The First International Conference on Intelligence of Things (ICIT 2022)
Hanoi, August 17-19, 2022

Onsite Program at a Glance   **Online Program at a Glance**

DAY 1 (August 17, 2022)					
8.30-10.00	**Main Session** Chair(s): Assoc. Prof. Hong Anh Le (HUMG)				Zoom (tba)
	Welcome and Opening Remarks Prof. Thanh Hai Tran - HUMG Rector **Technical Reports** Assist. Prof. Nhu-Ngoc Dao (Sejong University, South Korea) **Steering Committee Remarks** Prof. Sungrae Cho, Chung-Ang University, South Korea MOU (HUMG, VNUA, QNU, HCMOU, HCMUT); ICIT Host 2023 (HCMUT)				
	Keynote Speech Topic: Big Data as an Enabler of Intelligence of Things Speaker: Prof. Gottfried Vossen (University of Muenster, Germany)				
	Tea Break				
Session I.A	**Theoretical Intelligence Analyses** Chair(s): Dr. Quang Vu - Nguyen (VKU)	Room No.	**Session I.C**	**Online Session I** Chair(s): Dr. The Son Tran (VKU)	Zoom (tba)
10.00-10.20	Applying Lecturer Expectation and Learning Retention to An Adaptive Learning System Tien Vu-Van, Huy Tran, Duy Tran Ngoc Bao, Hoang-Anh Pham, and Nguyen Huynh Tuong (Ho Chi Minh City University of Technology, VNU-HCM, Vietnam)		10.00-10.20	A-DEM: The Adaptive Differential Evolution Algorithm for Solving the Real-RCPSP Problem Huu Dang Quoc (Thuong Mai University, Vietnam) and Loc Nguyen The (Ha Noi National University of Education, Vietnam)	
10.20-10.40	Mathematical Expression Detection in Camera Captured Document Images Bui Hai Phong, Hoang Manh Thang and Thi-Lan Le (HUST, Vietnam)		10.20-10.40	An Investigation on Vietnamese Credit Scoring based on Big Data Platform and Ensemble Learning Quang-Linh Tran, Binh Van Duong, Gia-Huy Lam, Trong-Hop Do (University of Information Technology, Ho Chi Minh City, Vietnam), Dat Vuong (VKU, Vietnam)	
10.40-11.00	An intelligent method based on dissimilarity measure picture fuzzy and apply to supplier selection Nguyen Xuan Thao and Pham Quang Dung (Vietnam National University of Agriculture, Vietnam)		10.40-11.00	Analysis of the Effects of Stop-word Removal in Hate Speech Detection problem for Vietnamese Social Network Data Hanh Hong-Phuc Vo, Huy Hoang Nguyen and Trong-Hop Do (University of Information Technology, Ho Chi Minh City, Vietnam)	
11.00-11.20	A new intelligent computing method for scheduling and crashing projects with fuzzy activity completion times Nguyen Hai Thanh (VNU International School, Vietnam)		11.00-11.20	Applying similarity of intuitionistic fuzzy sets to rank Vietnamese stocks Quynh Tran Duc (International school, Vietnam national university, Hanoi, Vietnam), Thao Nguyen Xuan (Vietnam national university of agriculture, Vietnam), Dong Nguyen Doan (International school, Vietnam national university, Hanoi, Vietnam), and Thuan Nguyen Quang (International school, Vietnam national university, Hanoi, Vietnam)	
11.20-13.30	Lunch				
Session I.B	**Intelligence Services and Applications I** Chair(s): Dr. Van-Lam Ho (QNU)	Room No.	**Session I.D**	**Online Session II** Chair(s): Dr. Trong-Hop Do (UIT)	Zoom (tba)
13.30-14.15	**Keynote Speech** Topic: Distributed Systems – the next level in large-scale ecosystems Speaker: Prof. Schahram Dustdar (Vienna University of Technology, Austria)				
14.15-14.35	Evaluation of feature extraction methods for bee audio classification Thi Thu Hong Phan (FPT University, Vietnam), Huu Du Nguyen (Vietnam National University of Agrculture, Vietnam) and Doan Dong Nguyen (International School - Vietnam National University, Vietnam)		14.15-14.35	Context Graph Alignment using Adversarial Learning for Air Pollution Detection on IoT Sensor Systems Thien Pham, Tuan Bui, Trung Mai (HCMUT, Vietnam), Quan Le, Chuong Dang, Thuat Nguyen (UIT, Vietnam) and Tho Quan (HCMUT, Vietnam)	
14.35-14.55	Design of Yaw Controller for a Small Unmanned Helicopter Based on Fuzzy Logic Controller and PID-Based Adaptation Tri Quang Le (UTEHY, Vietnam)		14.35-14.55	Deep Convolutional Support Vector Machines for Human Activity Recognition Phuoc-Hai Huynh and Van Hoa Nguyen (An Giang University, Viet Nam National Ho Chi Minh City, Vietnam)	
14.55-15.10	Tea break				
