-009

Using Macroinvertebrates as Biological Indicators to Assess Wastewater Quality at Laem Phak Bia Environmental Research and Development Project, Phetchaburi Province, Thailand
Wasinee Thongdang and *Ratcha Chaichana**

15:00-15:20

REFRESHMENT

15:20-15:50

Special Talk

II-3-I

Climate Change Policies and the Environment

Assoc. Prof. Dr. Witsanu Attavanich, Kasetsart University, Thailand

15:50-16:10

ENVI-NAT-010

Assessment the Carbon Footprint of Egg Production in Khon Kaen Province Thailand
*Rachadaporn Benchawattananon**

16:10-16:30

ENVI-NAT-011

Distribution of *Castanopsis calathiformis* (Skan) Rehder & E.H. Wilson Seedlings Beneath Maternal Tree Crowns in Forest Restoration Plots
*Sakonwan Kaewsomboon** and *Sutthathorn Chairuangsrri*

16:30-16:50

ENVI-NAT-012

Environmental Risk Assessment of Floating Gardens in Inle Lake, Myanmar
Theingi Khaung and *Chuleemas Boonthai Iwai**

Remark: _ presenter and * corresponding author

Tuesday 21 December 2021

Oral Presentation Session V
Contaminant of Emerging Concerns

Session chair: Prof. Dr. Akira Kondo, Osaka University, Japan
Co-Chair (1) : Assoc. Prof. Dr. Adcharaporn Pagdee, Khon Kaen University, Thailand
Co-Chair (2) : Lt. Col. Asst. Prof. Dr. Kittiphop Promdee, Chulachomklao Royal Military Academy, Thailand

13:30-14:00 **Special Talk**
V-1-i

Circular Economy and Plastic Waste Management

Prof. Dr. Orathai Chavalparith, Chulalongkorn University, Thailand

14:00-14:20 **ENVI-CONTA-001** Evaluation of Cadmium Accumulation of Pak Choi (*Brassica rapa sub. Chinesis*) at Different Cadmium Concentrations and pH Levels and Health Risk Analysis
*Piyachet Jinsart and Sumeth Wongkiew**

14:20-14:40 **ENVI-CONTA-002** Heavy Metals Contaminated from E-waste Recycling Site in Blood of Khorat Snail-eating Turtle (*Malayemys khoratensis*)
*Monthakarn Mokrat, Apichaya Ruangsakunporn, Thotsapol Chaianunporn, Khemika Lomthaisong and Sarun Keithmalesatti**

14:40-15:00 **ENVI-CONTA-003** The Effect of LDPE Microplastics on Soil Metabolic Activities and Microbial Community Profile
Kwang Mo Yang, Toemthip Poolpak and Prayad Pokethitiyook**

15:00-15:20 **REFRESHMENT**

15:20-15:40 **ENVI-CONTA-004** Hg²⁺- Selective Fluorescence Chemosensors for Contamination Screening in Environmental and Biological Contexts
*Nirawit Kaewnok, Pattanawit Swanglap, Thanasat Sooksimuang and Nantanit Wanichacheva**

15:40-16:00 **ENVI-CONTA-005** Dual-Functional Fluorescent Chemosensor Based on [5]Helicene for Detection of Gold(III) Ions
*Nirawit Kaewnok, Anuwut Petdum, Waraporn Panchan, Thanasat Sooksimuang, Nantanit Wanichacheva and Krit Setthakarn**

Remark: _ presenter and * corresponding author