

**SOICT 2024 TECHNICAL PROGRAM
POSTER PRESENTATION
13-14 December 2024
Furama Resort, Danang, Vietnam**

ID	Authors	Title	Track	Poster Session	Day
172	Thanh Pham Dinh and Tuan Anh Do	A hybrid multifactorial evolutionary algorithm for the minimum s-Club cover problem	AI Foundations and Big Data	1	13/12/2024
305	Ryan E. Himes, Hai Anh Tran and Truong X. Tran	Leveraging Dynamic Graph Word Embedding for Efficient Contextual Representations	AI Foundations and Big Data	1	13/12/2024
2983	Hoang Long Nguyen and Viet-Trung Tran	BKrawler: A Scalable Web Data Extraction System Using Weak Supervision	AI Foundations and Big Data	1	13/12/2024
3256	Trong Hop Dang, Xuan Hoang Nguyen, Van Manh Nguyen, Manh Hung Hoang, Long Giang Nguyen and Dinh Sinh Mai	Border Fuzzy C-Means Clustering Algorithm	AI Foundations and Big Data	1	13/12/2024
3778	Quang Van Tran, Van Bich Nguyen and Ngoc Hoang Luong	On the Effects of Training Objectives of Multi-agent Reinforcement Learning for Energy Consumption in Residential Buildings	AI Foundations and Big Data	1	13/12/2024
4510	Long Doan, An Nguyen and Hanh Du	GCGE: GAN+CFM-powered Data Augmentation and GBT Ensemble Learning for Improving Diabetes Mellitus Prediction	AI Foundations and Big Data	1	13/12/2024
5528	Kosuke Wakasugi, Yu Suzuki, Tadahiko Kumamoto and Akiyo Nadamoto	Analysis of Behavioral Facilitation Information During Typhoon Period Based on Victim Attributes	AI Foundations and Big Data	1	13/12/2024
7655	Tho Tran Duc, Huy Nguyen Trong and Huong Le Thanh	Improving Quality of Vietnamese to Khmer Neural Machine Translation Using Multi-stage Fine-tuning Strategy	AI Foundations and Big Data	1	13/12/2024
8356	Ngoc Dai Tran, Duc Manh Phan, Van Dat Ngo and Xuan Nam Cao	Developing A Vietnamese Regional Voice Dataset and Benchmark For Region Recognition Based On Speech	AI Foundations and Big Data	1	13/12/2024
9839	Toan Nguyen, Dat Nguyen and Ha Nguyen	Enhancing Retrieval Augmented Generation with Hierarchical Text Segmentation Chunking	AI Foundations and Big Data	1	13/12/2024
9863	Trung Hai Ha, Thi Nga Dao, Chi Thanh Nguyen, Quang Kien Trinh and Deepu John	A Novel Gradient-based Defense Method against Model Poisoning Attacks in Federated Learning	AI Foundations and Big Data	1	13/12/2024
2373	Cong Thang Pham and Minh Nhat Phan	Dual-Domain Reconstruction Network for Enhancing Sparse-View and Low-Dose CT Imaging	AI Foundations and Big Data	1	13/12/2024
2203	Hanh Nguyen Thi, Cuong Van Duc, Tung Doan Duy, Son Nguyen Van, Mai Binh Thi Quynh and Thang Nguyen Xuan	H-LSHADE: An Efficient Hybrid Approach for Solving Heterogeneous Target Coverage in Visual Sensor Networks	Networking and Communication Technologies	1	13/12/2024
7607	Nguyen Xuan Tung, Le Tung Giang, Hwang Won Joo and Trinh Van Chien	Power and Subcarrier Optimization for Heterogeneous QoS Requirement in Wireless Sensor Networks	Networking and Communication Technologies	1	13/12/2024
2529	Dinh Minh Hieu Phan and Ngoc Hoang Luong	Developing a Mobile Virtual Assistant using Large Language Models for Task Automation	Software Engineering	1	13/12/2024
3838	Nham Cao Thi, Tien Nguyen Nhut and Thanh Binh Nguyen	Enhancing Software Fault Localization with Variational Autoencoder and Residual Neural Networks	Software Engineering	1	13/12/2024
6014	Thi-Huong-Giang Vu and Duc-Lam Dinh	Towards a Unified Delegated Authorization Framework for Microservice-based ERP Systems	Software Engineering	1	13/12/2024
