Program at a Glance

Time	Day 1: December 21, 2020 (Monday)	
08:00 – 09:00	**Registration & Opening Session** at ***Choun Chom 1*&2**	
09:00 – 09:10	**Welcome Address** **by H.E. Dr. Subin Pinkayan** *Former Chairperson of The Board of Trustees, AIT, Thailand*	
09:10 – 09:30	**Extended Remark on "*Battery Energy Storage Technology and Global Trend*"** **by Prof. Dr. Weerakorn Ongsakul** *GMSARN Secretary General & Conference Executive Director*	
09:30 – 10:00	**Keynote Address I: "*Smart City Showcase and Trend*"** **by Asst. Prof. Dr. Manirath Wongsim** *Mahasarakham University*	
10:00 – 10:30	**Group Photo Session & Coffee/Tea Break**	
10:30 – 12:00	**Break out Session 1**	
	Choun Chom 1	Energy 1
	Choun Chom 2	Environment & Development 1
12:00 – 13:00	Lunch Break	
13:15 – 19:30	Excursion and Boat Trip including Reception Dinner (Optional)	

Time	Day 2: December 22, 2020 (Tuesday)	
09:00 – 09.30	**Keynote Address II: "*Energy Efficiency Improvement with Self-Driving Air for Smart Buildings through the Use of Multi-Agent Systems and Internet of Things Devices*"** **by Dr. Warodom Khamohanchai** *CEO and Co-Founder, AltoTech, Co., Ltd.*	
09:30 – 11:45	**Break out Session 2 & Coffee/Tea Break**	
	Choun Chom 1	Energy 2
	Choun Chom 2	Energy 3 & Environment 2 & Development 2
11:45 – 12:00	**GMSARN2020 Recap & Closing Remarks** **by Prof. Dr. Weerakorn Ongsakul** *GMSARN Secretary General & Conference Executive Director*	
12:00 – 13:30	**Lunch Break**	
13:30 – 16:30	**Break out Session 3 & Coffee/Tea Break**	
	Choun Chom 1	Development 3
	Choun Chom 2	Development 4
End of Conference		

Presentation Schedule

DAY ONE: 21 December 2020

10:30 – 12:00	**ENERGY 1**	***Choun Chom 1***
Session Chairperson: ***Assoc. Prof. Dr. Somporn Ruangsinchaiwanich, Naresuan University***		
E-01	Influence of Affective Factors on Error Estimation of Electrical Power of Solar PV Rooftop using Artificial Neural Network Method ***K. Khongseeprai****, B. Wangngon, and* ***S. Ruangsinchaiwanich***	*Thailand*
E-02	Cleaning Frequency Optimization of Solar PV Rooftop base on AI Methods ***B. Wangngon****, K. Khongseeprai, and* ***S. Ruangsinchaiwanich***	*Thailand*
E-04	Voltage Instability Analysis of Microgrid System under High Penetration Level of Windmill by PV and QV Curves ***Krittidet Buayai,*** *Teerapat Dumrongthum,Yuttana Kongjeen and Kaan Kerdchuen*	*Thailand*
E-05	Voltage Stability Analysis in Microgrid System Considering Integration Photovoltaic Solar Energy under Uncertainty of Load Variation *Y. Kongjeen,* ***W. Eiampong****, K. Buayai and K. Kerdchuen*	*Thailand*
E-06	Performance Evaluation the Capacity of the Photovoltaic System with Solar Radiation Model Using Ambient Temperature Data: A Case Study of Bangkok, Thailand ***Krishda Srichanpiyom*** *and Patinya Sakwan*	*Thailand*
E-10	Mathematical Modeling of Shake Flask Fermentation of Vancomycin from Biodiesel-Derived Crude Glycerol using *Amycolatopsis orientalis* ***Peshalya Kothalawala*** *and Wanwipa Siriwatwechakul*	*Thailand*

