

SOICT 2023 TECHNICAL PROGRAM
7, 8 December 2023
Rex hotel, Hochiminh city, Vietnam

Thursday, 7th December 2023					
08:00	REGISTRATION				
08:30	CONFERENCE OPENING Venue: Conference Hall				
08:40	KEYNOTE I - CONFERENCE HALL <i>Morten Fjeld, University of Bergen, Norway</i> Designing Mobile Interaction for Wellbeing Chair: Cathal Gurrin				
09:20	KEYNOTE II - CONFERENCE HALL <i>Hans-Jürgen Zepernick, Blekinge Institute of Technology, Sweden</i> Immersive Mobile Media: From Extended Reality to the Metaverse Chair: Ho Tu Bao				
10:00	GROUP PHOTO				
10:10	Poster Session 1: AI Foundation and Big Data (14) Chairs: Wray Buntine, Ho Tu Bao				
10:40	COFFEE BREAK				
10:40	SOICT Session 3A - Conference Hall AI Foundation and Big Data CHAIR: Chee-Kong Chui	SOICT Session 3B - Tulip Networking and Communication Technologies CHAIRS: Won Joo Hwang, Trinh Van Chien	SOICT Session 3C - Camellia Operations research for Sustainable Urban Development CHAIRS: Mourad Baiou, Nguyen Viet Hung	SOICT Session 3D - Daisy Recent Advances in Cyber Security CHAIRS: Gérard Chalhou, Tran Quang Duc	POSTER EXHIBITION (Day 1): + AI Foundation and Big Data + Lifelog Event Retrieval + Networking and Communication Technologies + Operations research for Sustainable Urban Development
10:40	Masashi Takemoto, Yasutake Masuda, Jingyong Cai and Hironori Nakajo Learning Algorithm for LesserDNN, a DNN with Quantized Weights	Ryota Koizumi, Xiaoyan Wang and Masahiro Umehira Multi-radar interference experiment and performance evaluations on algorithm-based and learning-based schemes	José Luis Figueroa González, Alain Quilliot, Hélène Toussaint and Annegret Wagler Managing a Time Expanded Networks through Project-and-Lift	Thi-Thu-Huong Le, Naufal Suryanto and Howon Kim Enhancing Intrusion Detection and Explanations for Imbalanced Vehicle CAN Network Data	
11:00	Simon Thelen, Friedrich Eder, Matthias Melzer, Danilo Weber Nunes, Michael Stadler, Christian Rechenauer, Mathias Obergrießer, Ruben Jubeň, Klaus Volbert and Jan Dünweber A Slim Digital Twin for a Smart City and Its Residents	Nam-Thang Hoang, Cong-Son Duong, Minh-Ngoc Vu, Huy-Hieu Nguyen, Xuan-Truong Tran, Van Tong and Hai Anh Tran A New Transfer Learning-Based Traffic Classification Algorithm for a Multi-Domain SDN Network	Viet Hang Duong, Bui Duc Nhan, Manh Quan Bui and Ja Ching Wang Ensemble Learning Technique with A Novelty Multi-Source Information for Stock Price Movements	Thinh Nguyen Hung, Hai Nguyen Phuc, Khoa Tran Dinh, Nhan Le Tran Thanh, Nghia To Trong, Khoa Ngo Khanh, Duy Phan The and Hau Pham Van Binary Representation Embedding and Deep Learning For Binary Code Similarity Detection in Software Security Domain	
11:20	Vikun Dong, Zhengwu Lu and Rui Zhang Locally Differentially Private and Fair Key-Value Aggregation	Ngs B.T. Nguyen, Hien Q. Ta and Khuong Ho Van Achieving Zero Secrecy Outage in Overlay Cognitive Radio Network	Chijia Liu, Alain Quilliot, Hélène Toussaint and Dominique Feillet A Filtering System for the Large-Scale Dial-A-Ride Problem With Shared Autonomous Vehicles	Duy Trung Pham, Cong Thanh Nguyen, Phi Ho Trung and Nhat Hai Nguyen Automated generation of adaptive perturbed images based on GAN for motivated adversaries on deep learning models	
