

**CỘNG HÒA XÃ HỘI CHỦ NGHĨA VIỆT NAM**  
**Độc lập - Tự do - Hạnh phúc**

**LÝ LỊCH KHOA HỌC**

(Dành cho thành viên các Hội đồng Giáo sư)



**1. Thông tin chung**

- Họ và tên: Huynh Thi Thanh Binh
- Năm sinh: 26/9/1975
- Giới tính: Nữ
- Trình độ đào tạo (TS, TSKH) (năm, nơi cấp bằng): TS/ 2011/ Đại học Bách khoa Hà Nội
- Chức danh Giáo sư hoặc Phó giáo sư (năm, nơi bổ nhiệm): PGS/ 2015/ Đại học Bách khoa Hà Nội

- Ngành, chuyên ngành khoa học: Khoa học máy tính
- Chức vụ và đơn vị công tác hiện tại: Phó Hiệu trưởng Trường CNTT&TT – Trường Đại học Bách khoa Hà Nội
- Chức vụ cao nhất đã qua: Phó Viện trưởng Viện CNTT&TT
- Thành viên Hội đồng Giáo sư cơ sở (nếu có) (năm tham gia, tên hội đồng, cơ sở đào tạo): 2019, 2020/ Hội đồng cơ sở ngành Công nghệ thông tin/ Đại học Bách khoa Hà Nội.
- Thành viên Hội đồng Giáo sư ngành (năm tham gia, tên hội đồng, nhiệm kỳ): chưa tham gia
- Thành viên Hội đồng Giáo sư nhà nước (năm tham gia, tên hội đồng, nhiệm kỳ): chưa tham gia

**2. Thành tích hoạt động đào tạo và nghiên cứu (thuộc chuyên ngành đang hoạt động)**

**2.1. Sách chuyên khảo, giáo trình**

- a) Tổng số sách đã chủ biên: 00 sách chuyên khảo; 00 giáo trình.
- b) Danh mục sách chuyên khảo, giáo trình trong 05 năm liền kề với thời điểm được bổ nhiệm thành viên Hội đồng gần đây nhất (tên tác giả, tên sách, nhà xuất bản, năm xuất bản, mã số ISBN, chỉ số trích dẫn): 00.

**2.2. Các bài báo khoa học được công bố trên các tạp chí khoa học**

- a) Tổng số đã công bố: 00 bài báo tạp chí trong nước; 35 bài báo tạp chí quốc tế.
- b) Danh mục bài báo khoa học công bố trong 05 năm liền kề với thời điểm được bổ nhiệm thành viên Hội đồng gần đây nhất (tên tác giả, tên công trình, tên tạp chí, năm công bố, chỉ số IF và chỉ số trích dẫn - nếu có):

**Công bố quốc tế trong 5 năm gần đây**

**Tạp chí Quốc tế**

1. **Huynh Thi Thanh Binh**, Le Van Cuong, Ta Bao Thang, Nguyen Hoang Long, "Ensemble Multifactorial Evolution with Biased Skill-Factor Inheritance for Many-task Optimization", Transactions on Evolutionary Computation, DOI: 10.1109/TEVC.2022.3227120.
2. Do Tuan Anh, **Huynh Thi Thanh Binh**, Nguyen Duc Thai, Pham Dinh Thanh, "A Particle Swarm Optimization and Variable Neighborhood Search based multipopulation algorithm for Inter-Domain Path Computation problem", Applied Soft Computing, 01/2023, 136, 110063, DOI: 10.1016/j.asoc.2023.110063.
3. La Van Quan, Nguyen Thi Hanh, **Huynh Thi Thanh Binh**, Vu Duc Toan, Dang The Ngoc, Bui Thu Lam, A bi-population Genetic algorithm based on multi-objective optimization for a