10:30 – 12:00	**ENVIRONMENT 1 & DEVELOPMENT 1**	***Choun Chom 2***
Session Chairperson: ***Mr. Cherid Kalayanamitr, EGAT, Thailand***		
Env-02	Developing a social acceptance indicator for solid waste disposal site ***Khemika Kongpetch****, Sun Olapiriyakul, and Pisal Yenradee*	*Thailand*
Env-03	Dimensioning and Planning of an Activated Carbon Filter to Remove Microplastic Particles in the Effluent of a Wastewater Treatment Plant in Bangkok *Lukas Klocke, Anh Tuan Ta,* ***Sandhya Babel****, and Andreas Haarstick*	*Thailand*
Env-04	Spatial Distribution of Drought Hazard Mapping Based on AHP and GIS in Kampong Speu Province *Chhuonvuoch Koem, Korakod Nusit, and* ***Sarintip Tantanee***	*Thailand*
Env-05	Influence of large irrigation dam operation on water quality of surface water bodies in Thai wetlands near saline soil spots ***Sombat Chuenchooklin***	*Thailand*
SD-01	Water Storage Capacity, Spatial Change and Impacts on Farmers' Livelihood in Monkey Cheek Area, Lopburi Province, THAILAND	*Thailand*

	***Anisara Pensuk Tibkaew**, Kunakorn Homkhaow, Natcha Poonnarak, and Phumiphat Thapkaen*	
SD-02	China's International Education Aid to Cambodia in the 2010s: Analysis of Current State and Trend ***Ampa Kaewkumkong***	*Thailand*

DAY TWO: 22 December 2020

09.30 – 11.45 **ENERGY 2** ***Choun Chom 1***

Session Chairperson: ***Asst. Prof. Dr. Supattana Nirukkanaporn, Rangsit University, Thailand***

E-09	Coordinated Generation Scheduling for Multi-Area System Considering Tie-Line Constraint *N. Petcharaks, P. Nantivatana, K. Chayakulkheeree and* ***Supattana Nirukkanaporn***	*Thailand*
E-11	Development of Mobile Robot System for Monitoring and Cleaning of Solar Panels ***Panus Nattharith** and Tanee Kosum*	*Thailand*
E-12	Technical and Financial Analysis in Biogas Power Plant for SMEs Layer Poultry Farm ***Sittichoke Pookpunt***	*Thailand*
E-13	May the Electricity be with You by Field Force Management System (FFM) ***Thana Tangkochareon***	*Thailand*
E-14	IoT with On-load tap changer transformer in LV distribution network ***Prachaya Udomparichatr***	*Thailand*
E-15	The Control Strategy of Single-Phase Grid-tied Hybrid Inverter for Over Voltage Mitigation in Radial Distribution Networks with PV and Battery ***Piyadanai Pachanapan**, Tanakorn Kaewchum, and Sakda Somkun*	*Thailand*
E-17	Incentive-Based Demand Response Framework for Utilities Side Profit Maximization using Genetic Algorithm *Sane Lei Lei Wynn, and* ***Boonruang Marungsri***	*Thailand*
E-18	The Solar Power Plant Maintenance for Efficiency Improvement: A Case Study in Mukdahan, Thailand ***Jassada Sarasook**, Somyot Seesansui, Tharathip Phurahong and Chaiyapon Thongchaisuratkrul*	*Thailand*

09.30 – 11.45 **ENERGY 3 & ENVIRONMENT 2 & DEVELOPMENT 2** ***Choun Chom 2***

Session Chairperson: ***Dr. Nattadon Pannucharoenwong, Thammasat University, Thailand***

E-07	A review of numerical flow and heat transfer modelling in biological tissue due to electromagnetic field exposure effects ***Kumpanat Chaiphet**, Nattadon Pannucharoenwong, Phadungsak Rattanadecho and Snunkhaem Echaroj*	*Thailand*
E-16	Effect of Biochar from Palm Oil Shell on Co-Anaerobic Digestion of Tuna Processing Waste for Biogas Production: Optimal and mesophilic Condition ***Hussaro K.**, and Intanin J.*	*Thailand*