7552	Minh Chau Nguyen and Ngoc Hoang Luong	Diffusion-Based Purification for Adversarial Defense in Medical Image Classification	Multimedia Processing	2	13/12/2024
1162	Minh-Loi Nguyen, Long-Bao Nguyen, Van-Hieu Huynh and Trung-Nghia Le	Hybrid Compression: Integrating Pruning and Quantization for Optimized Neural Networks	Multimedia Processing	2	13/12/2024
1364	Duc Anh Nguyen, Hai Dang Pham, Ba Duy Vu and Ngoc Hoa Nguyen	Enhancing Unsupervised Person Re-identification with Multi-View Image Representation	Multimedia Processing	2	13/12/2024
3133	Y-Hop Nguyen and Trung-Nghia Le	Decoding Deepfakes: Caption Guided Learning for Robust Deepfake Detection	Multimedia Processing	2	13/12/2024
3893	Yuchen Liu, Eiji Kamioka and Tan Phan Xuan	Distortion-Resilient DIBR for Novel View Synthesis from a Single Image	Multimedia Processing	2	13/12/2024
3912	Cong Thang Pham, An Hung Nguyen, Quoc Cuong Nguyen and Minh Nhat Phan	DehazeCLNet: A Contrastive Learning Framework with Advanced Feature Extraction for Image Dehazing	Multimedia Processing	2	13/12/2024
4207	Mai Dao, Son Nguyen, Duy Le, Cong Tran and Cuong Pham	A Lightweight End-to-End Multi-task Learning System for Vietnamese Speaker Verification	Multimedia Processing	2	13/12/2024
4689	Phong Hai Tran and Ngoc-Thao Nguyen	Boosting Image Super-Resolution: Incorporating Locally-enhanced FFN and Data Augmentation in the Swin Transformer architecture	Multimedia Processing	2	13/12/2024
4978	Xuân Cường Ngô and Tiến Dũng Mai	Distribution-Guided Object Counting with Optimal Transport and DINO-Based density Refinement	Multimedia Processing	2	13/12/2024
6675	Van-Truong Nguyen, Nhu-Nghia Bui, Dinh-Manh-Cuong Tran, Thai-Viet Dang and Tan Phan Xuan	FDE-Net: Lightweight Depth Estimation for Monocular Cameras	Multimedia Processing	2	13/12/2024
7160	Hoai-Danh Vo and Trung-Nghia Le	Minimalist Preprocessing Approach for Image Synthesis Detection	Multimedia Processing	2	13/12/2024
9899	Kunal Agrawal, Vatsa Patel, Reema Tharra, Trung-Nghia Le, Minh-Triet Tran and Tam Nguyen	Motion Analysis in Static Images	Multimedia Processing	2	13/12/2024
0488	Xuan-Bach Mai, Hoang-Tung Vu, Hoang-Minh Nguyen-Huu, Quoc-Nghia Nguyen and Trung-Nghia Le	AI-Generated Image Recognition via Fusion of CNNs and Vision Transformers	Multimedia Processing	2	13/12/2024

2943	Vu Trung Duong Le, Anh Kiet Pham, Hoai Luan Pham, Vu Tuan Hai and Yasuhiko Nakashima	OSA: FPGA-based Octa-core SPHINCS+ Accelerator for IoT Security Applications	Recent Advances in Cyber Security	2	13/12/2024
3383	Phi Ho Truong, Ngoc Minh Pham, Duy Trung Pham and Nhat Hai	Nguyen. AYO-GAN: A novel GAN based adversarial attack on YOLO object detection models	Recent Advances in Cyber Security	2	13/12/2024
8424	Van-Thanh Huynh, Phuoc-Hung Vo and Thai-Son Nguyen	A Novel Reversible Data Hiding for JPEG Images Based on Zero AC Coefficients Shifting	Recent Advances in Cyber Security	2	13/12/2024
2677	Doan Phuoc Mien, Vu Tran and Ngo Van Sy	Forecasting Traffic Flow under Uncertainty: A Case Study in Da Nang	Applied Operations Research and Optimization	3	14/12/2024
5252	Hien Nguyen Minh, Ha Tang Vinh, Hoang Le and Diep Thi Hoang	Exploring an emerging evolution computing based feature selection method for multiomic brain cancer biomarker discovery	Applied Operations Research and Optimization	3	14/12/2024
0566	Dang Quang, Ginel Dorleon and Andrew Colarik	An Image Tells a Thousand Words	Generative AI	3	14/12/2024
