

MAPR 2025 Conference Program

Venue: Novotel Hotel, Nha Trang, Vietnam

Dates: August 14-15, 2025

Total Papers: 67 (Oral & Poster Presentations)

MAPR 2025 Conference Agenda

Day 1: August 14, 2025

07:45 - 08:15	Registration
08:15 - 08:30	Opening and Welcome Addresses Welcome Speech , Prof. Huu-Thanh Nguyen (SEEE-HUST), General Co-Chair Conference Summary , Prof. Duc-Dung Nguyen, PC Co-Chair
08:30 - 09:15	Keynote Talk 1: Vision Based AI and DX Service Professor Kang-Hyun Jo (University of Ulsan, Korea) <i>Chair: Prof. Duc-Dung Nguyen, VAST</i>

09:15 - 10:15 <i>5 mins/paper presentation</i>	Oral Session 1: Computer Vision for Detection, Recognition and Segmentation (12 papers) <i>Chair: Prof. Chi-Thanh Nguyen, AMST, Vietnam</i> 1. ID 98 - A Semi-Supervised Sparsity-Aware Loss Function for Crack Segmentation 2. ID 11 - Detection of Varroa Mites from Bee Images Using YOLO Architecture 3. ID 59 - Generative One-shot Camouflage Instance Segmentation 4. ID 90 - 3DSMCOS: A 3D Model-Based Synthetic Data Pipeline for Military Camouflaged Object Segmentation with Distractor-Augmented Realism 5. ID 93 - Robust Traffic Vehicle Detection under Real-World Conditions with Misclassified Vehicles Minimization and Weighted Box Fusion 6. ID 104 - Enhanced Class Incremental Semantic Segmentation with New Classifier Pre-Tuning 7. ID 106 - Eliminating False Positives in Single-Human Parsing via Prompt Filtering and Pose-Aware Segmentation 8. ID 127 - Few-Shot Instance Segmentation: An Exploration in the Frequency Domain for Camouflage Instances 9. ID 72 - Plant Species Identification from Pollen Grain Images Using Fusion of Advanced Deep Neural Networks 10. ID 130 - Enhancing Ship Detection in Remote Sensing: A Data Augmentation Approach Using State-of-the-Art Text-to-Image Diffusion 11. ID 1 - Systematic Evaluation of Deep Learning-based Vehicle Detection Methods 12. ID 22 - ResEVIT-Road: An Efficient Model for Road Quality Classification
10:15 - 11:30	Coffee Break & Poster Session 1 (24 papers) All papers from Oral Session 1 and Oral Session 2 will be presented as posters.

11:30 - 12:30 <i>5 mins/paper presentation</i>	Oral Session 2: Vision-Language Models and Multimedia Retrieval (12 papers) <i>Chair: Prof. Thanh Hai Tran, HUST, Vietnam</i> 1. ID 3 - A Multi-Loss Hybrid CNN-ViT Model for Efficient Image Retrieval 2. ID 15 - Att2Search: an Attribute-based Pedestrian Search 3. ID 27 - SATURN: Autoregressive Image Generation Guided by Scene Graphs 4. ID 28 - SAMURAI: Shape-Aware Multimodal Retrieval for 3D Object Identification 5. ID 44 - Movie Character Retrieval with Few Examples 6. ID 46 - UDP-Edit: Union Dual-Prompt Attention for Local Image Editing in Fast-sampling Diffusion Models 7. ID 24 - Integrating Deep Learning And Explainable AI for Interpretable Educational Intervention Analysis 8. ID 86 - Improving Table Structure Recognition Based on Content-Based Post-Processing 9. ID 124 - PerSynth: Personalized Character Video Synthesis from Text Prompts 10. ID 144 - Scalable Fashion Product Retrieval with Multi-Task Fine-Tuned Vision-Language Models and Real-Time Distributed Architecture 11. ID 151 - In Defense of Character-Level Answer Generation Methods for Text-based Visual Question Answering 12. ID 107 - Enhancing User Intent Detection in Chatbots through LLM Distillation
12:30 - 14:00	Lunch Break
14:00 - 14:45	Keynote Talk 2: Model Inversion in Deep Neural Networks Professor Ngai_Man(Man) Cheung, Singapore University of Technology and Design, Singapore <i>Chair: Thanh-Duc Ngo, UIT</i>

14:45 - 15:35 <i>5 mins/paper presentation</i>	Oral Session 3: Tracking and Activity Recognition (10 papers) <i>Chair: Prof. Van-Cuong Pham, PTIT, Vietnam</i> 1. ID 4 - Enhanced MobileNets via Augmentation of Filtering-based Features 2. ID 96 - Enhancing Continuous Student Activity Recognition through Virtual Trajectory and Appearance Matching 3. ID 115 - DSC-SNN: A Depthwise Separable Convolutional Spiking Neural Network for Efficient, Privacy-Preserving Action Recognition from Event-Based Data 4. ID 61 - HAPX-CLIP: Human Activity Recognition with Visual Sequences and Language Prompts 5. ID 35 - Enhancing Multi-Camera People Tracking with Conflict-aware Cosine Tracking and Human Matching Re-assignment 6. ID 37 - UnsMOT: Unified Framework for Unsupervised Multi-Object Tracking with Geometric Topology Guidance 7. ID 103 - Development of an Indoor Position Monitoring System for Rescue Personnel during Emergencies 8. ID 51 - Improving Micro-Expression Recognition with Phase-Aware Temporal Augmentation 9. ID 147 - Efficient Sign Language Recognition with Skeleton Data: A Study of Keypoint Selection, Pose Estimators, and GCN Models 10. ID 109 - Enhancing Video-Only Sign Language Recognition with Wasserstein Knowledge Distillation on the VSL Dataset
15:35 - 16:50	Coffee Break & Poster Session 2 (20 papers) All papers from Oral Session 3 and Oral Session 4 will be presented as posters.

