

The 11th International Symposium on Information and Communication Technology Program

1 December 2022 Hanoi University of Science and Technology, Hanoi, Vietnam			
8:30	Registration Lecture Hall, 3 rd floor, B1 Building, Hanoi University of Science and Technology		
9:00-9:15	Opening Lecture Hall, 3 rd floor, B1 Building, Hanoi University of Science and Technology		
9:15-9:45	Keynote Data to Knowledge to Automation: How Can AI Boost Software Quality? <i>David Lo, Singapore Management University, Singapore</i> Chair: Ho Tu Bao		
9:45-10:15	Keynote Implicitly-defined prediction rules in deep learning <i>Laurent El Ghaoui, VIN University, Vietnam; UC Berkeley, United States</i> Chair: Jeff Edmons		
10:15-10:30	Photo session		
10:30-10:45	Coffee Break		
	Lecture Hall, 3rd floor, B1 Building AI Foundation and Big Data Chair: Kyungbaek Kim, Than Quang Khoat	Room 404, 4th floor, B1 Building Image and Natural Language Processing Chair: Akiyo Nadamoto, Le Thi Lan	Room 403, 4th floor, B1 Building Blockchain Chair: David Tran, Nguyen Binh Minh
10:45-11:05	<i>An Vo, Tan Ngoc Pham, Van Bich Nguyen and Ngoc Hoang Luong</i> Training-Free Multi-Objective and Many-Objective Evolutionary Neural Architecture Search with Synaptic Flow	<i>Minh-Hieu Huynh, Bao Bai-Xuan and Minh-Triet Tran</i> Sports Visual Data Analysis with Deep Vision	<i>Ta Minh Thanh</i> Blockmarking: Hybrid Model of Blockchain and Watermarking Technique for Copyright Protection
11:05-11:25	<i>Luat Le Ba, Bach Do Viet, Hoang Ha Minh and Giang Pham Hoang</i> Optimizing energy generation in short-term hydro unit commitment using efficiency points	<i>Quang-Tien Pham, Duc-Anh Nguyen, Tien-Thanh Nguyen, Thanh Nam Nguyen, Duy-Tung Nguyen, Dinh-Tan Pham, Thanh Hai Tran, Thi-Lan Le and Hai Vu</i> A study on skeleton-based action recognition and its application to physical exercise recognition	<i>Ba-Lam Do, Hoang-Nam Dinh, Van-Thanh Nguyen, Manh-Hung Tran, Thanh-Long Le and Viet-Thang Nghiem</i> B4E: A System for Creating and Validating Digital Credentials using Remote Signing and Blockchain
11:25-11:45	<i>Yusuke Kimura, Takahiro Komamizu and Kenji Hatano</i> Multi-task Learning-based Text Classification with Subword-Phrase Extraction	<i>Hai Vu, Cong Nguyen Xuan, Minh Nghia Le, Duc Anh Nguyen and Viet Hang Dao</i> A robust and high-performance neural network for classifying anatomical landmarks from Upper GastroIntestinal Endoscopy Images	<i>Thanh-Chung Dao, Le-Duc Pham, Tien-Thao Nguyen, Ba-Lam Do and Binh Minh Nguyen</i> V-Endpoint: Decentralized Endpoint for Blockchain Applications Based on Spark and Byzantine Consensus
11:45-12:05	<i>The Duy Phan, Tran Duc Luong, Nguyen Hoang Quoc An, Quyen Nguyen Huu, Hoang Khoa Nghi and Van-Hau Pham</i> Leveraging Reinforcement Learning and Generative Adversarial Networks to Craft Mutants of Windows Malware against Black-box Malware Detectors	<i>Anh Le, Quang Uy Nguyen, Ngoc Tran Nguyen, Hai-Hong Phan and Thi Huong Chau</i> An integration of Pseudo Anomalies and Memory Augmented Autoencoder for Video Anomaly Detection	<i>Phuong N. H. Pham, Quy T. N. Co, Anh N. Su, Phuong T. Pham, Canh V. Pham and Vaclav Snasel</i> k-Submodular Cover Problem: Application and Algorithms
12:05-13:00	Lunch - 10th floor, BKAI, B1 Building, Hanoi University of Science and Technology		