15.10-15.30	An approach to monitoring solar farms in Vietnam using Google Earth Engine and satellite imagery Dung Nguyen, Bao Ngoc Dinh and Hong Anh Le (HUMG, Vietnam)		15.10-15.30	Structural Health Monitoring and IoT: Opportunities and Challenges Marzuki Kamal and Atif Mansoor (The University of Western Australia, Australia)	
15.30-15.50	A framework to verify the ABAC policies in web applications Thanh-Nhan Luong (Haiphong University of Medicine and Pharmacy, Vietnam), Hong-Anh Le (Hanoi University of Mining and Geology, Vietnam), Dinh-Hieu Vo and Ninh-Thuan Truong (University of Engineering and Technology, Vietnam National University, Vietnam)		15.30-15.50	Discovery the quality of UML models through an exploration of dataset in practice Khanh-Hoang Doan, The-Loc Nguyen and Mai-Huong Tran (Hanoi University of Mining and Geology, Vietnam)	
15.50-16.10	Aspect-based Sentiment Analysis with Deep Learning_A Multidomain and Multitask Approach Trang Tran Uyen (Vietnam-Korea University of Information and Communication Technology, The Danang University, Vietnam), Ha Hoang Thi Thanh (University of Economics, The Danang University, Vietnam), Phuong Dang Hoai (University of Science and Technology, The Danang University, Vietnam) and Riveill Michel (Universite' Côte d'Azur, France)		15.50-16.10	Distributed deep learning for big data time series analysis Dinh-Quang Hoang, Dang-Khoa Tran and Trong-Hop Do (University of Information Technology, Ho Chi Minh City, Vietnam)	
16.10-16.30			16.10-16.30	Edge Computing For Wireless Sensor Network Thien An Nguyen, Nhu Hung Huynh and Trong Nhan Le (Ho Chi Minh City University of Technology, Vietnam)	
DAY 2 (August 18, 2022)					
Session II.A	**Intelligence Services and Applications II** Chair(s): Assoc. Prof. Ngoc-Thinh Tran (HCMTU)	Room No.	**Session II.C**	**Online Session III** Chair(s): Dr. Xuan-Viet Le (QNU)	Zoom (tba)
8.30-9.30	**Keynote Speech** Topic: Spatio-Temporal Forecasting Models for Renewable Energy Speaker: Prof. O-Joun Lee (The Catholic University of Korea, Rep. of Korea)				
9.30-9.50	Combined local and global features for actionrecognition from motion sensors Trung-Hieu Le (Dainam University, Vietnam), Quoc Tuan Nguyen, Thanh-Hai Tran (Hanoi University of Science and Technology, Vietnam) and Cuong Pham (Posts & Telecom. Institute of Technology and VinAI Research, Vietnam)		9.30-9.50	Indoor Localization Simulation Based on LoRa Ranging Thanh Danh Pham, Nhut Quang Tran and Trong Nhan Le (Ho Chi Minh University of Technology, Vietnam)	
9.50-10.10	Combining Artificial Intelligence with the Internet of Things in Microalgae Cultivation Nga Le-Thi-Thu, Trieu Nguyen-Van-Duong and Tinh Doan-Van (Vietnam - Korea University of Information and Communication Technology, Vietnam)		9.50-10.10	Semantic Interoperability Issues and Challenges in IoT: A Brief Review Devamekalai Nagasundaram, Selvakumar Manickam and Shankar Karuppayah (Universiti Sains Malaysia, Malaysia)	
10.10-10.30	Tea break				
10.30-10.50	Computer-Aided Provisional Diagnosis System Using Machine Learning Vu-Thu-Nguyet Pham, Quang-Chung Nguyen, Van-To-Thanh Nguyen and Quang-Vu Nguyen (Vietnam-Korea University of ICT, Vietnam)		10.30-10.50	Naturalness improvement of Vietnamese Text-to-Speech System using Diffusion Probabilistic modelling and Unsupervised Data Enrichment Tung Tran, Tuan Nguyen, Hung Bui (Ho Chi Minh City University of Technology, Vietnam), Khuong Nguyen (FPT Software Company Limited, Vietnam), Nghia Gia Vo (Department of Information and Communication of Binh Dinh Province), Vietnam, Tran Vu Pham and Tho Quan (Ho Chi Minh City University of Technology, Vietnam)	
10.50-11.10	Recommendation System with Artificial Intelligence for Welding Quality Improvement Tin Tran Trung (FPT University, Vietnam), Hee-Dong Jang (Dong-A University, South Korea) and Anh Quang Nguyen Vu (Vietnam-Korea University of Information and Communication Technology, Vietnam)		10.50-11.10	Real-Time Traffic Congestion Forecasting using Prophet and Spark Streaming Ngan-Linh Nguyen, Hoang-Thong Vo, Gia-Huy Lam and Trong-Hop Do (University of Information Technology, Ho Chi Minh City, Vietnam)	