- relocation scheme with target coverage constraints in mobile wireless sensor networks, *Expert Systems With Applications*, Volume 217, 1 May 2023, 119486.
4. Nguyen Thi Hanh, **Huynh Thi Thanh Binh**, Vu Quang Truong, Nguyen Phuc Tan , Huynh Cong Phap, Node placement optimization under Q-Coverage and Q-Connectivity constraints in wireless sensor networks, *Journal of Network and Computer Applications*, Volume 212, March 2023, 103578.
  5. Do Bao Son, Ta Huu Binh, Hiep Khac Vo, Binh Minh Nguyen; Shui Yu, **Binh Huynh Thi Thanh**, Value-based Reinforcement Learning Approaches for Task Offloading in Delay Constrained Vehicular Edge Computing, *Engineering Applications of Artificial Intelligence*, accepted, (Q1, IF: 6.2).
  6. Nguyen Thi My Binh, **Huynh Thi Thanh Binh**, Nguyen Hong Ngoc, Nguyen Khanh Van, Shui Yu, A family system based evolutionary algorithm for obstacles-evasion minimal exposure path problem in Internet of Things, *Expert Systems with Applications (ESWA)*, accepted, (Q1, IF: 6.9).
  7. Ta Bao Thang, **Huynh Thi Thanh Binh**, A hybrid Multifactorial Evolutionary Algorithm and Firefly Algorithm for the Clustered Minimum Routing Cost Tree Problem, *Knowledge-Based Systems*, Vol. 241, 108225, 2022 (Q1, IF 8.0).
  8. Vu Quoc Hien, Tran Cong Dao, **Huynh Thi Thanh Binh**, A greedy search based evolutionary algorithm for electric vehicle routing problem, *Applied Intelligence*, accepted, (Q1, IF: 5.0).
  9. Nguyen Thi Tam, Vu Dinh Hoang, **Huynh Thi Thanh Binh**, Le Trong Vinh, Multi-objective teaching-learning evolutionary algorithm for enhancing sensor network coverage and lifetime, *Engineering Applications of Artificial Intelligence*, 2021, accepted, (Q1, IF: 6.2).
  10. Adit Goyal, Pranab Sharma, Vikas Hassija, Huynh Thi Thanh Binh , Vikas Saxena, Artificial Intelligence Assisted Blockchain-based Framework for Smart and Secure EMR Management, *Neural Computing and Applications*, 2021, accepted, (Q1, IF: 5.6).
  11. Tran Thi Huong, Le Van Cuong, Ngo Minh Hai, Nguyen Phi Le, Le Trong Vinh, **Huynh Thi Thanh Binh**, A bi-level optimized charging algorithm for energy depletion avoidance in wireless rechargeable sensor networks, *Applied Intelligence*, accepted, 2021 (Q1, IF: 5.08).
  12. Ta Bao Thang, Tran Cong Dao, Nguyen Hoang Long, **Huynh Thi Thanh Binh**, Parameter adaptation in multifactorial evolutionary algorithm for many-task optimization, *Memetic computing*, accepted (Q1, IF: 5.9).
  13. Nguyen Thi Tam, Vi Thanh Dat, Phan Ngoc Lan, **Binh Huynh Thi Thanh**, Le Trong Vinh, Ananthram Swami, Multifactorial evolutionary optimization to maximize lifetime of wireless sensor network, *Information Sciences* (Q1, IF: 6.79).
  14. Ta Bao Thang, Nguyen Binh Long, Ngo Viet Hoang, **Huynh Thi Thanh Binh** (2021), "Adaptive Knowledge Transfer in Multifactorial Evolutionary Algorithm for the Clustered Minimum Routing Cost Problem", *Applied Soft Computing* 107, 107253, (ISI, Q1, IF: 5.47).
  15. **Huynh Thi Thanh Binh**, Ta Bao Thang, Nguyen Duc Thai, Pham Dinh Thanh (2021), "A bi-level encoding scheme for the clustered shortest-path tree problem in multifactorial optimization", *Engineering Applications of Artificial Intelligence* 100, 104187, (ISI, Q1, IF: 4.2, trích dẫn: 2).
  16. Nguyen Thi Tam, Tran Huy Hung, **Huynh Thi Thanh Binh**, Le Trong Vinh (2021). "A decomposition-based multi-objective optimization approach for balancing the energy consumption of wireless sensor networks." *Applied Soft Computing* 107, 107365 (ISI, Q1, IF: 5.47).
  17. Keiichi Kaneko, Son Van Nguyen, Huynh Thi Thanh Binh, Pairwise Disjoint Paths Routing in Tori, *IEEE Access*, 8, 192206-192217, 2020 (ISI, Q1, IF: 3.745).
  18. Nguyen Thi Tam, **Huynh Thi Thanh Binh**, Vi Thanh Dat, Phan Ngoc Lan, Le Trong Vinh, Towards optimal wireless sensor network lifetime in three dimensional terrains using relay placement metaheuristics, *Knowledge Based Systems*, 206, 106407 (ISI, Q1, IF: 5.92, trích dẫn: 2).
  19. Phan Thi Hong Hanh, Pham Dinh Thanh, **Binh Huynh Thi Thanh**, Evolutionary Algorithm and Multifactorial Evolutionary Algorithm on Clustered Shortest-Path Tree problem, *Information Sciences*, 553, 280-304. (ISI, Q1, IF: 5.91, trích dẫn: 1).
  20. Bing Chen, Zhang Jiale, Chen Bing, Cheng Xiang, **Huynh Thi Thanh Binh**, Yu, Shui, PoisonGAN: Generative Poisoning Attacks against Federated Learning in Edge Computing