	Lecture Hall, 3rd floor, B1 Building AI Foundation and Big Data Chair: Tadahiko Kumamoto, Dang Tuan Linh	Room 404, 4th floor, B1 Building Image and Natural Language Processing Chair: Ngo Thanh Trung, Vu Hai	Techshow B1 Building
13:00-13:20	<i>Thai Bao Tran and Ngoc Hoang Luong</i> Benchmarking Gradient Estimation Mechanisms in Evolution Strategies for Solving Black-Box Optimization Functions and Reinforcement Learning Problems	<i>Quang Tien Duong, Duc Huy Nguyen, Bao Thang Ta, Nhat Minh Le and Van Hai Do</i> Improving Self-supervised Audio Representation based on Contrastive Learning with Conformer Encoder	
13:20-13:40	<i>Anh Son Tu and Ngoc Bach Pham</i> Solving resource forecasting in WiFi Network by NeuralProphet	<i>Hanh Pham Van and Huong Le Thanh</i> Improving Khmer-Vietnamese Machine Translation with Data Augmentation methods	
13:40-14:00	<i>Asad Khattak and Adil Khan</i> Cross-Location Activity Recognition using Adversarial Learning	<i>Namal Rathnayake, Tuan Linh Dang and Yukinobu Hoshino</i> Designing and Implementation of Novel Ensemble model based on ANFIS and Gradient Boosting methods for Hand Gestures Classification	
14:00-14:20	<i>Khoa Nguyen, Nghia Vu, Dung Nguyen and Khoat Than</i> Random Generative Adversarial Networks	<i>Huu Hiep Nguyen, Ngoc Dung Nguyen and Khac-Hoai Nam Bui</i> Intent Detection and Slot Filling with Low Resource and Domain Similarity	
14:30-15:00	Tutorial 1: Building Better Models Faster: A Charming Tool for Versioning Data and Experiments <i>Tung Dao, Shopee, Singapore</i> Lecture Hall, 3rd floor, B1 Building, Hanoi University of Science and Technology	Tutorial 2: High Quality Paper Writing – persuasive writing with evidence <i>Shui Yu, University of Technology Sydney, Australia</i> Room 404, 4th floor, B1 Building, Hanoi University of Science and Technology	
15:30	Transfer to Ha Long Bay		
2 December 2022 Wyndham Legend Halong, Ha Long Bay			
8:30	Registration 2 nd floor, Wyndham Legend Halong		
8:30-9:00	Keynote Combating Deepfakes. Recent Approaches and Challenges <i>Nasir Memon, New York University, United States</i> Chair: David Tran Diamond Ballroom 1		
9:00-9:30	Keynote Boosting Image Retrieval by Diffusion <i>Shin'ichi Satoh, National Institute of Informatics, Japan</i> Chair: Nguyen Hung Son Diamond Ballroom 1		

9:30-9:45	Coffee Break		
	Diamond Ballroom 1 AI Foundation and Big Data Chair: Akiyo Nadamoto, Nguyen Phi Le	Diamond 2 Image and Natural Language Processing Chair: Takahiro Komamizu	POSTER SHOW
9:45-10:05	<i>Thu Hang Phung, Duc Long Nguyen, Viet Hung Vu, Thanh Trung Huynh, Thanh Hung Nguyen and Phi Le Nguyen</i> Unsupervised Air Quality Interpolation with Attentive Graph Neural Network	<i>Tri Le, Nham Huynh-Duc, Chung Thai Nguyen and Minh-Triet Tran</i> Motion Embedded Image: A combination of spatial and temporal features for Action Recognition	
10:05-10:25	<i>Kazuhiro Ito, Taichi Murayama, Shuntaro Yada, Shoko Wakamiya and Eiji Aramaki</i> Identifying A Target Scope of Complaints on Social Media	<i>Tuan Linh Dang, Sy Dat Tran, Thuy Ha Hoang, Trong Nghia Nguyen and Tuan Minh Vu</i> Prototype of a parking system with path recommendation	
