

Thursday, December 19

08:15-09:00	REGISTRATION <i>Hall</i>		
09:00-09:30	OPENING <i>Room Pink Diamond</i>		
09:30-10:20	Plenary talk 1: Robust Stochastic Optimization Speaker: Melvyn Sim Chairman: <i>Tao Pham Dinh</i> <i>Room Pink Diamond</i>		
10:20-10:50	COFFEE BREAK <i>Hall</i>		
	TM1: SS - DC Programming & DCA 1 <i>Chairman: Hoai Minh Le</i> <i>Room Pink Diamond</i>	TM2: Computer Vision <i>Chairman: Thanh-Nghi Do</i> <i>Room White Diamond</i>	TM3: SS - Optimization and Data Science in Energy and Cloud Computing <i>Chairman: Viet Hung Nguyen</i> <i>Room Yellow Diamond</i>
11:00-11:22	<i>DCA with successive DC decomposition for convex piecewise-linear fitting</i> <u>Vinh Thanh Ho</u> , Hoai An Le Thi and Tao Pham Dinh	<i>Stacking of SVMs for classifying intangible cultural heritage images</i> <u>Thanh-Nghi Do</u> , The-Phi Pham, Nguyen-Khang Pham, Huu-Hoa Nguyen, Karim Tabia and Salem Benferhat	<i>Optimal subscription of electricity contract</i> <u>David Wu</u> , Viet Hung Nguyen, Michel Minoux and Hai Tran
11:22-11:45	<i>Solving Efficient Target-Oriented Scheduling in Directional Sensor Networks by DCA</i> <u>Anh Son Ta</u> , Hoai An Le Thi and Tao Pham Dinh	<i>Assessment of the water area in the lowland region of the Mekong River using MODIS EVI time series</i> <u>Chien Pham Van</u> and Giang Nguyen-Van	<i>Efficient Processing of Recursive Joins on Large-Scale Datasets in Spark</i> Thuong-Cang Phan, <u>Anh-Cang Phan</u> , Thi-To-Quyem Tran and Ngoan-Thanh Trieu
11:45-12:07	<i>A Novel Approach for Travel Time Optimization in Single-track Railway Networks</i> <u>Quang Thuan Nguyen</u> and Duc Anh Nguyen	<i>Palmprint Recognition Using Discriminant Local Line Directional Representation</i> Van Thien Hoang, <u>Dang Hung Kiet</u> , Vu Van Giang and Le Hoang Thai	<i>Homomorphic Encryption-based Privacy - Aware Design for Collaborative Information Sharing in Cybersecurity Cloud Platform</i> <u>Thanh Hai Nguyen</u> , Aymen Boudguiga, Sergiu Carпов and Vincent Herbert
12:07-12:30		<i>Fusing of Deep Learning, Transfer Learning and GAN for Breast Cancer Histopathological Image Classification</i> Vinh Truong Hoang and <u>Mai Bui Thuy Huvnh</u>	

12:30-13:40	LUNCH		
14:00-14:50	Plenary talk 2: Robust Optimization: the need, the challenge, the success Speaker: Aharon Ben-Tal Chairman: <i>Hoai An Le Thi</i> Room Pink Diamond		
14:50-15:20	COFFEE BREAK <i>Hall</i>		
	TA1: SS - DC Programming & DCA 2 Chairman: <i>Ngoc Anh Pham</i> Room Pink Diamond	TA2: Classification Methods and Applications Chairman: <i>Pierre Hanse</i> Room White Diamond	TA3: SS - Data Analytics in Business Chairman: <i>Quang Thuan Nguyen</i> Room Yellow Diamond
15:20-15:43	<i>Yosida approximation methods for generalized equilibrium problems</i> <u>Ngoc Anh Pham</u> , Hoai An Le Thi and Tao Pham Dinh	<i>Using Support Vector Machine to Monitor Behaviour of an Object based WSN System</i> <u>Nga Ly-Tu</u> , Qui Vo-Phu and Thuong Le-Tien	<i>Some applications of a computational optimization technique in business data analysis</i> <u>Hai Thanh Nguyen</u>
15:42-16:06	<i>A New Solution Method for a Mean-Risk Mixed Integer Nonlinear Program in Transportation Network Protection</i> <u>Vuong Le Luong</u> , Quang Thuan Nguyen and Duc Quynh Tran	<i>Learning Rough Set based Classifiers using Boolean Kernels</i> Hung Son Nguyen and <u>Sinh Hoa Nguyen</u>	<i>Oil and Gas Industry: Key Metrics and Stock Performance</i> <u>Thinh Le</u>
16:06-16:30	<i>A new efficient algorithm for maximizing the profit and the compactness in land use planning problem</i> <u>Duc Quynh Tran</u>	<i>Algorithms for minimum sum of squared errors clustering</i> <u>Pierre Hansen</u>	<i>Using Design Science to Explore and Develop Machine Learning Driven Artificial Intelligence Solutions in Enterprises</i> <u>Lemai Nguyen</u>
18:30-21:00	GALA DINNER		

