

SOICT 2023 TECHNICAL PROGRAM

Thursday, 7th December 2023

08:00	REGISTRATION				
08:30	CONFERENCE OPENING Venue: Conference Hall				
09:00	KEYNOTE I - CONFERENCE HALL <i>Ravishankar K. Iyer, University of Illinois at Urbana-Champaign, United States</i> Achieving Cloud Resiliency with Expert-Augmented AI				
09:40	KEYNOTE II - CONFERENCE HALL <i>Morten Fjeld, University of Bergen, Norway & Chalmers University of Technology, Sweden</i> Designing Mobile Interaction for Wellbeing				
10:20	GROUP PHOTO				
10:30	Poster Session 1: AI Foundation and Big Data (13) COFFEE BREAK				
11:10	SOICT Session 1A - Conference Hall AI Foundation and Big Data CHAIR: Masashi Takemoto, Yasutake Masuda, Jingyong Cai and Hironori Nakajo Learning Algorithm for LesserDNN, a DNN with Quantized Weights	SOICT Session 2A - Tulip Networking and Communication Technologies CHAIR: Gia-Vuong Nguyen, Ca Phan and Thien Huynh-The Accurate Spectrum Sensing with Improved DeepLabV3+ for 5G-LTE Signals Identification	SOICT Session 5A - Camellia Operations research for Sustainable Urban Development CHAIR: Aurélien Mombelli and Alain Quilliot Synchronising Lot Sizing and Job Scheduling	SOICT Session 7A - Daisy Recent Advances in Cyber Security CHAIR: Duy Trung Pham, Cong Thanh Nguyen, Phi Ho Truong and Nhat Hai Nguyen Automated generation of adaptive perturbed images based on GAN for motivated adversaries on deep learning models	POSTER EXHIBITION (Day 1): + AI Foundation and Big Data + Lifelog Event Retrieval + Networking and Communication Technologies + Operations research for Sustainable Urban Development
11:30	Simon Thelen, Friedrich Eder, Matthias Melzer, Danilo Weber Nunes, Michael Stadler, Christian Rechenauer, Mathias Oberberger, Ruben Jubeň, Klaus Volbert and Jan Dörnweber A Slim Digital Twin for a Smart City and Its Residents	Nam-Thang Hoang, Cong-Son Duong, Minh-Ngoc Vu, Hoy-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	Nguyen Ha Huy Phuc, Anh Son Ta and Viet Hung Nguyen Improve the Quantum Approximate Optimization Algorithm with Genetic Algorithm	Thinh Nguyen Hang, 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	
11:50	Yukun Dong, Zhengwu Lu and Rui Zhang Locally Differentially Private and Fair Key-Value Aggregation	Van Khuong Ho Secure Energy Scavenging NOMA Communication with Jamming	Ngan Ha Duong and Thuy Anh Ta Joint Location and Cost Optimization with Market Expansion and Customer-centric Objective	Cheng Xu and M-Tahar Kechadi Fuzzy Deep Hybrid Network for Fake News Detection	
12:10	LUNCH Hoa Mai restaurant, 5th floor				
13:30	KEYNOTE III - CONFERENCE HALL <i>Nobil Absi, Ecole des Mines de Saint-Etienne, France</i> Optimization for sustainable supply chains				
14:10	KEYNOTE IV - CONFERENCE HALL <i>Yew Soon Ong, Nanyang Technological University, Singapore</i>				
14:50	SOICT Session 1B - Conference Hall AI Foundation and Big Data CHAIR: Loi Le Vu, Dong Nguyen Tien and Tuan Dang Minh Stratified Ranking for Dense Passage Retrieval	SOICT Session 2B - Tulip Networking and Communication Technologies CHAIR: Ryoto Koizumi, Xiaoyan Wang and Masahiro Umehira Multi-radar interference experiment and performance evaluations on algorithm-based and learning-based schemes	SOICT Session 5B - Camellia Operations research for Sustainable Urban Development CHAIR: Do Tuan Anh, Phung Bao Ha, Nguyen Thai Ha, 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	SOICT Session 8A - Daisy Lifelog Event Retrieval CHAIR: Minh-Triet Tran Overview of News Event Retrieval in HCMC AI Challenge 2023	POSTER EXHIBITION (Day 1): + AI Foundation and Big Data + Lifelog Event Retrieval + Networking and Communication Technologies + Operations research for Sustainable Urban Development