16:50 - 17:40 <i>5 mins/paper presentation</i>	Oral Session 4: AI in Healthcare and Medical Imaging (10 papers) <i>Chair: Prof. Brian Booth, UGent, Belgium</i> 1. ID 23 - Hybrid approach for Chest X-ray diagnosis with automated MLOps pipeline 2. ID 34 - HySUP: Seam-Aware Hand-Body Fusion for Accurate Whole-Body 3-D Reconstruction from a Single Image 3. ID 36 - OTADiff: Ovarian Tumor-Aware Diffusion Model for Ultrasound Image Augmentation and Detection 4. ID 67 - Ovarian Malignance Risk Prediction from Medical Notes: A Case Study in Vietnam 5. ID 68 - Vision-Language Transformer Framework For Automated Medical Imaging Reporting 6. ID 80 - OSNet-DCN: Integrating Deformable Feature Learning for Lesion Tracking in Endoscopic Videos 7. ID 81 - Towards Robust Cancer Diagnosis: A Hybrid Deep Learning Pipeline for Imbalanced Multi-Label Microscopic Image Analysis 8. ID 102 - Multimodal Deep Learning for ECG Heartbeat Classification with SHAP-Based Interpretability 9. ID 108 - CR4Re: Reformulating Binary COPD Classification Using Contrastive Representations 10. ID 99 - Superpixel-based Graph Neural Network with Hierarchical Topology for Retinal Image Grading
18:30 - 21:00	Gala Diner <i>Chair: Prof. Duc-Dung Nguyen, VAST</i>

Day 2: August 15, 2025

08:00 - 08:30	Registration
08:30 - 09:15	Keynote Talk 3: Sensor Fusion Applications Professor Hiệp Q. Luong, (Ghent University, Belgium) <i>Chair: Prof. Thi-Lan Le, HUST</i>
09:15 - 10:10 <i>5 mins/paper presentation</i>	Oral Session 5: Speech, Language, and Multimodal Interaction (11 papers) <i>Chair: Dr. Viet-Cuong Nguyen Intelligent Integration Company Limited, Vietnam</i> 1. ID 5 - Vietnamese Automatic Speech Recognition Utilizing Audio and Visual Data 2. ID 31 - Adapting WavLM for Vietnamese Speaker Diarization in Real-world Conversations 3. ID 63 - Truth or Trick? A Vietnamese Dataset of Adversarial Logic in Geometry 4. ID 78 - Vietnamese Emotion Recognition from Voice and Text: A Confidence-Based Approach 5. ID 82 - SwahiliVQA: A Dataset for Visual Question Answering in Swahili Language 6. ID 33 - Unified Acoustic Representation Learning for Vietnamese Speech Classification Tasks 7. ID 92 - Context-Aware Question Answering for Vietnamese University Admissions via Multi-LLM Architecture 8. ID 105 - Cross-lingual XLSR-Wav2Vec2-based Spoofing Speech Detection for Vietnamese Speech 9. ID 145 - VietX-NLI: A Cross-lingual Natural Language Inference Dataset with Vietnamese as the Source Language 10. ID 12 - Can LLMs Play Ô Ăn Quan Game? A Study of Multi-Step Planning and Decision Making

	11. ID 32 - Analyzing the Correlation and Impact of Speech Evaluation Metrics on Real-World Speaker Verification and Speech Recognition
10:10 - 11:25	Coffee Break & Poster Session 3 (23 papers) All papers from Oral Session 5 and Oral Session 6 will be presented as posters.
11:25 - 12:25 <i>5 mins/paper presentation</i>	Oral Session 6: Cybersecurity, and Blockchain (12 papers) <i>Chair: Prof. Huong-Giang Vu, HUST, Vietnam</i> 1. ID 38 - PowerGNN: A Source Code Structural And Textual Awareness Approach For Identifying Malicious PowerShell Scripts 2. ID 52 - RAG-SmartVuln: Enhancing Smart Contract Vulnerability Detection via Retrieval-Augmented LLMs 3. ID 53 - Smart Contract Vulnerability Detection using Prompt Engineering with Reasoning Models 4. ID 66 - Multimodal Windows Malware Detection via Hybrid Analysis and Enriched Graphs: Effectiveness and Explainability 5. ID 71 - ChainFLIP: A Unified Framework Integrating Blockchain, Federated Learning, and IPFS for Secure Supply Chain Management 6. ID 112 - Multimodal Fusion for Vulnerability Detection: Integrating Sequence and Graph-Based Analysis with LLM Augmentation 7. ID 122 - LLM-Based Compliance Analysis of Declared Policies and Actual Cookie Usage on Websites 8. ID 140 - Unsupervised Malicious Domain Detection Using Auto-Encoder Models with Reconstruction Error 9. ID 49 - Dropout Attacks on Knowledge Distillation 10. ID 54 - Undermining Trust: How Bit-Flip Attacks Compromise Anomaly-based Network Intrusion Detection Systems 11. ID 77 - Forensic Challenges in Face Manipulated Videos 12. ID 139 - Adversarial Robustness Evaluation of a Vietnamese Handwriting OCR System

12:25 - 14:00	Best Paper Awards Closing Ceremony
12:45 - 14:00	Farewell Lunch