11:40	Hoang Nguyen, Nam Le, Khang Tran and Ngoc Hoang Luong Simulated Annealing with Dynamic Programming-based Vertex Insertion for Efficiently Solving the Traveling Thief Problem	Gia-Vuong Nguyen, Ca Phan and Thien Huynh-The Accurate Spectrum Sensing with Improved DeepLabV3+ for 5G-LTE Signals Identification	Ngan Ha Duong and Thuy Anh Ta Joint Location and Cost Optimization with Market Expansion and Customer-centric Objective	Quang-Thai Le, Quoc-Hung Tran and Thien Huynh-The Semantic Segmentation Using 3D LIDAR Point Cloud	
12:00	LUNCH Hoa Mai restaurant, 5th floor				
13:30	KEYNOTE III - CONFERENCE HALL <i>Nabil Absi, Ecole des Mines de Saint-Etienne, France</i> Optimization for sustainable supply chains Chairs: Ide ichiro, Nguyen Hung Son				
14:10	SOICT Session 5A - Conference Hall AI Foundation and Big Data CHAIR: Nidal Kamel, Than Quang Khoat	SOICT Session 5B - Tulip Networking and Communication Technologies CHAIRS: Ho Van Khuong, Hien Ta	SOICT Session 5C - Camellia Operations research for Sustainable Urban Development CHAIRS: Jean-Philippe Gayon, Ha Minh Hoang	SOICT Session 5D - Daisy Lifelog Event Retrieval CHAIRS: Cathal Gurrin, Tran Minh Triet	POSTER EXHIBITION (Day 1): + AI Foundation and Big Data + Lifelog Event Retrieval + Networking and Communication Technologies + Operations research for Sustainable Urban Development
14:10	Loi Le Vu, Dong Nguyen Tien and Tuan Dang Minh Stratified Ranking for Dense Passage Retrieval	Minh Quang Le, Nguyen Nang Hung, Kien Nguyen, Phi Le Nguyen and Phan Thuan Do Perpetual Sensor Networks with the Minimum Number of Mobile Chargers	Aurélien Mombelli and Alain Quilliot Synchronising Lot Sizing and Job Scheduling	Trong-Le Do, Hai-Dang Nguyen, Quang-Thuc Nguyen, Tu V. Ninh, Tu-Khiem Le, Viet-Tham Huynh, Mai-Khiem Tran, Duc-Tien Dang-Nguyen, Klaus Schöffmann, Cathal Gurrin, Minh-Triet Tran Overview of News Event Retrieval in HCMC AI Challenge 2023	
14:30	Son Thai, Hop Bui, Huy Vu, Khanh Nguyen, Tin Huynh and Kiem Hoang Enhancing Face Anti-Spoofing with Swin Transformer-driven Multi-stage Pipeline	Van Khuong Ho Secure Energy Scavenging NOMA Communication with Jamming	Do Tuan Anh, Phung Bao Ha, Nguyen Thai Hai, Do Tien Trung, Ban Ha Bang and Pham Dang Hai A Monte Carlo Tree Search with Ant Colony Optimization for Inter-domain Path Computation Problem	Bao Tran Gia, Tuong Bui Cong Khanh, Khoa Tran Nhat, Kien Luo Trung, Thuyen Tran Doan, Khiem Le Tran Trong, Tien Do Van and Thanh Ngo Duc Integrating Multiple Models For Effective Video Retrieval and Multi-stage Search (Winner of Group A)	
14:50	Doan Thai Binh Phan, Phuoc Vinh Linh Le, Ngoc Hoang Luong, Tahar Kechadi and Hung Q. Ng Domain Adaptation in Nested Named Entity Recognition From Scientific Articles in Agriculture	Giang Tran Thi Cam, Duc Manh Do, Quoc Huy Do, Thi Thanh Binh Huynh and Thi Ha Ly Dinh GPU-Based Parallel Path Planning for Mobile Robot Navigation in Dynamic Environments	Nguyen Ha Huy Phuc, Anh Son Ta and Viet Hung Nguyen Improve the Quantum Approximate Optimization Algorithm with Genetic Algorithm	Huy-Giap Bui, Minh-Huy Trinh, Canh-Toan Le, Quoc-Lam Vu and Khac-Trieu Vo Zero-shot Video Retrieval using CLIP with Temporally Ordered Multi-query Scoring (Winner of Group B)	
15:10	Poster Session 2: + Lifelog Event Retrieval (11) + Networking and Communication Technologies (6) Chairs: Won Joo Hwang, Trinh Van Chien COFFEE BREAK				
15:40	SOICT Session 7A - Conference Hall AI Foundation and Big Data CHAIRS: Alain Quilliot, Luong Ngoc Hoang	SOICT Session 7B - Tulip Networking and Communication Technologies CHAIRS: Gérard Chalhou, Tran Hai Anh	SOICT Session 7C - Camellia Operations research for Sustainable Urban Development CHAIRS: Nguyen Viet Hung, Hop Nguyen	SOICT Session 7D - Daisy Lifelog Event Retrieval CHAIRS: Cathal Gurrin, Tran Minh Triet	POSTER EXHIBITION (Day 1): + AI Foundation and Big Data + Lifelog Event Retrieval + Networking and Communication Technologies + Operations research for Sustainable Urban Development