15:10	Son Thai, Hop Bui, Huy Vu, Khanh Nguyen, Tin Huynh and Kiem Hoang Enhancing Face Anti-Spoofing with Swin Transformer-driven Multi-stage Pipeline	Nga B.T. Nguyen, Hien Q. Ta and Khuong Ho Van Achieving Zero Secrecy Outage in Overlay Cognitive Radio Network	Chiya Liu, Alain Quilliot, Hélène Toussaint and Dominique Feillet A Filtering System for the Large-Scale Dial-A-Ride Problem With Shared Autonomous Vehicles	Bao Tran Gia, Tuong Bui Cong Khanh, Khoa Tran Nhat, Kien Luu Trung, Thuyen Tran Doan, Kiem Le Tran Trong, Tien Do Van and Thinh Ngo Duc Integrating Multiple Models For Efficient Video Retrieval and Multi-stage Search (Winner of Group A)	
15:30	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	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	José Luis Figueroa González, Alain Quilliot, Hélène Toussaint and Annegrat Wagler Managing a Time Expanded Networks through Project-and-Lift	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)	
15:50	Poster Session 2: + Lifelog Event Retrieval (11) + Networking and Communication Technologies (6) COFFEE BREAK				
16:20	SOICT Session 1C - Conference Hall AI Foundation and Big Data CHAIR: Huyh Tan and Thanh Tho Quan RoSENet: Rotary Squeeze and Excitation for Vietnamese Food Recognition	SOICT Session 2C - Tulip Networking and Communication Technologies CHAIR: Thi Quynh Mai Binh, Trinh Van Chien, Thi Hanh Nguyen and Thi Thanh Binh Huynh UAV Path Planning For Backscatter-and Cache-Aided Wireless Power System under Imperfect CSI	SOICT Session 5C - Camellia Operations research for Sustainable Urban Development CHAIR: Chi Thao Nguyen, Jean-Philippe Gayon, Viet Hung Nguyen, Alain Quilliot and Anh Son Ta Pickup and Delivery Problem with Cooperative Robots	SOICT Session 8B - Daisy Lifelog Event Retrieval CHAIR: Minh-Triet Tran AGAIN: A Multimodal Human-Centric Event Retrieval System using dual image-to-text representations	POSTER EXHIBITION (Day 1): + AI Foundation and Big Data + Lifelog Event Retrieval + Networking and Communication Technologies + Operations research for Sustainable Urban Development
17:00	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	Truong 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	
17:20	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	Viet Hang Duong, Bui Duc Nhan, Manh Quan Bui and Jia Ching Wang Ensemble Learning Technique with A Novelty Multi-Source Information for Stock Price Movements	Sieu Tran, Duc Minh Nguyen, Triet Huynh Minh Nguyen, Danh Phuc Ngo, Thu Minh Nguyen, Hao Anh Vo, Kiem Le, Tien Do and Thanh Duc Ngo Diverse Search Methods and Multi-Modal Fusion for High-Performance Video Retrieval	
17:40	Thanh-Truong Pham and Tuan-Dat Trinh Scoring model for NFT evaluation		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	Mai-Khiem Tran and Minh-Triet Tran Anomaly Event Retrieval System from TV News and Surveillance Cameras	
18:00	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		Vu Huynh, The Viet Le and Ngoc Hoang Luong Self-Adaptive Ant System with Hierarchical Clustering for the Thief Orienteering Problem		
18:20	Poster Session 3: + Multimedia Processing (10) + Artificial Intelligence and Data Science for Smart Health and Medicine (6) COFFEE BREAK				

