

SOICT 2024 TECHNICAL PROGRAM
13, 14 December 2024
Furama Resort, Danang, Vietnam

Time	Friday, 13 December 2024				
8:00	REGISTRATION				
8:30	CONFERENCE OPENING Venue: Conference Hall				
8:40	KEYNOTE I - CONFERENCE HALL <i>Gopal Ramchurn, University of Southampton, United Kingdom</i>				
9:20	KEYNOTE II - CONFERENCE HALL <i>Nitesh V Chawla, University of Notre Dame, United States</i>				
10:00	GROUP PHOTO				
10:10	COFFEE BREAK				
10:40	SOICT Session 4A Networking and Communication Technologies & Software Engineering	SOICT Session 4B AI Foundations and Big Data	SOICT Session 4C Multimedia Processing	SOICT Session 4D Recent Advances in Cyber Security	POSTER EXHIBITION (Day 1)
10:40	Stefan Pham, Niklas Harrbeck, Minh Nguyen, Louay Bassbous, Stefan Arbanowski and Stephan Stiglich An Evaluation of HTTP/3 and WebTransport over QUIC in Live Low Latency Video Streaming	Takahiro Komamizu ASC: Aggregating Sentence-level Classifications for Multi-label Long Text Classification	Minh-Kha Nguyen, Trung-Hieu Do, Kim Anh Phung, Thao Thi Phuong Dao, Minh-Triet Tran and Trung-Nghia Le KidRisk: Benchmark Dataset for Children Dangerous Action Recognition	Thi-Huong-Giang Vu, Hai-Nam Hoang and Thanh-Quang Le A User Privacy Risk - Driven Approach to Web Cookie Classification	
11:00	Anh Quan Le and Khanh-Van Nguyen A MAC Protocol for multi-cluster scheduling based on geographical segmentation and Precoloring Extension	Thu Phuong Tran Thi, Vinh Nguyen Van, Thai Nguyen Phuong, Quy Nguyen Minh and Anh Quan Nguyen Duc VSum-HB: A Vietnamese Text Summarization Dataset For Reinforcement Learning From Human Feedback	Minh-Khoa Le-Phan, Minh-Hieu Le-Nguyen, Lan Vo, Liem Le-Quang and Trong-Le Do Ensemble Learning for Improving Generalization of Deepfake Detection	Quan Nguyen Nhat, Thanh Pham Trung, Thanh Tran Nguyen Tien, Quyen Nguyen Huu, Duy Phan The and Van-Hau Pham MADFuzz: A Study on Automatic Exploitation of Smart Contract Vulnerabilities Using Multi-Agent Reinforcement Learning-guided Fuzzing	
11:20	Thiem Nguyen Ba, Binh Nguyen Thanh and Viet-Trung Tran CoverNexus: Multi-Agent LLM System for Automated Code Coverage Enhancement	Trang Pham Quynh, Tai Pham Ba Tan, Doan Dang Thai and Ngoc Bui Nguyen Minh Exploring Vegan Dining Experiences: Insights from User-Generated Content Analysis	Minh Duy Phan, Minh Huan Le, Minh Triet Tran and Trung Nghia Le Language-Guided Video Object Segmentation	Ha La Thi and Hai Tran Hoang TL-SOINN: A Transfer Learning-Enhanced Self-Organizing Incremental Neural Network for Network Intrusion Detection	
11:40	Cong Thuan Do and Hoang Anh Nguyen Optimizing Winograd-based Convolution on GPUs	Thi-Thu-Hang Truong and Trung-Kien Tran Impact of Style Transfer Approaches on Synthetic Data for Military Camouflaged Object Detection	Duc-Vu Nguyen, Thang Chau Phan, Quoc-Nam Nguyen, Kiet Van Nguyen and Ngan Luu-Thuy Nguyen An Attempt to Develop a Neural Parser based on Simplified Head-Driven Phrase Structure Grammar on Vietnamese	Quyen Nguyen Huu, Son Ngo Duc Hoang, Hien Do Hoang, Duy Phan The and Van-Hau Pham SeFed-IDS: A Collaborative Intrusion Detection System Utilizing Semi-Supervised Federated Learning and Data Augmentation	
12:00	LUNCH				
13:30	KEYNOTE III - CONFERENCE HALL <i>Zhou Minghui, Peking University, China</i>				
14:10	SOICT Session 6A AI Applications	SOICT Session 6B AI Foundations and Big Data	SOICT Session 6C Multimedia Processing	SOICT Session 6D Recent Advances in Cyber Security	