15:40	Huynh Tan and Thanh Tho Quan RoSENet: Rotary Squeeze and Excitation for Vietnamese Food Recognition	Thi Quynh Mai Banh, Trinh Van Chien, Thi Hanh Nguyen UAV Path Planning For Backscatter-and Cache-Aided Wireless Power System under Imperfect CSI	Chi Thao Nguyen, Jean-Philippe Gayon, Viet Hung Nguyen, Alain Quilliot and Anh Son Ta Pickup and Delivery Problem with Cooperative Robots	Minh-Nam Tran, Tuan-An To, Viet-Nhat Thai, Thanh-Duy Cao and Trong-Tin Nguyen AGAM: A Multimodal Human-Centric Event Retrieval System using dual image-to-text representations	
16:00	Anh Pham Duy and Huong Le Thanh A Question-Answering System for Vietnamese Public Administrative Services	Phuc Le-Thanh, Tuan Le-Anh and Quan Le-Trung Research and Development of a Smart Solution for Runtime Web Application Self-Protection	Tuong Do and Ngoc Hoang Luong Bias-free Trading Algorithms with Momentum Scores for the Vietnamese Stock Market	Gia Huy Vuong, Van-Son Ho, Tien-Thanh Nguyen-Dang, Xuan-Dang Thai, Van-Tu Ninh, Minh-Khoi Pham, Tu-Khiem Le, Graham Healy and Minh-Triet Tran NewsInsight: A Comprehensive Video Event Retrieval System with Spatial Insights and Query Assistance	
16:20	Huu-Tuong Ho, Minh-Tien Pham, Quang-Duong Tran Tran, Quang-Huy Pham and Thi-Thu-Hong Phan Evaluating Audio Feature Extraction Methods for Identifying Bee Queen Presence	Tung Pham Huu, Hung Tran, Duc-Tan Tran, Viet-Hung Dang, Van Nhan Vo and Viet Nguyen Dinh Security and Reliability Performance Analysis of Cognitive NOMA Network Under Outage Constraint of Multiple Primary Users	Bui Quoc Trung, Bui Thi-Mai-Anh, Nguyen Viet Chinh, Pham Quang Dung and Nguyen Manh Cuong Metaheuristic for a soft-rectangle packing problem with guillotine constraints	Sieu Tran, Duc Minh Nguyen, Triet Huynh Minh Nguyen, Danh Phuc Ngo, Thu Minh Nguyen, Hao Anh Vo, Khiem Le, Tien Do and Thanh Duc Ngo Diverse Search Methods and Multi-Modal Fusion for High-Performance Video Retrieval	
16:40	Thanh-Truong Pham and Tuan-Dat Trinh Scoring model for NFT evaluation		Vu Huynh, The Viet Le and Ngoc Hoang Luong Self-Adaptive Ant System with Hierarchical Clustering for the Thief Orienteering Problem	Mai-Khiem Tran and Minh-Triet Tran Anomaly Event Retrieval System from TV News and Surveillance Cameras	
Friday, 8th December 2023					
08:00	REGISTRATION				
08:30	KEYNOTE IV - CAMELLIA <i>Ravishankar K. Iyer, University of Illinois at Urbana-Champaign, United States</i> Achieving Cloud Resiliency with Expert-Augmented AI Chair: Wray Buntine				
09:10	KEYNOTE V - CAMELLIA <i>Shengdong Zhao, National University of Singapore, Singapore</i> Heads-Up Computing: Towards The Next Generation Interactive Computing Interaction Chair: Nguyen Hung Son				
09:50	Poster Session 3: + Multimedia Processing (10) + Artificial Intelligence and Data Science for Smart Health and Medicine (6) Chairs: Nidal Kamel, Pham Huy Hieu, Nguyen Phi Le COFFEE BREAK				

10:20	SOICT Session 10A - Camellia AI Foundation and Big Data CHAIR: Bay Vo	SOICT Session 10B - Tulip Artificial Intelligence and Data Science for Smart Health and Medicine CHAIR: Nidal Kamel, Pham Huy Hieu	SOICT Session 10C - Executive Lounge Multimedia Processing CHAIR: Ide Ichiro, Thuy Nguyen	POSTER EXHIBITION (Day 2): + Multimedia Processing + Software Engineering + Artificial Intelligence and Data Science for Smart Health and Medicine + Human Computer Interaction and Intelligent Interactive Systems + Recent Advances in Cyber Security
