



Preliminary Oral Presentation Agenda

The 7th ASEAN Smart Grid Congress: Smart Microgrid for ASEAN

Date: 12 – 13 December 2024, Chiang Mai, Thailand

12 December 2024

Room A (Bird House Meeting Hall), Topic: Smart microgrid

Sub-topic: Distributed Generation for Smart Grid and Battery & Energy Management

Session Chairs: Prof. Dr. Nofri Yenita Dahlan (UiTM, Malaysia)

Session Coordinator: UiTM Staff

Dr. Vorachack Kongphet (NUOL, Lao PDR)

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No.	Time	Code	Article Title	Format
1	13:30 – 13:45	DG003	Studying and Analyzing the Economics and Engineering of a 290 kWp Hybrid Wind+Solar System for Electricity Generation at Bann Raya Resort, Racha Island, Phuket, Thailand <i>Waiwit Udayachalerm, Wirachai Roynarin, Worachate Sangsida, Sirisak Pangvuthivanich, Kwanchai Choicharoen, Panu Pratumnopharat</i>	On-site
2	13:45 – 14:00	DG004	E-Infinity Ecosystem: Peer-to-Peer Energy Trading Using X-Changer and Energinx Smart Meters for Reverse Power Flow Prevention <i>Puttapon Somjai, Kittisak Khuwaranyu, Paisarn Muneesawang, Rachasak Phanumpha, Duangkamol Ruen-ngam</i>	On-site
3	14:00 - 14:15	BT001	Comparison of PSO optimization and feedback control methods for energy management in hybrid photovoltaic with grid-tied system <i>Hideki Khakhai, Thipwan Fangsuwannarak, Jirut Rhianprayoon</i>	On-site
4	14:15 – 14:30	BT002	Assessing Techno-Economic Impacts of Hybrid Renewable Energy System With Energy Storage For Campus Buildings In Malaysia Using HOMER <i>Mardhia Adriana, Nofri Yenita Dahlan, Muhammad Azfar Shamil Abd Aziz</i>	On-site
5	14:30 – 14:45	BT003	Evaluating Battery Energy Storage System (BESS) Sizing for Substation Investment Deferral Using Load Profile Analysis in Thailand <i>Temsiri Prompook, Sorawut Jittanon, Nipon Ketjoy, Wisut Chamsa-ard, Chakphed Madtharad, Tawat Suriwong</i>	On-site
6	14:45 – 15:00	CC004	Design of 5 kW Low Speed Wind Turbines for Air Compresses Application. <i>Worachate Sangsida, Wirachai Roynarin, Waiwit Udayachalerm, Sirisak Pangvuthivanich, Kwanchai Choicharoen, Panu Pratumnopharat</i>	On-site
7	15:00 – 15:15	CC006	Design a 100kWh Hybrid Photovoltaic System at UiTM Campus using PVsyst <i>Mohd Husni Mohd Som, Siti Zaliha Mohammad Noor, Khairunisa Nadrah Md Zahir, Suleiman Musa, Nur Syamimi Dzulkamal, Pusparini Dewi Abd Aziz</i>	Online
8	15:15 – 15:30	DG002	Calibration and Performance Analysis of a 50 MW Large-Scale Solar PV System in the Eastern Region of Peninsular Malaysia Across Two Monsoon Seasons <i>Nur Fadhilah Jamaludin, Nofri Yenita Dahlan, Sridhar Sripadmanabhan Indira</i>	Online
9	15:30 – 15:45	DG005	Enhancing Optimal Unit Commitment via Ant Lion Optimizer with Photovoltaic Uncertainty <i>Muhammad Aidil Adha Aziz, Zuhaila Mat Yasin, Zuhaina Zakaria</i>	Online



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Room B (AREC Building), Topic: Energy Management and Material

Sub-topic: Energy Management for Smart Grid, Smart Mobility (EV), and Intelligent Appliances & Smart Building

Session Chairs: Dr. Nono Darsono (BRIN, Indonesia)

Session Coordinator: UiTM Staff

Asst. Prof. Dr. Rotjapun Nirunsin (MJU, Thailand)