14:10	Cao Thanh-Tung, Truong Van-Duy, Thi Thu Huong Nguyen, Emie Verleene, Le Minh-Hung, Nguyen Duc-Anh, Nguyen Thanh-Tung, Dao Viet-Hang and Vu Hai A combination of YOLO and OSNet Re-ID neuronal networks for tracking abnormalities in Upper Gastrointestinal Endoscopy Videos	Hoang-Thang Ta BSRBF-KAN: A combination of B-splines and Radial Basis Functions in Kolmogorov-Arnold Networks	Phat Lam, Lam Pham, Truong Nguyen, Dat Ngo, Thinh Pham, Tin Nguyen, Loi Khanh Nguyen and Alexander Schindler Towards Unsupervised Speaker Diarization System for Multilingual Telephone Calls Using Pre-trained Whisper Model and Mixture of Sparse Autoencoders	Nguyen Manh Tuan, Van Loi Cao and Dang Le Dinh Trang Log-based Representation Transferable Learning for Cross-System Anomaly Detection	POSTER EXHIBITION (Day 1)
14:30	Quynh-Trang Pham Thi, Ngoc-Huyen Ngo and Thanh-Hai Dang Integrating Graph and Transformer-Based Models for Enhanced Chemical-Drug Relation Extraction in Document-Level Contexts	Thai Huy Nguyen and Ngoc Hoang Luong Diverse Adversarial Samples for Text-to-Image Generation via Quality-Diversity Optimization	Vinh-Hien D. Huynh, Chau-Anh Le, Chau M. Truong, Y Thien Huynh and Quy T. Nguyen Domain Generalization in Vietnamese Dependency Parsing: A Novel Benchmark and Domain Gap Analysis	Tran Dinh Kien Giang, Hoang Duy Anh, Bui Trong Tung, Tong Van Van and Tran Quang Duc A Deep Learning Approach to Early Identification of Remote Access Trojans	
14:50	Hai Le, Trong-Thuan Nguyen and Minh-Triet Tran MedGraph-RPE: Graph-Based Medical Segmentation Enhanced by Novel Relative Positioning Encoding	Xuan-Vu Le, Tuan-Kiet Mai-Van, Cao-Cuong Nguyen and Minh-Triet Tran Contour-enhanced Segmentation: A Novel Approach for Ambiguous Boundary in Polyp Segmentation	Khang Vo Hoang Nhat, Duc Nguyen Phan Tri, Thong Nguyen Thanh and Tho Quan Thanh TI-JEPA: An Innovative Energy-based Joint Embedding Strategy for Text-Image Multimodal Systems	Logan Rush, Marina Schmid and Georgios Raptis Privacy Challenges in Genomic Data: A Scoping Review of Risks, Mitigation Strategies, and Research Gaps	

COFFEE BREAK

15:40	SOICT Session 8A AI Applications	SOICT Session 8B AI Foundations, Big Data, and Multimedia Processing	SOICT Session 8C Multimedia Processing	SOICT Session 8D Recent Advances in Cyber Security	POSTER EXHIBITION (Day 1)
15:40	Thi Thu Hong Phan and Hung Thinh Hoang Predicting Bee Swarming: Leveraging Machine Learning and Audio Feature Extraction	Khoa Tran, Linh Ly and Ngoc Hoang Luong Adversarial Robustness of Medical Image Classifiers via Denoised Smoothing	Huynh-Sang Nguyen, Nhat-Minh Truong and Minh-Triet Tran Unifying Convolution and Self-Attention for Liver Lesion Diagnosis on Multi-phase Magnetic Resonance Imaging	Van Le, Minh Tran Hai Nhat, Minh Tran Dang Quang and Tung Bui An Efficient Explainable Unsupervised Machine Learning Approach for Network Intrusion Detection in IoMT	
16:00	Jean Pool Pereyra Principe, Andreas Fischer and Anna Scius-Bertrand Post-Correction of Handwriting Recognition Using Large Language Models	Trong-Hieu Nguyen-Mau, Phu-Thi Kim-Trang, Minh-Triet Tran and Hai-Dang Nguyen DOLG-CNet: Deep Orthogonal Fusion of Local and Global Features combined with Contrastive Learning and Deep Supervision for Polyp Segmentation	Minh-Khang Nguyen, Viet-Tham Huynh, Thuy-Giang Thi Vo and Minh-Triet Tran Knowledge Distillation for Lumbar Spine X-ray Classification	Do Quang Trung, Pham Thai Bao, To Trong Nghia, Pham Van Hau and Phan The Duy A Study On Explainable Graph Presentation Learning With Semantic Features Embedding For Windows Malware Detection	