10:20	Tan Nghia Duong, Thi Thu Trang Pham, Truong Giang Do, Thi Kim Phuong Dinh and Manh Hoang Tran A Generalized Autorec Framework Applying Content-based Information for Resolving Data Sparsity Problem	Chin-Boon Chng, Wenjun Lin, Yaxin Hu, Yan Hu, Jiang Liu and Chee-Kong Chui Automatic Surgical Step Recognition Using Video and Kinematic Data for Intelligent Operating Room	Kien Dzung, Oanh Nguyen and Sang Dinh Viet NCLDA: Multi-level Contrastive Learning for Domain Adaptive Semantic Segmentation	
10:40	Lam Tran, Viet Nguyen, Phi Nguyen and Khoat Than Sharpness and Gradient Aware Minimization for Memory-based Continual Learning	Xuan Cuong Do, Hoang Dang Nguyen, Nhat Hai Nguyen, Thanh Hung Nguyen, Hieu Pham and Phi Le Nguyen A Novel Approach for Extracting Key Information from Vietnamese Prescription Images	Lam Mai-Thanh, Khoi Tran-Minh and Thien Huynh-The PointGANet: A Lightweight 3D Point Cloud Learning Architecture for Semantic Segmentation	
11:00	Quoc-Khanh Mai, Thanh-Dat Nguyen, Minh Hoang Pham and Thai Son Tran Tensor Analysis Of Convolutional Neural Network For Reducing Network Parameters	Dai-Nghia Nguyen, Lan-Anh Le-Pham, Hai-Dang Nguyen and Minh-Triet Tran Combining Deep Learning And Medical Knowledge to Detect Cardiomegaly and Pleural Effusion in Chest X-rays Diagnosis	Anis Fradi, Chafik Samir and José Braga A Shrinkage Method for Learning, Registering and Clustering Shapes of Curves	
11:20	Nguyen Van Doan, Trong Duc Nguyen, Dat Nguyen Tran, Cam-Van Thi Nguyen, Dang Hai Kieu and Duc-Trong Le GAT-FP: Addressing Imperfect Multimodal Learning using Graph Attention Networks and Feature Propagation	Minh-Quan Ho-Le, Hoang-Hung Vo-Trung and Phuc-Tan Nguyen Multiclass Skin Disease Classification within Dermoscopic Images Using Deep Neural Networks	Nhu-Thanh Nguyen, Khoa Phan Thi-Kim, Duc-Vu Nguyen and Ngan Nguyen Luu-Thuy Abusive Span Detection for Vietnamese Narrative Texts	
11:40	Ngoc Quoc Tran, Minh Hoang Pham and Thai Son Tran High Dimensional Data Classification Approach with Deep Learning and Tucker Decomposition	Trong-Hieu Nguyen-Mau, Trong-Vu Hoang, Hai-Dang Nguyen and Hung Tran TransNet: Merging Convolution with Transformer to Enhance Polyp Segmentation	Duc Nguyen Quang, Luong Tran Khanh, Duc Le Hong, Hoan Nguyen Huy, Phuc Trinh Anh and Sang Dinh Viet Improving Single Positive Multi-label Classification via Knowledge-based Label-weighted Large Loss Rejection	
12:00	LUNCH Hoa Mai restaurant, 5th floor			
13:30	KEYNOTE VI - CAMELLIA <i>Tzung-Pei Hong, National University of Kaohsiung</i> Some Interesting Issues in Data Mining <i>Chair: Nguyen Hung Son</i>			
14:10	SOICT Session 12A - Camellia Software Engineering, Human Computer Interaction & Intelligent Systems CHAIRS: Morten Fjeld, Khanh-Duy Le	SOICT Session 12B - Tulip Artificial Intelligence and Data Science for Smart Health and Medicine CHAIR: Nidal Kamel, Nguyen Phi Le	SOICT Session 12C - Executive Lounge Multimedia Processing CHAIR: Markus Westner, Thanh Duc Ngo	POSTER EXHIBITION (Day 2): + Multimedia Processing + Software Engineering + Artificial Intelligence and Data Science for Smart Health and Medicine + Human Computer Interaction and Intelligent Interactive Systems + Recent Advances in Cyber Security