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No.	Time	Code	Article Title	Format
1	13:30 – 13:45	EM003	Application of Machine Learning Models in Solar Power Prediction Based on Multilevel Stacking Ensemble Approach <i>Chun-Liang Tung, Chien-Yu Lu, Ta-Ching Chou, Sanyam Kukreti</i>	On-site
2	13:45 – 14:00	EM007	Data-Driven Solutions for Effective Community Energy Monitoring Using a Hybrid Framework of Smart Meters and Surveys <i>Thanachai Sataklang, Hathaithip Sintuya, Worajit Setthapun</i>	On-site
3	14:00 - 14:15	EM008	IoT Monitoring System Development for Collect Building Energy Consumption <i>Narakorn Songkittirote, Thanachai Sataklang, Worajit Setthapun, Hathaithip Sintuya</i>	On-site
4	14:15 – 14:30	EV002	Techno-Economic Feasibility and Environmental Assessment of a Grid-Connected PV System for EV Charging in Brunei Darussalam <i>Sheik Mohammed Sulthan, Ang Swee Peng, B Sri Revathi, Muhammad Norfauzi, Saiful Bahri Hj Md Ja, Aôafar, Law Kah Haw</i>	On-site
5	14:30 – 14:45	SB001	Solar PV Soiling Study <i>Rajasekar Natarajan, Harish Aggarwal, Pokuri Siva Krishna, Murali S, Rashmi Ranjan Das, Chinmaya Sahu</i>	On-site
6	14:45 – 15:00	CC002	Energy Performance Enhancement of the Office Building: Economic and Environmental Impact of Achieving nZEB <i>Bhumitas Hongvityakorn, Pruk Aggarangsi, Prajak Kittirattanaviwat</i>	On-site
7	15:00 – 15:15	SB002	Applications of an Automated Nutrient Solution Chilling System for Growing Hydroponic Lettuces in Tropical Conditions <i>Paween Kriangkasem, Surachai Narrat Jansri, Phatcharida Lawan, Athaphong Phiantae</i>	Online
8	15:15 – 15:30	CC001	Integrated IoT and Machine Learning Framework for Real-Time Monitoring and Mitigation of Industrial Gas Leaks <i>Ashwini kumar, K.C. Sriharipriya, J Christopher Clement, Linga Reddy, G.K. Rajesh</i>	Online
9	15:30 – 15:45	EM005	Harnessing Digital Twins: A New Frontier for Electrical Systems in Industrial Plants <i>Hossein Zeynal, Ahmad Kor, Zuhaina Zakaria</i>	Online
10	15:45 – 16:00	EM006	Development of Test Bed and Communication Technology Evaluation for Advanced Metering Infrastructure (AMI) and Smart Grid applications <i>Shashitheran Karuppiah, Dr.Lo Chin Kim</i>	Online



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Room C (Bamboo Meeting Hall), Topic: Climate Change & Resilience

Sub-topic: Climate Change & Clean Energy, Nanotechnology and Materials for Energy and Environment, and Energy Resilience

Session Chairs: Dr. Kampanart Silva (ENTEC, Thailand)

Session Coordinator: UiTM Staff

Assoc. Prof. Dr. Azlin Mohd Azmi (UiTM, Malaysia)

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No.	Time	Code	Article Title	Format
1	13:30 – 13:45	CC003	A case study on carbon credit trading in photovoltaic systems at the large academy, focusing on break-even point and passive income <i>Suwicha Sokul, Peerapon Chanhom, Keerati Chayakulkheeree, Thipwan Fangsuwannarak</i>	On-site
2	13:45 – 14:00	CC005	Study on measures to promote renewable energy and energy efficiency and conservation towards net-zero carbon emission <i>Kampanat Thapmanee, Khemrath Vithean, Pidpong Janta, Rungtiwa Phoonsuk, Nuwong Chollacoop, Kampanart Silva</i>	On-site
3	14:00 - 14:15	CC010	Biochemical methane potential of co-digestion from food waste and watermelon rinds <i>Titiwath Faksomboon, Kittikorn Sasujit, Jutaporn Chanathaworn, Ratchadaporn Puntharod, Puwadon Chumpoochai, Rotjapun Nirunsin</i>	On-site
4	14:15 – 14:30	NM003	Electrospun chitin-based nano-membrane from mushroom waste for water filtration of nano-plastics removal <i>Shih-Yun CHANG, An-Jie LUAN, Chen-Yeon CHU, Yi-Hsin CHIEN</i>	On-site
5	14:30 – 14:45	ER003	Waste-to-Energy and Potential for Enhancing Regional Energy Resilience <i>Wichuda Pumpoung, Napat Jakrawatana</i>	On-site
6	14:45 – 15:00	CC009	Empowering Remote Communities with Renewable Energy Education: A Game-Based Learning Approach <i>Narakorn S., Wanwiset A., Nattapat L., Thananchai S., Sasiprapha K., Artidtaya M., Surachai N. J., Hathaithip S., Preecha S., Att A., Sutthinan C., Amnat K., Surasak N., Chatree M., Watcharapong W., Panlop S.</i>	On-site
7	15:00 – 15:15	ER001	Impacts of Transformer Saturation Characteristics on Ferroresonance using Ritz Method <i>Muhammad Saád Bin Haji Bini, Swee Peng Ang, Sheik Mohammed Sulthan, Nor Asiah binti Muhamad, Kah Haw Law, Muhammad Norfauzi</i>	Online
8	15:15 – 15:30	ER002	An Investigation on Energy and Electricity Status of Malaysia <i>Wu Zhi Shan, Christina Chin May May, Novita Sakundarini, Akhil Garg</i>	Online
9	15:30 – 15:45	CC007	Floating Photovoltaic (FPV) Project Appraisal for potential Malaysia Reservoirs <i>Siti Zaliha Mohammad Noor, Khairunisa Nadrah Md Zahir, Nurul Iman Arina Razlan Adli, Suleiman Musa, Pusparini Dewi Abd Aziz</i>	Online
10	15:45 – 16:00	CC008	Analysis on Energy Import and Energy Export Patterns of Residential Consumers <i>Siti Maisara Murniyati Muin, Chin Kim Lo, Hui Mun Looe</i>	Online