16:20	Ha Dung Nguyen, Hoang Anh Nguyen Thi and Thanh Binh Nguyen A Proposed Large Language Model-Based Smart Search for Archive System	Phuc-Tan Nguyen, Hieu Nguyen, Minh-Triet Tran and Trung-Nghia Le VisChronos: Revolutionizing Image Captioning Through Real-Life Events	Quang-Khai Le, Cong-Long Nguyen, Minh-Triet Tran and Trung-Nghia Le MythraGen: Two-Stage Retrieval Augmented Art Generation Framework	Dat Pham Tran Tien, Duy Phan The and Van-Hau Pham A Study on Efficient Provenance-Based Intrusion Detection System using Few-shot Graph Representation Learning	
16:40	Viet Nguyen Quoc and Oanh Nguyen Thi SCA-DS: Face Anti-Spoofing Leveraging Enhanced Spatial and Channel-wise Attention and Depth Supervision	Kunal Agrawal, Vatsa Patel, Ian Cannon, Minh-Triet Tran and Tam Nguyen Motorcycle Helmet Detection Benchmarking	Bao Ly Tran Hoang, Minh Le Thanh and Khanh-Duy Nguyen Towards Real-Time Open World Instance Segmentation	Le Tran Gia Bao, Tran Thanh Phong, Pham Thai Bao, Doan Minh Trung, Do Thi Thu Hien, Pham Van Hau and Phan The Duy An Approach of Fine-Tuning Language Models and Handling Long Sequences for Efficiently API Call Analysis in Recovering Windows Malware	
17:00		Thien-Phuc Tran, Minh-Quang Nguyen and Minh-Triet Tran A Simple Approach towards Frame Filtering for Efficient Gaussian Splatting			

Time	Saturday, 14 December 2024
8:00	REGISTRATION
8:30	KEYNOTE IV - CONFERENCE HALL <i>Timothy Baldwin, MBZUAI, United Arab Emirates and The University of Melbourne, Australia</i>
9:10	KEYNOTE V - CONFERENCE HALL <i>Yasuyuki Matsushita, Osaka University, Japan</i>
9:50	COFFEE BREAK

10:20	SOICT Session 12A Generative AI	SOICT Session 12B Lifelog and Multimedia Event Retrieval	SOICT Session 12C Human Computer Interaction and Intelligent Interactive Systems	SOICT Session 12D Applied Operations Research and Optimization	POSTER EXHIBITION (Day 2)
10:20	Son Pham Tien, Hieu Nguyen Doan, An Nguyen Dai and Sang Dinh Viet Improving Vietnamese Legal Document Retrieval using Synthetic Data	Kiet Pham Gia, Nhi Nguyen Truong Cong, Long Nguyen Huynh Phi, Vinh Nguyen Quoc, Phuong Le Tran Song, Binh Tran Le Hai, Tri Pham Xuan, Duong Tran Ham, Tin Huynh and Kiem Hoang	Viet Hoang Nam Nguyen, Bao Tu Tran, Minh Vu Ton That and Chi Thanh Vi Now I Know What I am Eating: Real-time Tracking and Nutritional Insights Using VietFood67 to Enhance User	Hoang Giang Pham, Tien Mai and Minh Hoàng Hà Constraint Programming-Based Cutting Plane Algorithm for a Combination of Orienteering and Maximum Capture Problem	
10:40	Chau Nguyen Minh and Dinh Viet Sang A Diffusion Model for Personalized Text-to-Image Generation	Huy M. Le, Dat Nguyen Tien, Khang Le Duy, Tuan Nguyen Dang Quang, Toan Nguyen Khanh, Tuyen Nguyen and Binh T. Nguyen Fustar: Divide and Conquer Query in Video Retrieval System	Hoang-Phuc Nguyen, Dinh-Khoi Vo, Trong-Le Do, Hai-Dang Nguyen, Tan-Cong Nguyen, Vinh-Tiep Nguyen, Tam V. Nguyen, Khanh-Duy Le, Minh-Triet Tran and Trung-Nghia Le EPEdit: Redefining Image Editing with Generative AI and User-Centric Design	Ba Luat Le, Hoang Giang Pham and Thuy Anh Ta Influence Maximization with Fairness Allocation Constraint	
