MAPR 2022 Conference Agenda (Tentative)

08:00am-08:30am	**Registration**
08:30am-08:45am	**Opening and Welcome Addresses** *Welcome speech,* Prof. Tu-Anh Nguyen-Hoang, UIT, General Co-Chair *Conference summary*, Prof. Duc-Dung Nguyen, PC Co-Chair
08:45am-09:30am	**Keynote 1: Action Recognition for People Monitoring** **Speaker: Professor François Brémond (STARS – INRIA – Sophia Antipolis, France)** *Chair: Prof. Thi-Lan Le, SEEE, HUST*
09:30am-10:30am	**Session 1-A: Object Detection and Recognition** *Chair: Dr. Tuan-Anh Tran, VinAI* 1. Phuc Tran Chi, Anh-Khoa Nguyen Vu and Vinh-Tiep Nguyen, ***Baby Learning With Vision Transformer For Face Recognition*** 2. Adri Priadana, Muhamad Dwisnanto Putro and Kang-Hyun Jo, ***An Efficient Face-Based Age Group Detector On A Cpu Using Two Perspective Convolution With Attention Modules*** 3. Viet Hang Duong, Manh Quan Bui and Jia Ching Wang, ***A Wise Matrix Factorization Model For Image Representation*** 4. Duy-Linh Nguyen, Dwisnanto Putro, Xuan-Thuy Vo, Tien-Dat Tran and Kang-Hyun Jo, ***Fire Warning Based On Convolutional Neural Network And Inception Mechanism***

10:30am-10:45am	**Coffee Break**
10:45am-12:00pm	**Session 1-B: Multimedia Analysis** *Chair: Professor Hiroo Sekiya, Chiba, Japan* 1. Thanh Tuan Nguyen, Thanh Phuong Nguyen and Thanh-Hai Tran, ***Detecting Reflectional Symmetry Of Binary Shapes Based On Generalized R-Transform*** 2. Thi-Lich Nghiem, Viet-Duc Le, Thi-Lan Le, Pierre Maréchal, Daniel Delahaye and Andrija Vidosavljevic, ***Applying Bayesian Inference In A Hybrid CNN-LSTM Model For Time Series Predictio***n 3. Thanh Tuan Thai, Youngsik Yun and Heejune Ahn, ***High-Quality 3D Clothing Reconstruction And Virtual-Try-On: Pants Case*** 4. Manh Khanh Ngo Huu, Vinh Quang Ngo, Thanh-Danh Nguyen, Vinh-Tiep Nguyen and Thanh Duc Ngo, ***Antique Photo Restoration And Colorization Via Generative Model*** 5. Ha Do Thanh and Hoa Nguyen Khanh, ***Supporting Thyroid Cancer Diagnosis Based On Cell Classification Over Microscopic Images***
12:00pm-01:30pm	**Lunch Break**
01:30pm-02:15pm	**Keynote 2: Drone Imagery for Artificial Intelligence Service** **Speaker: Professor Kanghyun Jo (School of Electrical Engineering, University of Ulsan, Korea)** *Chair: Prof. Duc-Dung Nguyen, VAST, Vietnam*
02:15pm-03:30pm	**Session 1-C: Object Tracking and Activity Recognition** *Chair: Prof. Francois Bremond, INRIA, France* 1. Hieu Le Trung, Thanh-Hai Tran and Cuong Pham, ***Human Action Recognition From Inertial Sensors With***

	Transformer 2. Phuong-Dung Nguyen, Hong-Quan Nguyen, Thuy-Binh Nguyen, Thi-Lan Le, Thanh-Hai Tran, Hai Vu and Quynh Nguyen Huu, ***A New Dataset And Systematic Evaluation Of Deep Learning Models For Student Activity Recognition From Classroom Videos*** 3. Xuan-Thuy Vo, Tien-Dat Tran, Duy-Linh Nguyen and Kang-Hyun Jo, ***Balancing Multiple Object Tracking Objectives Based On Learned Weighting Factors*** 4. Hong-Quan Nguyen, Thuy-Binh Nguyen, Kien Tran, Van-Nam Hoang, Thi-Lan Le, Thanh-Hai Tran and Hai Vu, ***End-To-End Deep Learning-Based Framework For Driver Action Recognition*** 5. Tien-Dung Mai, Tien Do and Duy-Dinh Le, ***A Framework For Evaluating Video Summary Approaches***
03:30pm-03:45pm	**Coffee Break**
03:45pm-05:15pm	**Session 1-D: Text and Image Processing Techniques** *Chair: Prof. Kanghyun Jo, Ulsan, Korea* 1. Doanh Bui Cao, Nghia Nguyen Hieu, Nguyen Vo Duy, Uyen Thai Thuy Han and Khang Nguyen Tan Tran Minh, ***Vi-Drsnet: A Novel Hybrid Model For Vietnamese Image Captioning In Healthcare Domain*** 2. Thai Uyen, ***Efficient Construction For Path Expression In XML Data*** 3. Bich-Van Nguyen-Thi, Triet Le Phan, Thua Ngoc Nguyen and Thanh Duc Ngo, ***A Crowdsourcing Data Annotation System For Vietnamese Scene Text Detection*** 4. Dung Truong, Thuan Trong Nguyen, Nguyen D. Vo and Khang Nguyen, ***Gadocnet: Rethinking The Anchoring Scheme And Loss Function In Vietnamese Document***

	Images 5. Dinh Luu Toan, Ngan Nguyen Luu Thuy, Thanh Pham Thua Tieu and Tien Dang Quoc, ***Viembot: A Empathetic Voicebot System For The Vietnamese Language***
06:00pm-09:00pm	**Gala Diner** **Best Paper Awards** ***Chair***: *Prof. Duc-Dung Nguyen, VAST, Vietnam*