10:25-10:45	<i>Dao Hoang Long, Nguyen Hong Ngoc, Nguyen Thi My Binh, Huynh Thi Thanh Binh and Nguyen Khanh Phuong</i> Investigate Evolutionary Strategies for Black-box Attacks to Deepfake Forensic Systems	<i>Sang Dinh Viet and Quang Nguyen Duy</i> Incremental Boundary Refinement using Self Axial Reverse Attention and Uncertainty-aware Gate for Colon Polyp Segmentation	
10:45-11:05	<i>Bui Thi-Mai-Anh, Anh Ho and Nguyen Nhat Hai</i> Combining Deep Learning and Kernel PCA for Software Defect Prediction	<i>Cong Tran, Khanh Nguyen-Trong, Cuong Pham, Dat Tran and Tien Nguyen-Thi-Tan</i> Improving text recognition by combining visual and linguistic features of text	
11:05-11:20	<i>Binh Nguyen Thanh, Minh Nguyen N. H., Hanh Le Thi My and Binh Nguyen Thanh</i> ml-Codesmell: A code smell prediction dataset for machine learning approaches	<i>Duc Minh Le, Linh Quang Tran, Hong Thi Le, Hai Van-Anh Tong and Anh Phuong Nguyen</i> Generating Multi-platform Single Page Applications: A Hierarchical Domain-Driven Design Approach	
11:20-11:40	<i>Van-Quyét Nguyen, Van-Hau Nguyen, Minh-Quy Nguyen, Quyét-Thang Huynh and Kyungbaek Kim</i> Big Data Knowledge Acquisition Platform for Smart Farming	<i>Thi Huong Giang Vu and Thi Hong Anh Nguyen</i> An improved NSGA-II based-on project scheduling principles for workforce scheduling optimization in warehouse	
11:40-12:00	<i>Linh Trinh and Bach Ha</i> An incorporation of deep temporal convolutional networks with hidden markov models post-processing for sensor-based human activity recognition	<i>Anna Scius-Bertrand, Andreas Fischer and Marc Bui</i> Retrieving Keywords in Historical Vietnamese Stele Images Without Human Annotations	
12:00-13:30	Lunch - Blue Bay Restaurant, 1st floor		
13:30-14:00	Keynote Path disruption games in networks <i>Mourad Baiou, LIMOS lab, FRANCE</i> Chair: Nguyen Viet Hung Diamond Ballroom 1		
14:00-14:30	Keynote Metaverse: Towards the next-generation immersive internet <i>Long Bao Le, University of Quebec, Canada</i> Chair: Abdelhamid Mellouk Diamond Ballroom 1		
14:30-14:45	Coffee Break		
	Diamond Ballroom 1 Poster Session 10 mins oral presentation + poster presentation Chair: Tran Hai Anh, Hironori Nakajo	Diamond 2 Network Communication and Security Chair: Sami Souhi, Trinh Van Chien	POSTER SHOW
14:45-15:05	<i>- Nguyen Tu, Do Tri, Le Khanh, Go Seungkyu, Na Sunghyun, Kim Dukyun and Tran Duc</i> A LSTM-based approach for Predicting Resource Utilization in Cloud Computing	<i>Hien Do Thi Thu, The Duy Phan, Hao Le Anh, Lan Nguyen Duy, Khoa Nghi Hoang and Van-Hau Pham</i> A Method of Mutating Windows Malwares using Reinforcement Learning with Functionality Preservation	
15:05-15:25	<i>- Thanh Nguyen Tien and Khanh-Van Nguyen</i> Decision graph for timely delivery of multi-AGVs in healthcare environment	<i>Nam-Thang Hoang, Cong-Son Duong, Tran-Le-Tuan Nguyen, Van Tong and Hai Anh Tran</i> Knowledge-defined Heterogeneous Network: Use-case of QoS-based Server and Route Selection in Large-scale Network	
15:25-15:45	<i>- Luyen Ngan Van, Anh Hoang Tuan, Duy Phan The, Tan-Khoa Vo and Van-Hau Pham</i> A Privacy-Preserving Approach For Building Learning Models in Smart Healthcare using Blockchain and Federated Learning	<i>- Viet-Bang Pham and Tuan-Dat Trinh</i> Analysis Model for Decentralized Lending Protocols	
15:45-16:05	<i>- Nguyen Bac Trinh, The Duy Phan and Van-Hau Pham</i> Leveraging Deep Learning Image Classifiers for Visual Similarity-based Phishing Website Detection	<i>- Bui Quoc Trung, Bui Thi-Mai-Anh and Tran Van Tri</i> Empirical Analysis of Filter Feature Selection Criteria on Financial Datasets	