11:00	Petruta-Simina Coroian, Gabriele Kotsis and Ismail Khalil Enhancing Neural Machine Translation with Direct Preference Optimization Using Human Feedback	Gia-Huy Vuong, Van-Loc Nguyen, Van-Son Ho, Tien-Thanh Nguyen-Dang, Ngoc-Do Tran, Van-Tu Ninh and Minh-Triet Tran Van-Tu Ninh and Minh-Triet Tran NewsInsight2.0: An Enhanced Version Integrating Large Language Model-	Duy-Nam Ly, Hoai-Nam Do, Minh-Triet Tran and Khanh-Duy Le Evaluation of AI-Based Assistant Representations on User Interaction in Virtual Explorations	Hue Nguyen, Bac Pham, Uyen Tran, Giang Nguyen and Canh V. Pham Automated generation of adaptive perturbed images based on GAN for motivated adversaries on deep learning models	
11:20	Tung Quan Duy Nguyen and Ngoc Hoang Luong A Stable Diffusion Pipeline for Diverse Procedural Painting via Text Prompts	Nguyen Huu Hoang Long, Tran Thi Cam Giang, Tran Nhu Cam Nguyen, Phan Hoang Phuoc, Dang Huu Phat and Tien-Huy Nguyen AVISearch: A Multimodal Video Event Retrieval System via Query Enhancement and Optimized Keyframes	Gia-Cat Bui-Le, Tuong-Vy Truong-Thuy, Hai-Dang Nguyen and Trung-Nghia Le DanceDuo: Bridging Human Movement and AI Choreography	Mau-Tra Nguyen, Tuan-Dat Trinh and Viet-Bang Pham PhamA Reputation Scoring Framework for Lending Protocols using the PageRank Algorithm	
11:40	Anh Nguyen, Hoang Le, Tu Hoang, Cuong Pham and Cong Tran Enhancing Image Authenticity in the Age of Generative AI: an Autoencoder-Driven Fourier Transform based Approach	Trong-Le Do, Hai-Dang Nguyen and Minh-Triet Tran Event Retrieval from Large Video Collection in Ho Chi Minh City AI Challenge 2024	Truong-Phuc Nguyen, Huu-Loi Le, Quoc-Hung Pham, Nong Quang Huy, Huy-The Vu, Xuan-Hieu Phan and Minh-Tien Nguyen ViEduQA: A New Vietnamese Dataset for Question Answer Generation in Education	Long Nguyen, Minh Tran Binh and Thu To Thi A method combining the reference information of the adaptive adjustment method and the decision maker of multi-objective evolutionary algorithms	
12:00	LUNCH				
13:30	KEYNOTE VI - CONFERENCE HALL <i>Du Tran, Google, United States</i>				
14:10	SOICT Session 14A Lifelog and Multimedia Event Retrieval	SOICT Session 14B Lifelog and Multimedia Event Retrieval	SOICT Session 14C Human Computer Interaction and Intelligent Interactive Systems	SOICT Session 14D Applied Operations Research and Optimization	POSTER EXHIBITION (Day 2)
14:10	Long Nguyen, Huy Nguyen, Bao Khuu, Huy Luu, Huy Le, Tuan Nguyen and Tho Quan RAPID: Retrieval-Augmented Parallel Inference Drafting for Text-Based Video Event Retrieval	Bao Tran Gia, Tuong Bui Cong Khanh, Tam Le Thi Thanh, Khoa Tran, Hien Ho Trong, Thuyen Tran Doan, Khiem Le, Tien Do, Duy-Dinh Le and Thanh Duc Ngo Addressing Ambiguous Queries in Video Retrieval with Advanced Temporal Search	Dinh-Thuan Duong-Le, Thien-Tuong Tran, Hoai-Nam Do, Duy-Nam Ly, Minh-Triet Tran and Khanh-Duy Le MRCClassroom: A Mixed-Reality Interface for Improving Remote Students' Presence in Hybrid Classrooms	Manh Quan Bui, Viet Hang Duong and Jia-Ching Wang Exemplar-Embed Complex Matrix Factorization with Elastic Net Penalty: An Advanced Approach for Data Representation	
14:30	Long Le Bao, Thang Nguyen Tien, Phat Nguyen Thuan, Huy Nguyen Phong, Thai Hoang Minh, Thuyen Tran Doan, Khiem Le, Tien Do, Duy-Dinh Le and Thanh Duc Ngo A Hybrid Video Retrieval System Using CLIP and BEIT-3 for Enhanced Object and Contextual Understanding	Duc-Nhuan Le, Hoang-Phuc Nguyen, Thanh-Duy Lam, Minh-Nhut Dang and Minh-Hoang Le CESE: A Clip-based Event Search Engine for AI Challenge HCMC 2024	Viet-Tham Huynh and Minh-Triet Tran VOI-VR:Voice-driven Object Interaction in Virtual Reality with Large Language Models	Thi Kim Thoa Ho, Quang Vu Bui and Marc Bui Modeling Information Diffusion in Bibliographic Networks using Pretopology	