October 14th, 2022 **Place: Novotel Hotel, Phu Quoc**	

08:30am-09:15am	**Keynote 3: Wireless Brain-Inspired Computing (WiBIC)** **Speaker: Professor Hiroo Sekiya (Graduate School of Engineering, Chiba University, Chiba, Japan)** *Chair: Prof. Duc-Thanh Ngo, UIT, Vietnam*
09:15am-10:15am	**Session 2-A: Object Detection and Classification** *Chair: Prof. Thanh-Phuong Nguyen, Toulon, France* 1. Thanh Ha Do, Huy Le and Trung Hieu Ha, *Covid-Net Network And Application On Support Diagnosis Covid-19 Over X-Ray Images* 2. Thi-Anh-Loan Trinh, The Anh Pham and Van-Dung Hoang, *Layout-Invariant License Plate Detection And Recognition* 3. Van-Xung Vu, Thi-Nhi Bui, Thi-Lan Le, Bui Hai Phong and Hoang Manh Thang, *Transformer-Based Method For Mathematical Expression Recognition In Document Images* 4. Minh Dinh, Vu L. Bui, Doanh C. Bui, Long Phi Duong, Nguyen D. Vo and Khang Nguyen, *Performance Evaluation of Optimizers For Deformable-Detr In Natural Disaster Damage Assessment*
10:15am-10:30am	**Coffee Break**
10:30am-11:15am	**Tutorial: StyleGAN Series And Their Applications In Image Generation And Manipulation** **Speaker: Dr. Anh Tran, VinAI Research** *Chair: Prof. Thanh-Hai Tran, SEEE, HUST*
11:15am-12:30pm	**Session 2-B: Deep Learning for Multimedia Analysis**

	Chair: Dr. Khoi Nguyen, VinAI Research 1. Huu Du Nguyen, Tai Quang Dinh Nguyen, Hien Nguyen Thi, Bui Quoc Lap and Thi Thu Hong Phan, ***The Use Of Machine Learning Algorithms For Evaluating Water Quality Index: A Survey And Perspective*** 2. Trung Kien Tran, Chi Thanh Nguyen, Nhu Hai Phung, Thi Thu Hang Truong, Danh Cuong Tran, Thi Trang Nguyen and Thi Minh Phuong Nguyen, ***Evaluation Of Synthetic Data Generating Methods In Down Syndrome Prediction During The First Trimester Screening In Vietnam*** 3. Thuan Nguyen Duc, Thai Hoang Anh, Manh Bui Quang, Trung Tran Quang and Hong Hoang Si, ***Edge-Focus Thermal Image Super-Resolution Using Generative Adversarial Network*** 4. Hoang-Anh Nguyen, Hong-Quan Nguyen, Thuy-Binh Nguyen, Van-Chien Pham and Thi-Lan Le, ***Exploiting Matching Local Information For Person Re-Identification*** 5. Sinh-Huy Nguyen, Thi-Thu-Hong Le, Thanh-Tung Phan, Hoang-Bach Nguyen, Hai Vu and Chi-Thanh Nguyen, ***Improving The Hand Pose Estimation From Egocentric Vision Via Hope-Net And Mask R-CNN***
12:30pm-02:00pm	**Lunch Break**
02:00pm-02:45pm	**Tutorial: Few-Shot Object Segmentation In Images** **Speaker: Dr. Khoi Nguyen, VinAI Research** *Chair: Prof. Hai Vu, SEEE, HUST*
02:45pm-03:45pm	**Session 2-C: AI-Enabled Hardware and System-on-Chip** 1. Duc Khai Lam, Duc The Vu and Tien Dat Tran, ***An Efficient Image Compression Hardware Design Architecture***

	2. Duy Doan, Hoang Bui Huy and Hoa Pham Trung, ***An Implementation of Low-Cost Auto-Balancing Embedded System for Safe Mechanism Using 3-DOF Stewart Model*** 3. Nhan Nguyen, Ngan Dinh, Nhut Tran And Khang Nguyen, ***Machine Learning For Assessment And Prediction Of Nitrite In The Aquaculture Water*** 4. Huy Che Quang, Tung Do Thanh and Cuong Truong Van, ***Character Time-series Matching For Robust License Plate Recognition***
03:45pm-04:00pm	**Coffee Break**
04:00pm-05:00pm	**Session 2-D: AI-Enabled Hardware and System-on-Chip** 1. Duong Tran, Thinh Le, Tam Duong, Minh-Quan Pham and Son Nguyen, ***FPGA Design for Deep Q-Network: A Case study in Cartpole Environment*** 2. Minh-Quan Pham, Hong-Phong Ly, Huy Che Quang, Tin Nguyen-Van, Tung Do Thanh and Minh Le-Hoang, ***Transform An Electronic Golf Cart Into An Autonomous Vehicle*** 3. The Tung Than, Duc Khanh Duy Danh, Huu Luong Nguyen and Minh Son Nguyen, ***Researching And Implementing The Behavioral Recognition Algorithm Of The Elderly On Jetson Nano*** 4. Duy Dieu Nguyen, Manh Hung Le, Xuan Huy Nguyen, Hieu Truong Ngo and Minh Son Nguyen, ***Smart Desk in Hybrid Classroom: Automatic Attendance System based on Face Recognition using MTCNN and ARCFACE***
05:00pm-05:10pm	**Closing Ceremony** *Prof. Duc-Dung Nguyen, VAST*