

AIEI 2026 PROGRAM

Day 1 (May 13, 2026)

(08:00-11:15)

GRAND HALL (S02.01)

virtual access: <https://teams.microsoft.com/meet/47275042657857?p=pqZor4hxsCLCdP4nOs>
Meeting ID: 472 750 426 578 57; Passcode: xD7Es9Am

08:00-08:30	Registration
08:30-09:00	Opening Ceremony
09:00-09:30	Keynote 1: Prof. David Bassir
09:30-10:00	Keynote 2: Assoc. Prof. Dinh Duong Le
10:00-10:15	Coffee Break

Parallel Sessions

(10:15-11:15)

GRAND HALL (S02.01)

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Meeting ID: 472 750 426 578 57; Passcode: xD7Es9Am

Time	ID	Paper	Authors
10:15-10:35	2	Renewable Energy Management in Microgrids Using Reinforcement Learning	Ayush Kabbur, Krish Sharma and Uday Kulkarni
10:35-10:55	5	Design and Analysis of a Single-Switch Energy-Stacking DC-DC Converter for Renewable Energy Integration	Thai Anh Au Tran, Xuan Khanh Ho and Hoai Khanh Ly Le
10:55-11:15	15	Challenges in Solar Power Forecasting: Impact of Sudden Weather Volatility on Existing Systems	Deepankar Kane, Supriya Gupta and Pranay Dharamsare

ROOM S02.02

Virtual access: <https://teams.microsoft.com/meet/41585275290465?p=BvnHUrLnhGtmbpVwRZ>
Meeting ID: 415 852 752 904 65; Passcode: BX7Im2PQ

Time	ID	Paper	Authors
10:15-10:35	3	Automated Detection of Document Alterations using Computer Vision and ML	Gudipadi Shakunthala, B Sabeena, V Archana, Chakali Sumathi and Kammari Sukanya
10:35-10:55	4	MobileNetV3 for Pipeline Welding Defect Detection: A Computer Vision Approach on Noisy RGB Images	Ata Jahangir Moshayedi, Amir Sohal Khan, Ming Jun Zhang, Shuxin Yang, and David Bassir
10:55-11:15	7	Challenges in Hybrid Quantum-Classical Convolutional Neural Networks: Evaluating Qubit Impact on Binary Image Classification	Nguyen Van Nui, Tran Quang Quy, Nguyen Duc Binh, Nguyen Vu Hai and Dao Tran Chung

ROOM S07.05

Virtual access: <https://teams.microsoft.com/meet/43971551539094?p=EdbHYWdyVmnOJQ9m0P>
Meeting ID: 439 715 515 390 94; Passcode: Eh9Pf3z9

Time	ID	Paper	Authors
10:15-10:35	8	Scientometric Analysis of Project Management in the Construction Industry	Pavankumar Korke, Venkataramana Veeramsetty, Manisha Surve and Bhagyashree Kharode
10:35-10:55	9	From Sense to System: AI-Assisted Sensory Design for Sustainable Hospitality	Adriana Sinta Anarita and Sri Rachmayanti
10:55-11:15	12	Impact of Artificial Intelligence on Development of Enterprise Management: A Bibliometric Analysis	Zaira Satpayeva and Langliang Xue

Lunch time

(11:15-13:30)

GRAND HALL (S02.01)

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13:30-14:00	Keynote 3: Prof. Yiliu Liu
14:00-14:30	Keynote 4: Assoc. Prof. Ngoc Duong Vo
14:30-15:00	Coffee Break

Parallel Sessions

(15:00-17:00)

GRAND HALL (S02.01)

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Meeting ID: 472 750 426 578 57; Passcode: xD7Es9Am