Friday, 8th December 2023

08:00	REGISTRATION				
08:30	KEYNOTE V - CONFERENCE HALL <i>Hans-Jürgen Zepernick, Blekinge Institute of Technology, Sweden</i> Immersive Mobile Media: From Extended Reality to the Metaverse				
09:10	KEYNOTE VI - CONFERENCE HALL <i>Shengdong Zhao, National University of Singapore, Singapore</i> Heads-Up Computing: Towards The Next Generation Interactive Computing Interaction				
09:50	Poster Session 3: + Multimedia Processing (10) + Artificial Intelligence and Data Science for Smart Health and Medicine (6) COFFEE BREAK				

10:30	SOICT Session 1D - Conference Hall AI Foundation and Big Data CHAIR:	SOICT Session 6A - Tulip Artificial Intelligence and Data Science for Smart Health and Medicine CHAIR:	SOICT Session 3A - Executive Lounge Multimedia Processing CHAIR:	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
10:30	Tan Nghia Duong, Thi Thu Trang Pham, Trung Giang Do, Thi Kim Phuong Dinh and Manh Hoang Tran A Generalized Autorec Framework Applying Content-based Information for Resolving Data Sparsity Problem	Huu-Hung Nguyen, Cong-Tai Nguyen and Minh-Triet Tran Volumetric CT Segmentation with Mask Propagation Using Segment Anything	Kien Dzung, Oanh Nguyen and Sang Dinh Viet NCLDA: Multi-level Contrastive Learning for Domain Adaptive Semantic Segmentation	
10:50	Lam Tran, Viet Nguyen, Phi Nguyen and Khoat Than Sharpness and Gradient Aware Minimization for Memory-based Continual Learning	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	Lam Mai-Thanh, Khai Tran-Minh and Thien Huynh-The PointGANet: A Lightweight 3D Point Cloud Learning Architecture for Semantic Segmentation	
11:10	Quoc-Khanh Mai, Thanh-Dat Nguyen, Minh Hoang Pham and Thai Son Tran Tensor Analysis Of Convolutional Neural Network For Reducing Network Parameters	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	Anis Fradi, Chafik Samir and José Braga A Shrinkage Method for Learning, Registering and Clustering Shapes of Curves	
11:30	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	Trong-Hieu Nguyen-Mau, Trong-Vu Hoang, Hai-Dang Nguyen and Minh-Triet Tran ConvTransNet: Merging Convolution with Transformer to Enhance Polyp Segmentation	Nhu-Thanh Nguyen, Khoa Phan Thi-Kim, Duc-Vu Nguyen and Ngan Nguyen Luu-Thuy Abusive Span Detection for Vietnamese Narrative Texts	
11:50	Ngoc Quoc Tran, Minh Hoang Pham and Thai Son Tran High Dimensional Data Classification Approach with Deep Learning and Tucker Decomposition	Minh-Quan Ho-Le, Hoang-Hung Vo-Trung and Phuc-Tan Nguyen Multiclass Skin Disease Classification within Dermoscopic Images Using Deep Neural Networks	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	
12:10	LUNCH Hoa Mai restaurant, 5th floor			
13:30	KEYNOTE VII - Conference Hall <i>Tzung-Pei Hong, National University of Kaohsiung, Taiwan</i> Some Interesting Issues in Data Mining			
14:10	SOICT Session 4A - Conference Hall Software Engineering, Human Computer Interaction & Intelligent Systems CHAIR:	SOICT Session 6B - Tulip Artificial Intelligence and Data Science for Smart Health and Medicine CHAIR:	SOICT Session 3B - Executive Lounge Multimedia Processing CHAIR:	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 SEN-Fuse: An Emotion Recognition Application Utilizing Multi-Modal, Multi-Lingual, and Multi-Feature Fusion	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	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)			
COFFEE BREAK				
15:50	SOICT Session 4B - Conference Hall Software Engineering, Human Computer Interaction & Intelligent Systems CHAIR:	SOICT Session 7B - Tulip Recent Advances in Cyber Security CHAIR:	SOICT Session 3C - Executive Lounge Multimedia Processing CHAIR:	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
15:50	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	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	
16:10	Ngoc Phuong Bui, Minh-Tri Hoang, Thang Nguyen, Huu-Hai-Quan Dinh and Binh Minh Nguyen An Enhanced Tendermint 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	
16:30	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	Quang-Thai Le, Quoc-Hung Tran and Thien Huynh-The Strategic Improvements of SqueezeSegV2 for Road-Scene Semantic Segmentation Using 3D LIDAR Point Cloud	
16:50	Ninh Quoc-Bao, Nguyen Hai-Chan, Triet Huynh and Trung-Nghia Le Multi-Branch Network for Imagery Emotion Prediction	Thi-Thu-Huong Le, Naufal Suryanto and Howon Kim Enhancing Intrusion Detection and Explanations for Imbalanced Vehicle CAN Network Data	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	GALA DINER			