



VIASM
VIETNAM INSTITUTE FOR
ADVANCED STUDY IN MATHEMATICS

Vietnam Operations Research Network Annual Meeting

Date: 28-29/08/2024

Location: National Economics University, 207 Giai Phong, Dong Tam, Hai Ba Trung, Ha Noi

Conference room & Tea break: Room G1, Floor 1, Building A1

Lunch: Room 1609, Floor 16, Building A1

Banquet: Gala Dinner Room, Floor 17, Building A1

Day 1 - 28/08/2024	
08:30-09:00	Registration
09:00-09:15	Welcome speech
09:15-10:15	<p>Keynote 01: Combinatorial aspects of the UCP problem: complexity, mathematical programming and symmetry breaking</p> <p><i>Khía cạnh tổ hợp của bài toán UCP: Độ phức tạp tính toán, Quy hoạch toán học và các cách phá vỡ cấu trúc đối xứng</i></p> <p style="text-align: right;">Prof. Pierre Fouilhoux <i>Université Sorbonne Paris Nord</i></p> <p>Chair: Assoc. Prof. Huynh Thi Thanh Binh (Hanoi University of Science and Technology)</p>
10:15-10:30	Coffee break
10:30-11:30	<p>Theme 1: Operations Research Methods and Applications in Logistics and Supply Chain Management - Session 1</p> <p>Chair: Assoc. Prof. Nguyen Trung Thanh (National Economics University)</p> <ol style="list-style-type: none"> 1. 10:30-10:45: <i>A Hybrid Elk Herd Optimization – Evolution Based Approach for Order Consolidation Problem</i> - Vo Thi Thuy Duyen, Tran Duc Khiem, Phan Duy Thuc, Nguyen Van Hop 2. 10:45-11:00: <i>Simulation-based Simulated Annealing Algorithm for solving Dynamic Patient Admission Scheduling problem</i> - Luu Nguyen Minh Thu, Ha

	<p>Thi Xuan Chi</p> <p>3. 11:00-11:15: <i>The Parallel Drone Scheduling Travelling Salesman Problem with Lockers : Mathematical model and Metaheuristic</i> - Thu Trang Hoa, Minh Anh Nguyen, Minh Hoàng Hà</p> <p>4. 11:15-11:30: <i>Decision Making Model For Frozen Distribution Using Cross-Dock</i> - Hoai-Phuc Tran, Minh-Phuong Vu, Mai-Ha Phan</p>
11:30-13:30	Lunch
13:30-14:45	<p>Theme 1: Operations Research methods and Applications in Logistics and Supply Chain Management - Session 2</p> <p><i>Chair: Dr. Nguyen Hong Thanh (University of Oregon)</i></p> <p>1. 13:30-13:45: <i>A Hybrid Metaheuristic Approach For Flow Shop Scheduling Problem</i> - Huong N. Le, Giang N. T. Vu, Duyen N. M. Vo, Hop V. Nguyen</p> <p>2. 13:45-14:00: <i>Deep Reinforcement Learning for Flexible Job Shop Scheduling Problems in Semiconductor Manufacturing</i> - Duy Tan Doan, Anh H.G. Nguyen</p> <p>3. 14:00-14:15: <i>Integrated Decision-Making Model Across Departments In Pharmaceutical Company</i> - Dinh-Huan Le, Mai-Ha Phan</p> <p>4. 14:15-14:30: <i>Sustainable Supply Chain Development and Mitigation Strategies: Preventive and Control Approaches</i> - Minh Nhat Nguyen, Huy Quang Truong, Nhung Vu, Nichapa Phraknoi, Quynh Nguyen Huong Le</p> <p>5. 14h30-14h45: <i>The Revisit Flying Sidekick Travelling Salesman Problem</i> - Cuong Trung Dang, Minh Vu Duc, Minh Hoàng Hà</p>
14:45-15:00	Coffee break
15:00-16:00	<p>Theme 1: Operations Research and Applications in Logistics and Supply Chain Management - Session 3</p> <p><i>Chair: Dr. Nguyen Hong Thanh (University of Oregon)</i></p> <p>1. 15:00-15h15: <i>Multifactorial Evolutionary Algorithm and Tabu Search for Minimum Latency Problem in Post-Disaster</i> - Ha Bang Ban</p> <p>2. 15:15-15:30: <i>Optimising Manufacturing Material Handling with Simulation-Based Heuristic: A case study of a Semiconductor Manufacturing Factory</i> - Dinh Ngoc Vinh Giang, Ha Thi Xuan Chi</p> <p>3. 15:30-15:45: <i>Supply Chain Optimization Model Combining Deep Learning and Reinforcement Learning</i> - Hoang Do Thanh Tung, Pham Van Khanh, Ly Van Kien</p> <p>4. 15:45 - 16:00: <i>The Latency Parallel Drone Scheduling Travelling Salesman Problem</i> - Nguyen Minh Anh, Tien-Thanh Mai, Quy Ta Dinh, Minh Hoàng Hà</p>