Env-01	Review in the anodization process and operating conditions for the preparation of porous aluminum oxide ***Direk Nualsing***, *Nattadon Pannucharoenwong, Phadungsak Rattanadecho and Snunkhaem Echaroj*	*Thailand*
SD-03	A Mobile-Healthcare: A Review of current state in 2020 *Wachirathorn Janchomphu,* ***Nattadon Pannucharoenwong****, Phadungsak Rattanadecho, Snunkhaem Echaroj, Kammal Kumar Pawa and Tanita Suepa*	*Thailand*
SD-04	The Development Mobile Application Emergency Medical Service Alert System Base on Line Application and Google Map API Technique ***Wachirathorn Janchomphu****, Nattadon Pannucharoenwong, Phadungsak Rattanadecho, Snunkhaem Echaroj, Kammal Kumar Pawa, and Tanita Suepa*	*Thailand*
SD-07	Creating A Prototype Smart City for A Case of Developing World ***Pawinee Iamtrakul****, and Jirawan Klaylee*	*Thailand*
SD-08	Effect of Urban Metabolism on Urban Energy Consumption in Mobility System ***Jirawan Klaylee****, Pawinee Iamtrakul, and Apinya Padon*	*Thailand*
SD-10	Prediction of Future Inflow Discharge to Sirikit Dam under Climate and Land Use Change Projections, Upper Nan River Basin, Thailand ***Thanasit Promping****, and Tawatchai Tingsanchali*	*Thailand*
SD-22	Upland Rice Packaging Design for Ban Huai Luek Agricultural Community Enterprise, Khian Sa District, Surat Thani Province ***Kewalin Angkananon****, and Piyabud Ploadaksorn*	*Thailand*
SD-27	Development of Emission Inventory of Street Cooking in Bangkok, Thailand ***Wanpulee Chaosakul****, Ekbordin Winijkul, and Weerakorn Ongsakul*	*Thailand*

13:30 – 16.30 **DEVELOPMENT 3** ***Choun Chom 1***

Session Chairperson: *Dr. Pongsutti Phuensane, Khon Kaen University, Thailand*

SD-05	The application of circular economy concept in the context of canal community development ***Pawinee Iamtrakul****, and Sararad Chayphong*	*Thailand*
SD-06	The Study on Association between Urban Factors and Walkability in Transit Oriented Development: TOD *Apinya Padon,* ***Pawinee Iamtrakul****, Jirawan Klaylee*	*Thailand*
SD-11	Integration of Future Meteorological Drought Hazard Assessment for Agriculture Area in Upper Ping River Basin, Thailand *Thanasit Promping, and* ***Supatchaya Chuanpongpanich***	*Thailand*
SD-13	Local Markets: How the Ordinary Public Places Can Support Urban Sustainable Development ***Nattika Navapan*** *and Sasima Charoenkit*	*Thailand*
SD-16	Influence of Demographic Characteristics and Extrinsic Motivations on Farmers' Smart Farming Adoption in Northeastern Thailand ***Pongsutti Phuensane****, Pensri Jaroenwanit, and Patcharee Hongthong*	*Thailand*

SD-19	Assurance, Trust and Satisfaction towards the Intention of Medical Tourism Information through Electronic Word-of-Mouth (EWOM) ***Darin Rungklin**, Kanon Trichandhara, and Idsaratt Rinthaisong*	*Thailand*
SD-24	Minimizing Risk and Managing Crisis Situation during the Pandemic of Coronavirus Disease **(**COVID**-**19**)** by Applying Village Health Volunteer **(** VHV**) '** s Social Network: A Preliminary Study of the Triangulated Collaborations between the Local Government Officials, VHV's Network, and Municipal Community Members in Nakhon Phanom Province ***Poonnatree Jiaviriyaboonya***	*Thailand*
SD-25	Health Risk Estimation from Sugarcane Burning Area in Thailand via Geographical Information System Method ***Yaowatat Boongla** and Supichaya Roddee*	*Thailand*
SD-28	Promoting Transit-Oriented Development (TOD) in Bangkok ***Pawinee Iamtrakul**, Paphawarin Chaisamak, Apinya Padon, and Jirawan Klaylee*	*Thailand*
SD-29	The Factors that affect to Marketing Promotion of Hotel Business to Support Senior Tourists in the Northeastern Region ***Wittika Thangchan** and Chuthamat Plermkamon*	*Thailand*
SD-31	Model of Customer Retention for Local Textile Products in Thailand ***Supot Deeboonmee** and Pensri Jaroenwanit*	*Thailand*