Time	ID	Paper	Authors
15:00-15:20	22	Low-cost IoT system for real-time power estimation in small and medium-scale rooftop solar power systems	Kim Anh Nguyen, Quang Linh Nguyen, Thai Anh Au Tran and Minh Hien Ngo
15:20-15:40	23	Safety Threshold Framework and Reliability Quantification of Mobile Low Voltage Loop Closing with Synchronization Check Supervision	Kien Pham Van, Thanh Dang Nhat, Kiet Mai Van Anh, Viet Le Tran Hoang
15:40-16:00	27	Enhanced Model Predictive Control Using Modified Space Vector Modulation for Grid-Connected 3L-NPC Inverters	Quang Huy Nguyen, Anh Tuan Nguyen, Van Vi Nguyen, Khanh Quang Nguyen, Kim Anh Nguyen and Van Quang Binh Ngo
16:00-16:20	29	A Hybrid Metaheuristic Approach for Optimal PV Placement and Sizing in Distribution Networks	Van Thanh Le, Hoang Nhan Nguyen, Vinh Tuong Tran and Dinh Chung Phan
16:20-16:40	34	Optimal Operation Strategy for Microgrid Systems under Renewable Energy Uncertainty	Nguyen Van Tan, Nguyen Van Cong, Ho Le Minh Dat, Le Nguyen Thanh Trung, Truong Thi Bich Thanh, Nguyen Hong Viet Phuong
16:40-17:00	35	Real-Time Operational Assessment Of A Hybrid AC-DC Grid With Wind Integration Under Normal And Faulted Conditions	Trung Hieu Trinh, Hoang Minh Tran, Hieu Thanh Bui, Kim Nhat Tran

ROOM S02.02

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Meeting ID: 415 852 752 904 65; Passcode: BX7Im2PQ

Time	ID	Paper	Authors
15:00-15:20	17	Comparative Analysis of Artificial Neural Networks and Multiple Linear Regression in Electrical Load Forecasting under Limited Data Conditions: A Case Study at Cu Chi Power Company	Quang Minh Huynh and Quang Vinh Luu
15:20-15:40	21	Low-Power Edge AI System for Long-Term Autonomous Mechanical Water Meter Reading on Embedded Devices	Bien Nguyen Quang, Thang Dang Huu, Long Nguyen Tuan, Thanh Nguyen Cong, Duan Luong Cong and Minh Nguyen Ngoc
15:40-16:00	36	A Low-Cost Camera-Based Edge AI System for Fire Detection and Emergency Exit Monitoring on ESP32 with Legacy Infrastructure Integration	Dao Vu Anh, Dung Nguyen Huy, Duong Nguyen Danh, Duc Anh Vu, Duan Luong Cong and Bien Nguyen Quang
16:00-16:20	44	A Multi-Camera Edge AI System for Real-Time Smoke and Fire Recognition Using Lightweight Deep Learning Models	Truc Thi Kim Nguyen, Thanh Huy Phan, Kim Hoang Nguyen, Hoang Mai Nguyen and Dinh Thanh Ngo
16:20-16:40	50	Development of a Real-Time Embedded Device for AC Arc Fault Detection in Household Appliances Using Lightweight Statistical and Spectral Features	Tan Tong Sy, Toan Le Duc, Dao Le Xuan, Anh Do Duc, Bien Nguyen Quang and Duan Luong Cong
16:40-17:00	59	An Application in Health Monitoring Systems: A Deep Learning-based Flu Detection model	Khoa Tran, Ho Si Hung Nguyen, Vy-Rin Nguyen and Hung-Cuong Trinh

ROOM S07.05

Virtual access: <https://teams.microsoft.com/meet/43971551539094?p=EdbHYWdyVmnOJQ9m0P>
Meeting ID: 439 715 515 390 94; Passcode: Eh9Pf3z9

Time	ID	Paper	Authors
15:00-15:20	18	A Hybrid CNN-Transformer with Cross-Attention for Automated Fetal Distress Detection from Cardiotocography	Quoc Phong Dang, Ngoc Dai Nguyen and Quy Thuan Ho
15:20-15:40	19	Beyond AI Performance: A Unified Framework for Analyzing AI Integration in Financial Technology	Arsenii Moshninov and Mikhail Komarov
15:40-16:00	28	A Two-Phase Behavioral Approach to Automated Code Synthesis from Industrial Meta-Models	Naman Jain
16:00-16:20	43	Hierarchical Modeling for Low-Resolution and Ambiguous Thermal Fault Classification	Thanh Chi Nguyen and Truc Thi Kim Nguyen
16:20-16:40	67	Stabilizing GPT-2 Training via an Additional Post-Normalization Layer	Supriya Mandhare, Virendrakumar Dhotre, Prasanna Madwar, Shivam Naikade, Purva Mohite, Sahil Pawar and Sanskar Joshi
16:40-17:00	68	Spectrally-Regularized Graph Network with Disruption-Aware Training for Out-of-Distribution Robust Traffic Forecasting	Khôi Nguyễn Hữu Dương, Tân Lê Duy