- Systems, IEEE Internet of Things Journal, vol. 8, no. 5, pp. 3310-3322 (ISI, Q1, IF: 9.93, trích dẫn: 3).
21. Pham Dinh Thanh, **Huynh Thi Thanh Binh**, Multifactorial Evolutionary Algorithm for Solving Clustered Tree Problems: Competition among Cayley Codes, Memetic computing, 2020, 12, pages 185–217. (ISI, Q1, IF: 3.86, trích dẫn: 4).
  22. **Huynh Thi Thanh Binh**, Pham Dinh Thanh, Two Levels Approach Based on Multifactorial Optimization to Solve the Clustered Shortest Path Tree Problem, Evolutionary Intelligence (2020), (ISI, Q3, IF: 0.94, trích dẫn: 1).
  23. **Huynh Thi Thanh Binh**, Pham Dinh Thanh, Tran Ba Trung, Le Cong Thanh, Le Minh Hai Phong, Ananthram Swami, Bui Thu Lam, A Multifactorial Optimization Paradigm for Linkage Tree Genetic Algorithm, Information Sciences, 540, 325-344. (ISI, Q1, IF: 5.91, trích dẫn: 2).
  24. Nguyen Thi My Binh, Abdelhamid Mellouk, Huynh Thi Binh, Le Vu Loi, Dang Lam San, Tran Hai Anh, An elite hybrid particle swarm optimization for solving minimal exposure path problem in mobile wireless sensor networks. Sensors, 20(9), 2586, doi:10.3390/s20092586. (ISI, Q1, IF: 3.275, trích dẫn: 1).
  25. Nguyen Thi Tam, **Huynh Thi Thanh Binh**, Dinh Anh Dung Tran Huy Hung, Shui Yu, Exploiting relay nodes for maximizing wireless underground sensor network lifetime, Applied Intelligence, 2020, 50 (12), 4568-4585. (ISI, Q2, IF: 3.325, trích dẫn: 1).
  26. Nguyen Thi My Binh, **Huynh Thi Thanh Binh**, Nguyen Van Linh, Shui Yu, Efficient Metaheuristic approaches in solving Minimal Exposure Path Problem for Heterogeneous Wireless Multimedia Sensor Networks in Internet of Things, Applied Intelligence, 2020, Volume 50, pp. 1889-1907. (ISI, Q2, IF: 3.325, trích dẫn: 1).
  27. **Huynh Thi Thanh Binh**, Nguyen Thi Hanh, La Van Quan, Nguyen Duc Nghia, Nilanjan Dey, Metaheuristics for Maximization of Obstacles Constrained Area Coverage in Heterogeneous Wireless Sensor Networks, Applied Soft Computing, Volume 86, January 2020, 105939. (ISI, Q1, IF: 5.472, trích dẫn: 14).