16:05-16:25	<i>- Thi-Thu-Trang Do, Thai-Bao Mai-Hoang, Van-Quyét Nguyen and Quyét-Thang Huynh</i> Query-based Performance Comparison of Graph Database and Relational Database	<i>Khanh Nguyen Quoc, Tung Bui, Dong Le, Duc Tran, Toan Nguyen and Huu Trung Nguyen Nguyen</i> Detecting DGA Botnet based on Malware Behavior Analysis	
16:05-16:25	<i>- Nhat-Hoa Tran</i> Model Checking Techniques Enable Schedulability Analysis of Real-Time Systems	<i>- Thi-Huong Giang Vu, Trung Hieu Hoang and Manh Tuan Nguyen</i> Assessing Web Security Risks Using Dynamic Bayesian Network	
16:05-16:25	<i>- Anh T. V. Nguyen and Mizuhito Ogawa</i> Automatic Stub Generation for Dynamic Symbolic Execution of ARM binary	<i>- Kenji Fukumoto, Risa Takeuchi, Hiroyuki Terada, Masafumi Bato and Akiyo Nadamoto</i> Method for Evaluating Quality of Automatically Generated Product Descriptions	
16:05-16:25	<i>- Hidetaro Tanaka, Tomoaki Tanaka, Ryoosuke Higashi, Tsutomu Sekibe, Shuichi Takada and Hironori Nakajo</i> Implementation of a RISC-V SMT Core in an AI processor	<i>- Taecheon Kim, Kyoung-Sook Kim and Yijun Duan</i> A Shape of Geo-tagged Media Bias in COVID-19 Related Twitter	

16:25-16:45	<p>- Anton Agafonov and Andrew Ponomarev Localization of Ontology Concepts in Deep Convolutional Neural Networks</p> <p>- Futo Yamamoto, Tadahiko Kumamoto, Yu Suzuki and Akiyo Nadamoto Methods of Calculating Usefulness Ratings of Behavioral Facilitation Tweets in Disaster Situations</p> <p>- Namal Rathnayake, Tuan Linh Dang and Yakinobu Hoshino Designing and Implementation of Novel Ensemble model based on ANFIS and Gradient Boosting methods for Hand Gestures Classification</p>	<p>Minh Hai Vu, Giang T. T. Nguyen, Hai Dang Tran, Thanh Trung Nguyen, Phan Thuan Do, Phi Le Nguyen and Kien Nguyen An Empirical Study of MPQUIC Schedulers in Mobile Wireless Networks</p>	
16:45-17:05	<p>- Duc-Anh Nguyen, Trong-Dat Nguyen, Phuong-Hanh Du, Nam-Hai Dao and Hoa Nguyen Ngoc EnsFace: An Ensemble Method of Deep Convolutional Neural Networks with Novel Effective Loss Functions for Face Recognition</p> <p>- Nhu Khoa Nguyen, Emanuela Boros, Gaël Lejeune, Antoine Doucet and Thierry Delahaut Utilizing Keywords Evolution in Context for Emerging Trend Detection in Scientific Publications</p>	<p>Papa Bara Diakhate, Tran-Tuan Chu, Mohamed Aymen Labiod, Brice Augustin, Hai-Anh Tran and Abdelhamid Mellouk Experimental Evaluation of Multiple Multipath Schedulers over Various Urban Mobile Environments</p>	
17:05-17:25	<p>- Trinh Van Chien and Thuong Nguyen Canh Error Resilient Deep Compressive Sensing</p> <p>Van Duc Khuat, Tuan Anh Tran, Minh Tuan Nguyen and Hai-Chau Le A Study on Machine Learning Based Gene Selection for Pediatric Sepsis Classification</p> <p>- Cong Phuoc Phan Covid-19 Deep Clustering: A Covid-19 Ontology construction method with research documents clustering and dynamic medical labeling</p>	<p>Hoang V.Vo, Duong H.Nguyen, Tuyen T.Nguyen, Hoa N.Nguyen and Duan V.Nguyen Leveraging AI-Driven Realtime Intrusion Detection by Using WGAN and XGBoost</p>	
18:30	<p>Gala dinner Diamond Ballroom 1 Wyndham Legend Halong</p>		
<p>3 December 2022 Wyndham hotel, Ha Long Bay</p>			
14:00	<p>Transfer to Hanoi</p>		