14:50	Long Pham Hoang, Huy Tran Quang, Kha Nguyen Hieu, Phuc Nguyen Trong, Vu Do Hoang, Binh Tran Le Hai, Tri Pham Xuan, Duong Tran Ham, Tin Huynh and Kiem Hoang VizQuest: Enhanced Video Event Retrieval Using Fusion and Temporal Modeling	Minh-Quan Ho-Le, Huy-Hoang Do-Huu, Duy-Khang Ho, Nhut-Thanh Le-Hinh, Hoa-Vien Vo-Hoang, Van-Tu Ninh and Minh-Triet Tran SnapSeek: A Multimodal Video Retrieval System with Context Awareness for AI Challenge 2024	Duc-Huy Tran, Ngoc-Tri Nguyen-Dinh, Truong-Tho Le and Khanh-Duy Le Towards Enabling Tangible Interaction with Physical Objects in Virtual Reality Desktop Workplaces	Trong Hoan Dao, Tuan-Dat Trinh and Viet-Bang Pham Optimizing Credit Scoring Models for Decentralized Financial Applications	
15:10	Poster Session IV COFFEE BREAK				
15:40	SOICT Session 16A Lifelog and Multimedia Event Retrieval	SOICT Session 16B Human Computer Interaction and Intelligent Interactive Systems	SOICT Session 16C Applied Operations Research and Optimization & Human Computer Interaction and Intelligent Interactive Systems		

15:40	Minh-Quan Ho-Le, Duy-Khang Ho and Mai-Khiem Tran Media Certificate Authority: A System to Ensure Media Content Originality for Daily Lifelog Media Collection	Xuan-Tung Nguyen, The-Anh Hoang, Quynh-Nhu Pham-Vo and Nhat-Hung Dang-Hoang Exploring Prompt Injection: Methodologies and Risks with an Interactive Chatbot Demonstration	Khang Nguyen Duy, Minh Nguyen Tuan and Nam Thoai A Historical GPS Trajectory-Based Framework for Predicting Bus Travel Time		
16:00	Quan Nguyen Hung, Nhan Nguyen Viet Thien, Hoang Tran Van, An Tran Thuy, Dat Phan Thanh, Thuyen Tran Doan, Khiem Le, Tien Do, Duy-Dinh Le and Thanh Duc Ngo Unveiling Peripheral Information: A Context-Aware Video Retrieval Approach	Song Huy Nguyen and Chi Thanh Vi Meal Plan App: Personalized meal plans based on personal unique needs	Sy-Hong-Duc Nguyen, Tuan-Dat Trinh and Quoc-Viet-Quang Tran Multi-Agent Chatbot for Efficient Interaction with Blockchain APIs		POSTER EXHIBITION (Day 2)
16:20	Nhat-Sang Doan, Minh-Duc Le-Ngo, Khanh-Linh Bui-Le, Minh-Quang Tran, Duy-Ngoc Nguyen, Trong-Tai Dam Vu, Duc-Tuan Luu, Vinh-Tiep Nguyen and Minh-Triet Tran KPI: Knowledge-based Processing for Interactive Video Retrieval	Hoang-Phuc Nguyen, Quoc-Trung Nguyen and Minh-Triet Tran Mouse Paw Inflammation Evaluation with Segment Anything and Lightness Classification	Trong Tuan Do, Dinh Duy Nguyen, Xuan Hai Ho, Hoang Anh Pham and Thierry Soriano A Novel Simulation-Driven Data Enrichment Approach to Improve Machine Learning Algorithm Performance		
16:40	Hoang-Phuc Nguyen, Thuy-Nga Ho, Minh-Dai Tran-Duong, The-Luan Nguyen, Duc-Hao Truong, Quyen Nguyen Huu, Duy Phan The and Van-Hau Pham ArtemisSearch: A Multimodal Search Engine for Efficient Video Log-Life Event Retrieval Using Time-Segmented Queries and Vision Transformer-based Feature Extraction	Minh-Nhat Nguyen, Trong-Nghia Tran and Minh-Triet Tran GeoSI: An Interesting Interactive System for Retrieving and Mapping News from Multiple Online Sources	VQuang-Thang Nguyen, Gia-Phuc Song-Dong, Minh-Triet Tran and Trung-Nghia Le Budget-Aware Keyboardless Interaction		
18.30-21.15	GALA DINNER 4U RESTAURANT 2 Vo Nguyen Giap street, Son Tra, Da Nang				