  28. Pham Dinh Thanh, **Huynh Thi Thanh Binh**, Tran Ba Trung, An Efficient Strategy for using Multifactorial Optimization to Solve the Clustered Shortest-Path Tree Problem, Applied Intelligence, Volume 50, pp. 1233-1258. (ISI, Q2, IF: 3.325, trích dẫn: 12).
  29. Nguyen Thi Tam, **Huynh Thi Thanh Binh**, Dinh Anh Dung, Phan Ngoc Lan, Le Trong Vinh, Bo Yuan, Xin Yao, A hybrid clustering and evolutionary approach for wireless underground sensor network lifetime maximization, Information Sciences, Volume 504, December 2019, pp. 372–393. (ISI, Q1, IF 5.91, trích dẫn: 9).
  30. Phi Le Nguyen, Nguyen Thi Hanh, Nguyen Tien Khuong, **Huynh Thi Thanh Binh**, Yusheng Ji, Node Placement for Connected Target Coverage in Wireless Sensor Networks with Dynamic Sinks, Pervasive and Mobile Computing, Volume 59, October 2019, 101070. (ISI, Q1, IF 2.725, trích dẫn: 4).
  31. **Huynh Thi Thanh Binh**, Pham Dinh Thanh, Ta Bao Thang, New Approach to Solving The Clustered Shortest-Path Tree Problem Based on Reducing The Search Space of Evolutionary Algorithm, Knowledge-Based Systems, Volume 180, September 2019, pp. 12-25. (ISI, Q1, IF: 5.921, trích dẫn: 19).
  32. Nguyen Thi Hanh, **Huynh Thi Thanh Binh**, Nguyen Xuan Hoai, Marimuthu Swami Palaniswami, An Efficient Genetic Algorithm for Maximizing Area Coverage in Wireless Sensor Networks, Information Sciences, Volume 488, July 2019, Pages 58-75. (ISI, Q1, IF: 5.91, trích dẫn: 31).
  33. Nguyen Binh Minh, **Huynh Thi Thanh Binh**, Tran The Anh, Do Bao Son, Evolutionary Algorithms to Optimize Task Scheduling Problem for the IoT Based Bag-of-Tasks Application in Cloud-Fog Computing Environment, Applied Sciences, Volume 9, Issue 9, 1730. (Scopus, Q2, IF: 2.474, trích dẫn: 34).
  34. **Huynh Thi Thanh Binh**, Nguyen Thi My Binh, Nguyen Hong Ngoc, Dinh Thi Ha Ly, Nguyen Duc Nghia, Efficient Approximation Approaches to Minimal Exposure Path Problem in Probabilistic Coverage Model for Wireless Sensor Networks, Applied Soft Computing, Volume 76, March 2019, pp. 726-743. (ISI, Q1, IF: 5.472, trích dẫn: 8).
  35. **Huynh Thi Thanh Binh**, Nguyen Thi Hanh, La Van Quan, Nilanjan Dey, Improved Cuckoo Search and Chaotic Flower Pollination Algorithms for Maximizing Area Coverage in Wireless