1038	Tam Nguyen Vu Khai, Bao Le Tran Gia, Ngan Tran Kim Ngoc, Khanh Hoang Ngoc, Nguyen Pham Hoang Le, Quyen Nguyen Huu, Duy Phan The and Van-Hau Pham	MAVERICS: Multimodal Advanced Visual Event Retrieval with Integrated CPU-Optimized Search	Lifelog and Multimedia Event Retrieval	3	14/12/2024
2740	Quang-Khai Bui-Tran, Duc-Huy Ha, Minh-Hung Nguyen, Phuc-Hung Dang, Thien-An Trieu-Hoang and Tien-Huy Nguyen	Enhanced Video Retrieval System: Leveraging GPT-4 for Multimodal Query Expansion and Open Image Search	Lifelog and Multimedia Event Retrieval	3	14/12/2024
3510	Phat To Anh, Minh Truong Thanh, Hoan Doan Nguyen Tran and Khanh DUY Nguyen	ReViMM: Enhanced Video Retrieval with Reweighting Mechanism for Multi-Modal Queries	Lifelog and Multimedia Event Retrieval	3	14/12/2024
3600	Dien Tran Xuan, Anh Hoang Tien, Tai Duong Van and Kien Nguyen Chi	LLM-Powered Video Search: A Comprehensive Multimedia Retrieval System	Lifelog and Multimedia Event Retrieval	3	14/12/2024
3896	Bao Son Tran, Tien Duong and Toan Nguyen	Interactive Video Retrieval System for AI Challenge 2024 Using CLIP, RAM++, and LLM-Enhanced Tag Matching	Lifelog and Multimedia Event Retrieval	3	14/12/2024
4307	Truong Dinh, Binh Dinh, An Dao, Bao Trinh and Nguyen Vu	Transforming Video Search: Leveraging Multimodal Techniques and LLMs for Optimal Retrieval	Lifelog and Multimedia Event Retrieval	3	14/12/2024
5075	Pi-Dieu Sam, Hai Dang Nguyen, Thanh Nhan Vo, Truong Minh Dang Le and Quang Thien Nguyen	Real-Time Multi-User Lifelog and Multimedia Event Retrieval Application System Using WebSocket Protocol	Lifelog and Multimedia Event Retrieval	3	14/12/2024
6040	Khac Toan Nguyen, Vu-Linh Nguyen, Tuyet Hue Tran, Nguyen Dang Khoa Le, Cao Ky Long U, Trong Quy Bui and Tan-Cong Nguyen	Video Retrieval System with Synergized Image Embeddings and RAG-Driven Enhancements	Lifelog and Multimedia Event Retrieval	3	14/12/2024
7090	Thinh-Phat Vo, Quang-Thang Duong, Quoc-Thang Nguyen, Dang-Khoa Mai and Nguyen-Khang Ly	A Comprehensive Video Event Retrieval System for Vietnamese News: Integrating CLIP ViT, TASK-former, Transcripts, and OCR	Lifelog and Multimedia Event Retrieval	3	14/12/2024
7853	Hai-Chan Nguyen, Tuong-Duy Nguyen-Dang, Phuong-Thuy Le-Nguyen, Long Huynh and Khai-Hung Do	LameFrames: Optimizing Video Retrieval Through Strategic Integration and Individual Strategy Enhancement	Lifelog and Multimedia Event Retrieval	3	14/12/2024
8252	Viet Hang Duong, Tong Dang Khoa Huynh, Minh Quan Tran, Nguyen Khang Nguyen, Canh Nhat Le and Thanh Hung Nguyen	MMMSVR: An Advanced Video Retrieval and Question Answering System	Lifelog and Multimedia Event Retrieval	3	14/12/2024
8539	Nam Khanh Tran, Minh Loi Duong, Le Duc Phu Phan, Ngoc Thien An Nguyen and Minh Duc Huynh	CLIP-Enhanced Lifelog Retrieval System: Robust Multi-Modal Media Search with Real-Time Performance	Lifelog and Multimedia Event Retrieval	3	14/12/2024
0086	Dat Do Quoc, Duy Nguyen Truong, Tu Nguyen Minh, Thao Nguyen Thi Ngoc, An Le Kha, Binh Tran Le Hai, Tri Pham Xuan, Duong Tran Ham, Tin Huynh and Kiem Hoang	Enhanced Video Event Retrieval through Adaptive Multi-Model Fusion with Large Language Models	Lifelog and Multimedia Event Retrieval	3	14/12/2024
0413	Duc Ngo Quang, Huy Tran Le, Long Nguyen Hai and Linh Vu Tung	MAVEN: Video Retrieval System using A Multi-Agent Visual Exploration Network	Lifelog and Multimedia Event Retrieval	3	14/12/2024