VLU's ROOM (6th Floor, Building A)

Virtual access: <https://teams.microsoft.com/meet/4100524041991?p=Rc3nWJiuEhWmuDg7pU>

Time	ID	Paper	Authors
15:00-15:20	6	Dividends of AI-Driven Logistics Reform in Vietnam: A Recursive Dynamic CGE Analysis	Duy Chinh Nguyen, Nhat Duy Lai and Nguyen Chi Duc

15:20-15:40	11	AI-Driven Energy Efficiency versus AI-Induced Energy Demand: A Dynamic CGE Analysis of Vietnam's Twin Transition	Anh Bui-Tuyet, Nhat Duy Lai and Quyen Hua-Thi-Ngoc
15:40-16:00	14	Assessing The Impact of Lng Fuel on The Optimization of Agricultural Logistics Processes and Sustainable Port Operations In Vietnam	Ha Minh Hieu and Ho Thi Trang Nhung
16:00-16:20	13	Machine Learning-Based Classification of ESG News: Environmental Information from Digital Media in Vietnam	Anh Bui-Tuyet, Anh Nguyen-Ngoc-Lan, Nhu Hung Duong and Van Nguyen-Thi-Thu
16:20-16:40	49	Construction of a Feature Dictionary and Optimization of an Artificial Neural Network for ESG Information Classification: A Case Study in Vietnam	Anh Nguyen-Ngoc-Lan, Van Nguyen-Thi-Thu, Nhu Hung Duong and Anh Bui
16:40-17:00	20	Vietnamese Scam Message Detection: A Comparative Analysis of Naive Bayes, PhoBERT, and Hybrid PhoBERT-Char-CNN Models using an AI-Generated Dataset	Phuong Huynh, Long Pham, Hieu Tran, Dung Nguyen and Hieu Bui

**GALA DINER
(18:00)**

Day 2 (May 14, 2026)

8:15-10:45

GRAND HALL (S02.01)

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8:15-8:45			Keynote 5: Prof. Jaafar Gaber
8:45-9:15			Keynote 6: Assist. Prof. Hai Canh Vu
9:15-9:45			Coffee Break

Parallel Sessions

(09:45-10:45)

GRAND HALL (S02.01)

Virtual access: <https://teams.microsoft.com/meet/47275042657857?p=pqZor4hxsCLCdP4nOs>
Meeting ID: 472 750 426 578 57; Passcode: xD7Es9Am

Time	ID	Paper	Authors
09:45-10:05	38	Power Quality Enhancement in Grid-Connected Photovoltaic Systems Integrated with Shunt Active Power Filter Using Modulated Model Predictive Control	Nguyen Van Tan, Nguyen Huu Hieu, Luong Thanh Nhon, Tran Van Quoc, Nguyen Nhat Huu, Trung Thi Bich Thanh, Nguyen Hong Viet Phuong
10:05-10:25	54	DGA-Based Stochastic Degradation Modeling and Maintenance Optimization for Power Transformers	Huy Vu Tran, Dinh Duong Le and Kim-Anh Nguyen
10:25-10:45	46	Application of Deadbeat Current Control for Wind Turbine Systems Using PMSC	Trung Thi Bich Thanh, Doan Minh Nhat, Nguyen Van Tan, Nguyen Hong Viet Phuong, Nguyen Huu Phan and Khuong Thi Ut Thuong

ROOM S02.02

Virtual access: <https://teams.microsoft.com/meet/41585275290465?p=BvnHUrLnhGtmbpVwRZ>
Meeting ID: 415 852 752 904 65; Passcode: BX7im2PQ