### Hội thảo quốc tế

1. Tran Hai Long, Doan Cao Thanh Long, Luong Ngoc Hoang, **Huynh Thi Thanh Binh**, "A Two-Stage Multi-Objective Evolutionary Reinforcement Learning Framework for Continuous Robot Control", The 2023 Genetic and Evolutionary Computation Conference (GECCO), accepted as Full paper.
2. Tran Cong Dao, Do Tuan Anh, **Huynh Thi Thanh Binh**, Ban Ha Bang, Do Duc Anh, Nguyen Phan Bach Su, "MNDE: Node-depth encoding can do better in evolutionary multitask algorithms", The 2023 Genetic and Evolutionary Computation Conference (GECCO), accepted as Poster paper.
3. Tran Ba Trung, Lijun Chang, Nguyen Tien Long, Kai Yao, **Huynh Thi Thanh Binh**, Verification-Free Approaches to Efficient Locally Densest Subgraph Discovery, 39th IEEE International Conference on Data Engineering, accepted (rank A\*).
4. Long, Doan, Hieu Le, Huy Dang, Long Tran, Dao Long, Hai Minh Nguyen, Hanh Pham, Nam Nguyen, Ngoc Hoang Luong, **Huynh Thi Thanh Binh**. "TF-GeneNAS: An evolution-based training-free approach to Neural Architecture Search". International Joint Conference on Neural Networks - IJCNN, accepted, 2022.
5. D. T. Anh, **H. Thi Thanh Binh**, N. H. Long and T. V. Diep. A Genetic Ant Colony Optimization Algorithm for Inter-domain Path Computation problem under the Domain Uniqueness constraint. In: 2022 IEEE Congress on Evolutionary Computation (CEC), accepted, 2022.
6. Nguyen Duc Anh, Tran Thi Huong, Nguyen Thanh Tung, **Huynh Thi Thanh Binh**, Frederica Free Nelson, Le Trong Vinh, "Bi-level optimization for charging path and charging time in wireless rechargeable sensor networks", In Artificial Intelligence and Machine Learning for Multi-Domain Operations Applications IV, SPIE 2022.
7. Nguyen Hong Ngoc, Alvin Chan, **Huynh Thi Thanh Binh**, Yew Soon Ong, Anti-Forensic Deepfake Personas and How To Spot Them, 2022 IEEE World Congress on Computational Intelligence, accepted.
8. Le Van Cuong, Nguyen Ngoc Bao, Nguyen Khanh Phuong, **Huynh Thi Thanh Binh**, Dynamic Perturbation for Population Diversity Management in Differential Evolution, Genetic and Evolutionary Computation Conference (GECCO-2022), accepted (rank A).
9. Nguyen Thieu, Nguyen Thang, Vu Quoc Hien, **Huynh Thi Thanh Binh**, Nguyen Binh Minh, Multi-objective Sparrow Search Optimization for Task Scheduling in Fog-Cloud-Blockchain Systems, International Conference on Services Computing (IEEE SCC 2021). (rank A).
10. Tuan Anh Do, **Huynh Thi Thanh Binh**, Hoang Long Nguyen, Bao Thang Ta and Simon Su, A Two-level Genetic Algorithm for Inter-domain Path Computation under Node-defined Domain Uniqueness Constraints, in 2021 IEEE Congress on Evolutionary Computation (CEC), accepted.
11. Tien Thanh Le, Van Cuong Le, Bao Thang Ta and **Huynh Thi Thanh Binh**, Multi-Armed Bandits for Many-task Evolutionary Optimization, in 2021 IEEE Congress on Evolutionary Computation (CEC), accepted.
12. Tran Cong Dao, Tran Huy Hung, Nguyen Thi Tam, **Huynh Thi Thanh Binh** (2021), A multifactorial evolutionary algorithm for minimum energy cost data aggregation tree in wireless sensor networks, Congress on Evolutionary Computation (CEC), accepted.
13. Tran Thi Huong, Le Van Cuong, Nguyen Bao Ngoc, Ngo Minh Hai, **Huynh Thi Thanh Binh**, "Effective partial charging scheme for minimizing the energy depletion and charging cost in wireless rechargeable sensor networks", in 2021 Congress on Evolutionary Computation (CEC), accepted.
14. Le Van Cuong, Tran Thi Huong, **Huynh Thi Thanh Binh**, "A multi-task approach for maximum survival ratio problem in large-scale wireless rechargeable sensor networks", in 2021 Congress on Evolutionary Computation (CEC), accepted.
15. Do Bao Son, Vu Tri An, Trinh Thu Hai, Binh Minh Nguyen, Nguyen Phi Le, **Huynh Thi Thanh Binh**, "Fuzzy Deep Q-learning Task Offloading in Delay Constrained Vehicular Fog