Day 2 - 29/08/2024	
08:30-09:00	Registration
09:00-10:00	<p>Keynote 02: Leveraging Operations Research Techniques in Language Models <i>Sử dụng Vận trù học trong Các Mô hình Ngôn ngữ</i></p> <p style="text-align: right;">Dr. Nguyen Viet Anh <i>Chinese University of Hong Kong</i></p> <p>Chair: Assoc. Prof. Nguyen Van Hop (<i>International University - VNU - HCMC</i>)</p>
10:10-10:15	Coffee break
10:15-11:30	<p>Theme 2: Operations Research and Applications in Business, Economics, Social Networks and Other Domains - Session 4</p> <p>Chair: Dr. Nguyen Viet Anh (<i>Chinese University of Hong Kong</i>)</p> <ol style="list-style-type: none"> 1. 10:15-10:30: <i>Towards Efficient Pareto-optimal Utility-Fairness between Groups in Repeated Rankings</i> - Phuong Dinh Mai, Duc-Trong Le, Tuan-Anh Hoang, Dung D. Le 2. 10:30-10:45: <i>Generative Conditional Distributions by Neural (Entropic) Optimal Transport</i> - Nguyen Ngoc Bao, Nguyen Tuan Binh, Nguyen Viet An 3. 10:45-11:00: <i>Improved Parallel Algorithm for Non-Monotone Submodular Maximization under Knapsack Constraint</i> - Canh V. Pham, Dung T.K. Ha, Tan D. Tran 4. 11:00-11:15: <i>Information Design for Multiple Independent and Self-Interested Defenders: Work Less, Pay Off More</i> - Chenghan Zhou, Andrew Spivey, Haifeng Xu, Thanh H. Nguyen 5. 11:15-11:30: <i>Controllable Expensive Multi-objective Learning Via Stein Variational Gradient Descent With Hypernetworks</i> - Minh-Duc Nguyen, Quang-Huy Nguyen, Long P. Hoang, Mai-Phuong Dinh, Dung D. Le
11:30-13:30	Lunch
13:30-14:45	<p>Theme 2: Operations Research and Applications in Business, Economics, Social Networks and Other Domains - Session 5</p> <p>Chair: Dr. Mai Anh Tien (<i>Singapore Management University</i>)</p> <ol style="list-style-type: none"> 1. 13:30-14:15: <i>Linear Query Complexity Approximation Algorithms for Non-monotone Submodular Maximization under a Knapsack Constraint</i> - Canh V. Pham, Tan D. Tran 2. 13:45-14:00: <i>New Separation Procedure For Subtour Elimination Constraints</i> - Bui Quoc Trung, Pham Quang Dung, Francois Aubry 3. 14:00-14:15: <i>Competitive Facility Location under Generalized Customer Choice Models</i> - Thuy Anh Ta, Mai Anh Tien 4. 14:15-14:30: <i>Omega Ratio with Drawdown measures and Cardinality</i>

	<p><i>Constraints Portfolio Optimization</i> - Thu Hai Nguyen, Tien Thanh Mai, Bao Khanh Nguyen, Minh Hoàng Hà</p> <p>5. 14:30-14:45: <i>Optimization path of Economy-Society-Ecology system for Ninh Binh Province</i> - Pham Van Khanh, Le Thi Thuy Giang, Do Thi Loan</p>
14:45-15:00	Coffee break
15:00-16:00	<p>Theme 2: Operations Research and Applications in Business, Economics, Social Networks and Other Domains - Session 6</p> <p>Chair: Dr. Mai Anh Tien (Singapore Management University)</p> <ol style="list-style-type: none"> 1. 15:00-15:15: <i>Metaheuristic for a flight service scheduling problem in Viet Nam</i> - Nam-Khanh Tran, Tien-Dzung Vu, Trong-Hieu Nguyen, Duy-Phuong Pham, Binh-Minh Hoang, Thi-Hong Le, Dinh-Cong Nguyen, Duc-Minh Vu 2. 15:15-15:30: <i>Robust Solutions of Single-Leader-Multi-Follower Games and Applications</i> - Duong Thi Kim Huyen, Thai Doan Chuong 3. 15:30-15:45: <i>Probabilistic Focal Search - a Simple but Effective Focal Search Variant</i> - Minh Vu Duc, Hiep Hoang Nghia, Quoc Nguyen, Phuong Nguyen Khanh, Binh Huynh Thi Thanh, Duc D. Vu 4. 15:45-16:00: <i>The Application of the PPO Algorithm in Energy Storage Control for Businesses</i> - Pham Văn Khanh, Truong Thi Chi, Hoang Do Thanh Tung
Closing Ceremony and Photo Session	
<p>Banquet</p> <p>18:00 - 20:00</p>	