SS = Special Session

Friday, December 20

08:30-09:00	REGISTRATION <i>Hall</i>		
	FM1: Machine Learning Techniques in Security <i>Chairman: Dosam Hwang Room Pink Diamond</i>	FM2: Nonconvex Optimization and Applications 1 <i>Chairman: Akiko Yoshise Room White Diamond</i>	FM3: Knowledge Information and Engineering Systems 1 <i>Chairman: Satyam Paul Room Yellow Diamond</i>
09:00-09:22	<i>Secure and Robust Watermarking Scheme in Frequency Domain Using Chaotic Logistic Map Encoding</i> <u>Phuoc-Hung Vo</u> , Thai-Son Nguyen, Van-Thanh Huynh, Thanh-C Vo and Thanh-Nghi Do	<i>Two approaches for solving hard conic optimization problems</i> Yuzhu Wang, Shinichi Kanoh and <u>Akiko Yoshise</u>	<i>Discrete Time Sliding Mode Control of Milling Chatter</i> <u>Satyam Paul</u> and Magnus Löfstrand
09:22-09:45	<i>A Survey on forecasting models for preventing terrorism</i> <u>Dinh Tuyen Hoang</u> , Botambu Collins, Hyojeon Yoon, Ngoc-Thanh Nguyen and Dosam Hwang	<i>An adapted derivative-free optimization method for an optimal design application with mixed binary and continuous variables</i> <u>Thi Thoi Tran</u> , Delphine Sinoquet, Sébastien Da Veiga and Marcel Mongeau	<i>Belief merging for Possibilistic belief bases</i> <u>Thi Thanh Luu Le</u> and Trong Hieu Tran
09:45-10:10	<i>Applying MAS1 algorithm to improve the classification performance of imbalanced data in fraud detection</i> <u>Thi-Lich Nghiem</u> and Thi-Toan Nghiem	<i>A triple stabilized bundle method for constrained nonconvex nonsmooth optimization</i> Andre Dembele, <u>Babacar Mbaye Ndiaye</u> , Guy Degla and Adam Ouorou	<i>New Feed Rate Optimization Formulation in a Parametric Domain for 5-Axis Milling Robots</i> <u>Anh My Chu</u> , Xuan Bien Duong and Van Cong Nguyen
10:10-10:40	COFFEE BREAK <i>Hall</i>		
10:40-11:30	Plenary talk 3: Randomized algorithms for big data: From optimization to machine learning Speaker: Martin J. Wainwright Chairman: <i>Hoai An Le Thi</i> <i>Room Pink Diamond</i>		
	Semi-Plenary talk <i>Room Pink Diamond</i>	FM4: Deep Learning <i>Chairman: Vinh Thanh Ho Room White Diamond</i>	FM5: Data Processing <i>Chairman: Hoai Minh Le Room Yellow Diamond</i>
11:30-11:52	<i>Global optimization of a class of DC functions over a polytope</i> <u>Takahito Kuno</u> (11:30 – 12:05)	<i>Deep Clustering with Spherical Distance in Latent Space</i> <u>Bach Tran</u> and Hoai An Le Thi	<i>Reweighted L1 Algorithm for Robust Principal Component Analysis</i> <u>Hoai Minh Le</u> and Xuan Thanh Vo

11:52-12:15		<i>Attention-based biLSTMs for Understanding Students' Learning Experiences on Social Media</i> <u>Oanh Tran</u>	<i>eDTWBI: effective imputation method for univariate time series</i> <u>Thi Thu Hong Phan</u> , Émilie Poisson Caillault and André Bigand
12:15-12:40		<i>A Channel-Pruned and Weight-Binarized Convolutional Neural Network for Keyword Spotting</i> Jiancheng Lyu and <u>Spencer Sheen</u>	<i>Speech Assessment Based on Entropy and Similarity Measures</i> <u>Michele Della Ventura</u>
12:40-14:10	LUNCH		
14:10-15:00	Plenary talk 4: Nonconvex non-smooth optimization methods for reducing complexity of deep neural networks Speaker: Jack Xin Chairman: <i>Tao Pham Dinh</i> <i>Room Pink Diamond</i>		
15:00-15:30	COFFEE BREAK <i>Hall</i>		
	FA1: Nonconvex Optimization and Applications 2 <i>Chairman: Duc Manh Nguyen</i> <i>Room Pink Diamond</i>	FA2: Machine Learning Techniques in Economy <i>Chairman: Quang Vinh Dang</i> <i>Room White Diamond</i>	FA3: Knowledge Information and Engineering Systems 2 <i>Chairman: Ha Duyen Trung</i> <i>Room Yellow Diamond</i>
15:30-15:53	<i>A Combination of CMAES-APOP algorithm and quasi-Newton method</i> <u>Duc Manh Nguyen</u>	<i>An Intensive Empirical Study of Machine Learning Algorithms for Predicting Vietnamese Stock Prices</i> <u>Phuong Nguyen-Thanh</u> , Duc Van-Tien, Tan Le-Nhat, Thanh-Tan Mai and Khuong Nguyen-An	<i>Opensource Based IoT Platform and LoRa Communications with Edge Device Calibration for Real-time Monitoring Systems</i> <u>Ha Duyen Trung</u> and Nguyen Tai Hung
15:52-16:16	<i>Numerical technologies for investigating optimal control problems with free right-hand end of trajectories</i> <u>Tatiana Zarodnvuk</u> , Aleksander Gornov, Anton Anikin and Pavel SoroKovikov	<i>Reinforcement Learning in Stock Trading</i> <u>Quang Vinh Dang</u>	<i>An improvement of applying multi-objective optimization algorithm into higher order mutation testing</i> <u>Quang Vu Nguyen</u>
16:16-16:40	<i>A Genetic Algorithm Approach for Scheduling Trains Maintenance under Uncertainty</i> <u>Hue Chi Lam</u> , Hanyu Gu and Yakov Zinder	<i>Improvement of Production Layout in the Furniture Industry in Indonesia with the Concept of Group Technology</i> <u>Orchida Dianita</u> , Thomas Djorgie and Muhammad Kusumawan Herliansyah	<i>A probability-based close domain metric in lifelong learning for multi-label classification</i> <u>Thi-Ngan Pham</u> , Quang-Thuy Ha, Minh-Chau Nguyen and Tri-Thanh Nguyen

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