11.10-11.30	Sentence-level Sentiment Analysis Using a CNN model on Contextualized Word Representations Huyen Trang Phan (Yeungnam University, South Korea), Ngoc Thanh Nguyen (Wroclaw University of Science and Technology, Poland), and Dosam Hwang (Yeungnam University, South Korea)		11.10-11.30	Real-time traffic flow prediction using Big Data analytics Dang-Khoa Tran, Dinh-Quang Hoang, Viet-Thang Le, Minh-Duc Nguyen Thai and Trong-Hop Do (University of Information Technology, Ho Chi Minh City, Vietnam)	
11.30-13.30	Lunch				
Session II.B	**Intelligence Service Experiments** Chair(s): Assoc. Prof. Nguyen Thi Thuy (VNUA)	Room No.	**Session II.D**	**Online Session IV** Chair(s): Assoc. Prof. Le Van Hung (HUMG)	Zoom (tba)
13.30-14.15	**Keynote Speech** Topic: On the Temporal-spatial Data of COVID-19 Speaker: Prof. Jiming Chen (Zhejiang University of Technology, China)				
14.15-14.35	Stock Price Prediction in Vietnam using Stacked LSTM Nguyen Trung Tuan (National Economics University, Vietnam), Thu Hang Nguyen, and Thanh Thi Hien Duong (Hanoi University of Mining and Geology, Vietnam)		14.15-14.35	Intelligent Scene Text Recognition in Streaming Videos Minh-Quan Ha, Vy-Hao Phan, Bao D.Q. Nguyen, Hoai-Bao Nguyen, Trong Hop Do (University of Information Technology, Ho Chi Minh City, Vietnam), Quang-Dung Pham (Vietnam National University of Agriculture, Vietnam) and Nhu-Ngoc Dao (Sejong University, South Korea)	
14.35-14.55	A High-Performance FPGA-Based Feature Engineering Architecture for Intrusion Detection System in SDN Networks Tran Hoang Quoc Bao (Ho Chi Minh City University of Technology, Vietnam), Long Tan Le (The University of Sydney, Australia), Tran Ngoc Thinh (Ho Chi Minh City University of Technology, Vietnam) and Cong-Kha Pham (University of Electro-Communications (UEC), Japan)		14.35-14.55	Safety helmet detection at construction sites using YOLOv5 and YOLOR Van Than Tran, Thanh Sang To (Ho Chi Minh City Open University, Vietnam), Tan-No Nguyen (Kyungpook National University, South Korea) and Thanh Danh Tran (Ho Chi Minh City Open University, Vietnam)	
14.55-15.15	An FPGA-based Solution for Convolution Operation Acceleration Trung Pham-Dinh, Bao Bach-Gia, Lam Luu-Trinh, Minh Nguyen-Dinh, Hai Pham-Duc, Khoa Bui-Anh, Xuan-Quang Nguyen and Cuong Pham-Quoc (HCMUT, Vietnam)		14.55-15.15	Vietnamese Sentence Paraphrase Identification using Sentence-BERT and PhoBERT Long Phan, Hieu Le, Phuoc Doan, Duy Tran and Nguyen Huynh (HCMUT, Vietnam)	
15.15-15.30	Tea break				
15.30-15.50	Mangosteen Fruit Detection Using Improved Faster R-CNN Trung Hai Trinh, Bui Xuan Thien (Vietnam - Korea University of Information and Communication Technology, Vietnam), Huong Tran Thu (Thu Dau Mot University, Vietnam), Ha Huy Cuong Nguyen (Vietnam - Korea University of Information and Communication Technology, Vietnam) and Duy Khanh Ninh (The University of Danang – University of Science and Technology, Vietnam)		15.30-15.50	A study of filter-based feature selection in software fault prediction Phuong Ha Thi Minh (Vietnam-Korea University of Information and Communication Technology, Vietnam), Le Thi My Hanh (Danang University of Science and Technology, Vietnam) and Thanh Binh Nguyen (Vietnam-Korea University of Information and Communication Technology, Vietnam)	
15.50-16.10	SSL-MedImNet: Self-Supervised Pre-training of Deep Neural Network for COVID-19 Diagnosis Hoang N.M. Tran (University of Greenwich (Vietnam), Vietnam), Son T. Tran (Vietnam - Korea University of Information and Communications Technology, Vietnam), Nghiem D. Nguyen (FPT Greenwich Center (University of Greenwich – Alliance with FPT Education), Vietnam) and Tuan M. Le (Paradox Inc., Vietnam)		15.50-16.10	Image Segmentation Of Concrete Cracks Using SegNet Tan-No Nguyen (Kyungpook National University, South Korea), Van-Than Tran (Ho Chi Minh City Open University, Vietnam), Seung-Wook Woo and Sung-Sik Park (Kyungpook National University, South Korea)	
			16.10-16.30	Mobile applications testing based on Bigraphs and Dynamic feature Petri nets. Thị Thanh Bình Lê (University of Science and Education (University of Danang), Vietnam), Oum-El-Kheir Aktouf, Ioannis Parissis (Univ. Grenoble Alpes, Grenoble INP, France) and Thanh Binh Nguyen (The University of Danang - Vietnam Korea University of Information and Communication Technology, Vietnam)	
DAY 3 (August 19, 2022)					
	Open doctoral seminars and workshopsIndustrial demos and showcases				