13.30 – 16.30 **DEVELOPMENT 4** ***Choun Chom 2***

Session Chairperson: ***Assoc. Prof. Dr. Bundit Limmeechokchai, SIIT - Thammasat University, Thailand***

SD-17	Development of Historic Building Information Modeling (HBIM) from Point Clouds Data for Wat Chedi Yod Thong in Phitsanulok ***Kumpon Subsomboon**, Parinya Apipunyawon, Piyatida Wongyai, Supakorn Punyapachum, Perapong Kaewpoonsuk, and Yodchai Singthong*	*Thailand*
SD-18	Achievement of Paris Agreement in selected Greater Mekong Sub-region Countries: Analyses of Renewable Electricity and Emission Gaps ***Bundit Limmeechokchai,** and Degeorge Dul*	*Thailand*
SD-20	Costs of "Baegu" vegetable plantation as rubber-based and palm-based intercrops ***Puangpen Churintr**, Arus Kongrungchok, and Srisuda Churin*	*Thailand*
SD-21	The Guidelines in Developing the Resources of Learning about Sufficiency Economy ***Sangob Singsunjit**, Mongan Somkuea, and Aubon Chairat*	*Thailand*
SD-23	University Industry Partnership (UIP) model: A Case Study of Thai University ***Panu Buranajarukorn**, Phisut Apichayakul, Sarintip Tantanee, and Orawan S. Aphichayakul*	*Thailand*
SD-26	The Lancang-Mekong Cooperation (LMC) and The Greater Mekong Subregion Economic Cooperation (GMS)	*Thailand*

	Yang Baoyun	
SD-30	A model for implementing blockchain technology in the organic rice supply chain in Northeastern Thailand ***Piyada Daowadueng****, and Pensri Jaroenwanit*	*Thailand*

Guidelines for Paper Presentation

This guideline gives some instructions to authors for their presentation of papers in the *14th GMSARN International Conference 2020* sections. Please be advised that the authors should carefully follow these instructions in order to make the best of your presentation.

- The total presentation time including questions and answers for each paper at the Grand GMSARN International Conference 2020 should be limited to less than 12-15 minutes.

- The maximum number of slides for your presentation should be limited to around 15-20 slides. Do not overload your figures with text and make sure that the figures are clarity in a big audience. It is recommended that you should use font size of 20pt or bigger for all texts and formulae so that the audience can read them clearly.

- Make sure that you use international standard fonts like Times New Roman or Arial in your Power Point (ppt.) file to avoid corrupted presentations due to incompatible font to the local computers.

- Should not use dark color as background in your PowerPoint slides and should use a color of font sharply contrasting with the background.

- Use spelling and grammar available in PowerPoint to check the errors you might have made.

- The use of overhead transparencies is strongly discouraged. A PowerPoint file is the most convenient for both you and the organizers.

- Feel free to include your latest research results in your presentation even if they are not included in your paper before.

- Speak clearly and slowly when presenting. Please remember that most of the persons in the audience are non-native English speakers.

- Computers and beamers are available in each conference room providing PowerPoint and Acrobat Reader software installed on Windows operating system. If you need any other software for your presentation, please contact the Secretary General by email at *gmsarn@ait.ac.th* to check the availability of the software in advance.

- Please try to be presence in the room around 5 minutes in advance of the session in order to copy your file onto the local computer and fill in a presentation form. Staffs will be available to assist you.

- In each session, there will be a Chairperson who will be in charge for introduction of presenters and discussion time for each presentation.

- Please feel free to contact assistant staffs in your presentation room if you need any help for your presentation.

Thank you for your cooperation and we hope you will have your good presentation at the conference.