- Computing", 2021 International Joint Conference on Neural Networks (IJCNN), Shenzhen, China, 2021, accepted.
16. Tuan Anh Do, **Huynh Thi Thanh Binh**, Hoang Long Nguyen, Bao Thang Ta and Simon Su, A two-level strategy based on evolutionary algorithm to solve the Inter-domain path computation under node-defined domain uniqueness constraint, in 2021 Artificial Intelligence and Machine Learning for Multi-Domain Operations Applications III, USA, 2021, vol 11746, 1174620.
  17. Nguyen Thi Hanh, **Huynh Thi Thanh Binh** and Nguyen Van Son, Minimal Relay Node Placement for Ensuring Network Connectivity in Mobile Wireless Sensor Networks, The 19th IEEE International Symposium on Network Computing and Applications (NCA 2020), pp. 1-8.
  18. Van An Le, Tien Thanh Le, Phi Le Nguyen, **Huynh Thi Thanh Binh**, Yusheng Ji, Multi-time-step Segment Routing based Traffic Engineering Leveraging Traffic Prediction, IFIP/IEEE International Symposium on Integrated Network Management, 2021, accepted.
  19. Van An Le, Tien Thanh Le, Phi Le Nguyen, **Huynh Thi Thanh Binh**, Rajendra Akerkar, Yusheng Ji, GCRINT: Network Traffic Imputation Using Graph Convolutional Recurrent Neural Network, IEEE International Conference on Communications, 2021, accepted.
  20. Tran Thi Huong, Nguyen Phi Le, **Huynh Thi Thanh Binh**, Le Trong Vinh, Nguyen Kien, Ngo Minh Hai, Genetic Algorithm-based Periodic Charging Scheme for Energy Depletion Avoidance in WRSNs, IEEE Wireless Communications and Networking Conference (WCNC), 2020, pp. 1-6. (trích dẫn: 2).
  21. Bao Son Do, Thu Hai Trinh, Quang Minh Ngo, **Huynh Thi Thanh Binh**, Phi Le Nguyen and Binh Minh Nguyen, A Reinforcement Learning Algorithm for Resource Provisioning in Mobile Edge Computing Network, The International Joint Conference on Neural Networks (IJCNN), 2020, pp. 1-7.
  22. **Huynh Thi Thanh Binh**, Thang Ta Bao, Long Nguyen Binh, Hoang Ngo Viet and Thanh Pham Dinh, Multifactorial Evolutionary Algorithm for Inter-Domain Path Computation under Domain Uniqueness Constraint, The IEEE Congress on Evolutionary Computation (IEEE CEC), 2020, pp. 1-8 (trích dẫn: 4).
  23. Huong Tran, **Huynh Thi Thanh Binh**, Phi Le Nguyen, Cao Thanh Long Doan, Dinh An Vuong and Trong Vinh Le, Optimizing Charging Locations and Charging Time for Energy Depletion Avoidance in WRSNs, The IEEE Congress on Evolutionary Computation (IEEE CEC), 2020, pp. 1-8.
  24. Nguyen Thi Tam, Tran Quang Tuan, **Huynh Thi Thanh Binh**, Swami Ananthram, Multifactorial evolutionary optimization for maximizing data aggregation tree lifetime in wireless sensor networks, Proc. SPIE 11413, Artificial Intelligence and Machine Learning for Multi-Domain Operations Applications II, 114130Z (23 April 2020); doi: 10.1117/12.2557978.
  25. Tran Viet Toan, Rin Nishikawa, Le Tien Thanh, Masashi Takemoto, Tran Van Hoai, **Binh Huynh Thi Thanh**, Hironori Nakajo, Cow estrus detection with low-frequency accelerometer sensor by unsupervised learning, The 10th International Symposium on Information and Communication Technology (SoICT 2019), Vietnam, pp. 342-349.
  26. Tran Ba Trung, Le Tien Thanh, Ly Trung Hieu, Pham Dinh Thanh, **Binh Huynh Thi Thanh**, Multifactorial Evolutionary Algorithm For Clustered Minimum Routing Cost Problem, The 10th International Symposium on Information and Communication Technology (SoICT 2019), Vietnam, pp. 170-177.
  27. Thanh Pham Dinh, **Binh Huynh Thi Thanh**, Dac Do Dinh, Long Nguyen Binh and Phong Le Minh Hai, A Heuristic Based on Randomized Greedy Algorithms for the Clustered Shortest-Path Tree Problem, World Congress on Computational Intelligence 2019, New Zealand, pp. 2915-2922.
  28. **Binh Huynh Thi Thanh**, Tuan Nguyen Quoc and Long Doan Cao Thanh, A multi-objective multi-factorial evolutionary algorithm with reference-point-based approach, World Congress on Computational Intelligence 2019, New Zealand, pp. 2824-2831.
  29. Hanh Nguyen Thi, **Binh Huynh Thi Thanh**, Son Nguyen Van and Lan Phan Ngoc, Minimal Node Placement for Ensuring Target Coverage With Network Connectivity and Fault Tolerance Constraints in Wireless Sensor Networks, World Congress on Computational Intelligence 2019, New Zealand, pp. 2923-2930.