1256	Yukinobu Hoshino, Namal Rathnayake, Dang Tuan Linh and Upaka Rathnayake	Flow Velocity Analysis of Upstream Rivers Using Farneback Optical Flow and STIV Techniques with Drone Data	AI Applications	4	14/12/2024
1393	Duc Huy Nguyen, Tran Quoc An Truong and Long Tran-Thanh	Faster, Larger, Stronger: Optimally Solving Employee Scheduling Problems with Graph Neural Networks	AI Applications	4	14/12/2024
1509	Tung Vu, Hung Nguyen, Nam Nguyen and Cong Tran	Advancing Geopolitical Map Analysis: An Intelligent System for Territorial Integrity Verification	AI Applications	4	14/12/2024
2613	Truc Thi Kim Nguyen, Van Nang Hung Nguyen, Nam Van Hoang and Tuan Minh Pham	Improving Human Action Recognition Using Quaternion Discrete Fourier Transform in Transfer Learning	AI Applications	4	14/12/2024
4031	Vu Vo, Ngoc To, Thanh Nguyen, Nhat Phung, Quoc Ngo, Dinesh Kumar and Minh Dinh	Cardio Care: A Vision Transformer Cardiac Classification based on Electrocardiogram Images and Signals	AI Applications	4	14/12/2024
4804	Phan-Khai Dao, Van-Tan Vu and Quoc-Trung Bui	A Tool for Preventing Consanguineous Marriages Using Vietnam's National Residents Database	AI Applications	4	14/12/2024
5505	Christoph Wittner, Gabriele Kotsis and Ismail Khalil	Optimizing Smart Grids with Reinforcement Learning for Enhanced Energy Efficiency	AI Applications	4	14/12/2024
5707	Nhat-Trinh Le, Nhat-Tan Thai and Cao Vu Bui	Benchmarking Real-Time Object Detection: Evaluating YOLO and RT-DETR on Speed, Accuracy, and Efficiency	AI Applications	4	14/12/2024
6309	Phuc Nguyen, Van-Manh Thai, Xuan-Nguyen Pham and Trong-Le Do	Progressive Retention Sampling for Sequence Generation based Scene Text Spotting	AI Applications	4	14/12/2024
6326	Bao Nguyen-Van, Tuan Le-Anh and Quan Le-Trung	Development of an Edge-Computing-Based Intelligent Service Framework for Smart Camera Applications	AI Applications	4	14/12/2024
6449	Nhat Phan Minh, Toan Dinh Minh, Anh Ho Quoc Thien, Nhi Nguyen Bao Thuc and Hieu Nguyen Van	MedCapNet: A Novel Approach to Medical Image Captioning	AI Applications	4	14/12/2024
7344	Thai Nguyen, Huong Le and Hoan Nguyen	Contrastive Perturbation Enhancement for LLM-Based Machine Translation	AI Applications	4	14/12/2024
7593	Nguyen Cuong Phat, Doan Chanh Thong and Nguyen Tan Tran Minh Khang	Traffic Anomaly Detection under Extreme Weather from Aerial Images	AI Applications	4	14/12/2024

7716	Long Nguyen and Tho Quan	URAG: Implementing a Unified Hybrid RAG for Precise Answers in University Admission Chatbots - A Case Study at HCMUT	AI Applications	4	14/12/2024
0209	Minh Tai Pham Nguyen, Thanh Binh Bui Ngoc, Duy Nam Nguyen Quoc, Trong Nhan Le, Thi Hong Tran and Minh Khue Phan Tran	EPC-YOLOv7: The proposed one-stage detector for aerial scenario detection	AI Applications	4	14/12/2024
0272	Tuan Dat Nguyen, Tri Thanh Nguyen, Van Chien Trinh, Hoang Minh Chau Pham, Ha Quyen Phan, Cong Thuan Do, Van Duc Nguyen and Trung Hai Nguyen	A Low-Cost EEG-Based System for Measuring and Forecasting Levels of Alertness with Long Short-Term Memory	AI Applications	4	14/12/2024
0446	Uyen Vuong, Hai Nguyen, Hieu Dao, Hung Nguyen and Cong Tran	Real-Time Multi-Face Emotion Recognition for Enhancing Student Engagement in Classroom Environments Using Low-Power IoT Devices	AI Applications	4	14/12/2024
7646	Thanh Long Nguyen, Manh Quang Do and Ba Nghien Nguyen	MEPC: Multi-level Product Category Recognition Image Dataset	Multimedia Processing	4	14/12/2024