14:10	Viet-Tham Huynh, Tam V. Nguyen and Minh-Triet Tran Sketch2Reality: Immersive 3D Indoor Scene Synthesis via Sketches	Minh-Van Nguyen, Duy-Thinh Nguyen, Quoc-Huy Trinh and Bac Le ALGNet: Attention Light Graph Memory Network for Medical Recommendation System	Hung Vu Quoc, Thao Tran Le Phuong, Minh Trinh Xuan and Sang Dinh Viet LSegDiff: A Latent Diffusion Model for Medical Image Segmentation	
14:30	Yihong Han, Nagisa Asahori, Yoko Nishihara and Junjie Shan A Helpful Reviews Composition Assistance System for Online Shopping Users	Bao Anh Trinh, Thi Thuy An Trinh, Ly Vu, Hang Dao and Thuy Nguyen Improving Loss Function for a Deep Neural Network for Lesion Segmentation	Chau Nguyen Minh, Toan Nguyen Ngoc, Tuyen Le Dinh, Sang Dinh Viet, Pooi-Mun Wong, Chin-Boon Chng and Chee-Kong Chui Boosting Facial Landmark Detection via Self-supervised and Semi-supervised Learning	
14:50	Nhat Truong Pham, Le Thi Phan, Duc Ngoc Minh Dang and Balachandran Manavalan SEK-Fuse: An Emotion Recognition Application Utilizing Multi-Modal, Multi-Lingual, and Multi-Feature Fusion	Huu-Hung Nguyen, Cong-Tai Nguyen and Minh-Triet Tran Volumetric CT Segmentation with Mask Propagation Using Segment Anything	Thuc Nguyen-Quang and Minh-Triet Tran Few-shot Object Counting with Low-cost Counting Phase	
15:10	Poster Session 4: + Software Engineering (2) + Recent Advances in Cyber Security (6) + Human Computer Interaction and Intelligent Interactive Systems (6) Chairs: Gérard Chalhouh, Tran Quang Duc, Vu Nguyen, Quan Thanh Tho COFFEE BREAK			
15:40	SOICT Session 14A - Camellia Software Engineering, Human Computer Interaction & Intelligent Systems CHAIR: Vu Nguyen, Quan Thanh Tho	SOICT Session 14B - Tulip Recent Advances in Cyber Security CHAIRS: Rui Zheng, Tran Quang Duc	SOICT Session 14C - Executive Lounge Multimedia Processing CHAIR: Chee-Kong Chui, Dinh Viet Sang	POSTER EXHIBITION (Day 2): + Multimedia Processing + Software Engineering + Artificial Intelligence and Data Science for Smart Health and Medicine + Human Computer Interaction and Intelligent Interactive Systems + Recent Advances in Cyber Security
15:40	Ninh Quoc-Bao, Nguyen Hai-Chan, Triet Huynh and Trung-Nghia Le Multi-Branch Network for Imagery Emotion Prediction	Huyen Ha, Duc Chan, Dukyun Kim Black-Box Adversarial Attacks Against Language Model Detector	Hoang-Chau Luong and Minh-Triet Tran Applying Adaptive Sharpness-Aware Minimization to Improve Out-of-distribution Generalization	
16:00	Ngoc Phuong Bui, Minh-Tri Hoang, Thang Nguyen, Huu-Hai-Quan Dinh and Binh Minh Nguyen An Enhanced Tendemint Consensus Protocol Powered by Elliptic Curve VRF for Beacon Chain Mode	Hien Do Hoang, Ha Nguyen Thi Hai, Hien Do Thi Thu, The Duy Phan and Van-Hau Pham WebGuardRL: An Innovative Reinforcement Learning-based Approach for Advanced Web Attack Detection	Tuong-Nghiem Diep, Thien-Phuc Tran, Vinh-Phat Ho-Ngoc, Tuan-Anh Yang and Trong-Le Do Deep Learning Hierarchical Methods for Insect Pest Recognition on Plants	
16:20	Cuong Nguyen, Huy Bui, Vu Nguyen and Tien Nguyen An Approach to Generating API Test Scripts Using GPT	Tung Bui, Tran Duc, Nguyen Linh Giang, Nguyen Hien, Nguyen Thanh and Nguyen Khanh A Machine Learning-Based Framework for Detecting Malicious HTTPS Traffic	Duy-Khang Ho, Huy-Hoang Do-Huu, Minh-Phuong Le-Thi and Xuan-Nam Cao Improving Bird Sounds Classification with Additional Fine-tuning on Augmented Data	
18:30-21:15	GALA DINER 18.30, Indochina Queen boat, 3rd floor No. 5 Nguyen Tat Thanh, District 4 Departs at 18.30, arrives at 21.15			