Time	ID	Paper	Authors
09:45-10:05	53	A Non-Linear Triple-Stream Self-Operational Framework for Respiratory Sound Classification	Hoang Vo, Thien Quoc Nguyen, Hoang Long Nguyen Van, Quang Thang Ngo, Quang Tan Nguyen, Ho-Si-Hung Nguyen and Hai Canh Vu
10:05-10:25	63	Numerical Design of a Passive Quadrature Phase and Power Splitter Using 2x2 RI-MMI Couplers with a Fixed Phase Shifter for QPSK and Multicarrier OFDM Applications	Thuy Tran, Hung Nguyen Tan and Cao Dung Trung
10:25-10:45	64	Comparison of Fuzzy Logic and ANFIS-Based Pitch Control for Wind Turbines in High Wind Speed Region	Quang Huy Giap, Duc Duc Nguyen, Cong Tan Tran, Nhu Hung Do and Nguyen Chuong Le

ROOM S07.05

Virtual access: <https://teams.microsoft.com/meet/43971551539094?p=EdbHYWdyVmnOJQ9m0P>
Meeting ID: 439 715 515 390 94; Passcode: Eh9PF3z9

Time	ID	Paper	Authors
09:45-10:05	40	A Structured Review of Robotic Arm Systems for Intelligent 3D Printing: Architectures, Control, and Defect Detection	Ata Jahangir Moshayedi, Milo Garbal, Yang Zhicheng, Abel Cherouat and David Bassir
10:05-10:25	41	Review: Thermal data acquisition for 3D cracks characterization and experiment	Ata Jahangir Moshayedi, Anachack Chanthavisouk, Sakdina Chanthavisouk, Quoc Nguyen, Rifcatan Ozbek and David Bassir
10:25-10:45	42	Edge AI for Climate-Aware ET0 Forecasting and Autonomous Precision Irrigation	Horatio Hodouto, Abel Cherouat, Milohum Dzagli and David Bassir

Lunch time

(10:45-13:30)

GRAND HALL (S02.01)

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13:30-14:00			Keynote 7: Prof. Akhil Garg
14:00-14:30			Keynote 8: Prof. Abel Cherouat
14:30-15:00			Coffee Break
15:00-16:00			Parallel Sessions
16:00-16:20			Best Paper Awards & Closing Ceremony

Parallel Sessions

(15:00-16:00)

GRAND HALL (S02.01)

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Meeting ID: 472 750 426 578 57; Passcode: xD7Es9Am

Time	ID	Paper	Authors
15:00-15:20	39	Data-Driven Operational Risk Assessment in Renewable-Rich Power System - An Automated Probabilistic Power Flow and SCADA Data Mining Framework	Phu Nhan Luong, Thi Da Thao Le, Hong Lam Le, Luong Minh Nguyen and Huu Hieu Nguyen
15:20-15:40	61	Dynamic performance analysis of a large-scale AWS-based wave power farm integrated into a single-machine infinite-bus power grid	Quang-Son Vo
15:40-16:00	62	Optimal Integration of Battery Energy Storage Systems for Enhancing Operational Efficiency in Distribution Networks	Ha Minh Khuong Nguyen, Nam Manh Tran, Quang Thong Le and Dinh Truc Ha

ROOM S02.02

Virtual access: <https://teams.microsoft.com/meet/41585275290465?p=BvnHUrLnhGtmbpVwRZ>
Meeting ID: 415 852 752 904 65; Passcode: BX7im2PQ

Time	ID	Paper	Authors
15:00-15:20	65	A Hybrid Long Short-Term Memory Model with Latin Hypercube Sampling for Energy Consumption Optimization in Cement Grinding	Dinh Duong Le, Phi Hung Nguyen, Phuc Nguyen Nguyen, Thi Ai Nhi Nguyen, Thi Ut Thuong Khuong, Kim Anh Nguyen
15:20-15:40	66	Energy Efficiency in Cooling Operation: A case Study Analysis of Computer Room in Vietnam	Trung-Hieu Trinh, Xuan-Truong Nguyen, Minh-Quang Luu and Viet-Ninh Nguyen
15:40-16:00	26	Combining Q-Learning and the Hungarian Algorithm for Multi-Robot Systems in Dynamic Environments	Nguyen Hoang Mai, Vo Ngoc Son, Nguyen Huynh Gia Bao, Vo Van Thinh, Nguyen Thi Kim Oanh

ROOM S07.05

Virtual access: <https://teams.microsoft.com/meet/43971551539094?p=EdbHYWdyVmnOJQ9m0P>
Meeting ID: 439 715 515 390 94; Passcode: Eh9PF3z9

Time	ID	Paper	Authors
15:00-15:20	52	Development of Image Processing Technology in the Design of Smart Medicine Cabinets for Hospitals	Thi-Thu Le, Huu-Bao-Thuan Le, Ho-Si-Hung Nguyen, Huynh-Gia-Bao Nguyen, Van-Hieu Mai and Thi-Hoang-Giang Tran
15:20-15:40	60	Dual-Function WEC-Breakwater: Integrating Coastal Protection and Clean Energy Harvesting towards Net Zero	Hoang Quan Vu, Phan Thi Que Tran, Vo Ngoc Duong, Nguyen Thanh Ha, Doan Thi Ngoc Canh, Sylichantho Jolinar, Dang Cong Quoc Huy, Le Thi Thu
15:40-16:00	30	Design of Crash Alert System to Prevent Motorcycle-Car Door Collision Using Artificial Intelligence	Yaoyang Shiao and Tan-Linh Huynh

VLU's ROOM (6th Floor, Building A)

Virtual access: <https://teams.microsoft.com/meet/41005240401991?p=Rc3nWJiuEhWmuDg7pU>

Time	ID	Paper	Authors
15:00-15:20	10	Artificial Intelligence for Difficulty Prediction in Impacted Mandibular Third Molar Surgery: A Scoping Review	Trong Tinh Nguyen, Cao My Ngan Nguyen, Huu Trieu Trung, Trang Thao Nguyen and Nhat Khue Trung

15:20-15:40	57	Interpretable Machine Learning for Taxi Tipping Behavior Analysis in Urban Mobility Systems	Hui He and Keteng Wang
15:40-16:00	58	Analysis of Flight Delay Factors Based on Multivariate Statistical Methods	Xinyu He and Keteng Wang
16:00-16:20	48	A Lightweight Deterministic Initialization Method for K-Means Clustering	Dong Hung Ha and Thanh Hien Lam
16:20-16:40	24	Machine Learning-Based Prediction of Settled Water Turbidity for Optimizing Alum Dosage in Drinking Water Treatment	Dulashi Fernando, Samadhi Cooray, Praveen Jeyachandran, Dilesha Jayakodi, Prasanna Sumathipala and Salih Fousdeen
16:40-17:00	25	IoT-Integrated Hybrid Machine Learning for Short-Term Raw Water Quality Forecasting	Dulashi Fernando, Samadhi Cooray, Praveen Jeyachandran, Dilesha Jayakodi, Prasanna Sumathipala and Salih Fousdeen

Day 3 (May 15, 2026)

Parallel Sessions

9:45-11:25

VLU's ROOM (6th Floor, Building A)

Virtual access: <https://teams.microsoft.com/meet/41005240401991?p=Rc3nWJiuEhWmuDg7pU>

09:00-09:30		Keynote 9: Dr. Sy Tuan Nguyen	
		Tea break	
Time	ID	Paper	Authors
9:45-10:05	47	Noise-Robust Bearing Fault Diagnosis via Enhanced EFD and QPSOL-Optimized SVM.	Hung Linh Ao, Doan Baoquoc and Le Hoaquoc
10:05-10:25	56	A Physics-Informed CFD-Machine Learning Framework for Piston Bowl Optimization Toward Enhanced Tumble in a Small Diesel Engine	Giang Luong Huynh
10:25-10:45	45	An Integrated Lakehouse Architecture with Data Quality Management Framework for Smart Grid Sensor Data	Thê Phan
10:45-11:05	37	Demand Response Optimization for Vietnamese Manufacturing: Benchmarking Fuzzy Logic Against Metaheuristic Methods	Nhut Tam Tran, Thien Phuc Nguyen, Van Ky Tran and My Duyen Vo Thi
11:05-11:25	16	A Comparative Analysis of GRU and LSTM Networks for Interval-Valued Foreign Exchange Market Time Series Forecasting	Mai Che Thanh Phuoc, Tai Vo Van and Ha Che Ngoc