30. Tam, Nguyen Thi, **Huynh Thi Thanh Binh**, Tran Huy Hung, and Dinh Anh Dung, Prolong the Network Lifetime of Wireless Underground Sensor Networks by Optimal Relay Node Placement, In International Conference on the Applications of Evolutionary Computation (Part of EvoStar), EvoApplications 2019: Applications of Evolutionary Computation, Germany, pp. 439-453.
31. Nguyen Cong Luong, Tran The Anh, **Huynh Thi Thanh Binh**, Dusit Niyato, Dong In Kim, Ying-Chang Liang, Joint Transaction Transmission and Channel Selection in Cognitive Radio Based Blockchain Networks: A Deep Reinforcement Learning Approach, 2019 IEEE International Conference on Acoustics, Speech and Signal Processing (ICASSP), UK, pp. 8409-8413.
32. **Huynh Thi Thanh Binh**, Nguyen Thi My Binh, An efficient approximate algorithm for achieving  $(k-\omega)$  barrier coverage in camera wireless sensor networks, 2019 Artificial Intelligence and Machine Learning for Multi-Domain Operations Applications, Maryland, United States, pp. 1100613.
33. Tien Thanh Le, Rin Nishikawa, Masashi Takemoto, **Thi Thanh Binh Huynh** and Hironori Nakajo, Cow estrus detection via Discrete Wavelet Transformation and Unsupervised Clustering, The Ninth International Symposium on Information and Communication Technology (SolCT 2018), Vietnam, pp. 305-312.
34. Thao Nguyen Van, Nugroho Fredivianus, Huu Tam Tran, Kurt Geihs, **Thi Thanh Binh Huynh**, Formal Verification of ALICA Multi-agent Plans Using Model Checking. The Ninth International Symposium on Information and Communication Technology (SolCT 2018), Vietnam, pp. 351-358. (
35. Huu Tam Tran, Alexander Jahl, Kurt Geihs, Ramaprasad Kuppili, Xuan Thang Nguyen, **Thi Thanh Binh Huynh**, DECOM: A framework to support evolution of IoT services, The Ninth International Symposium on Information and Communication Technology (SolCT 2018), Vietnam, pp. 389-396.
36. **Huynh Thi Thanh Binh**, Tran The Anh, Do Bao Son, Pham Anh Duc, Binh Minh Nguyen, An Evolutionary Algorithm for Solving Task Scheduling Problem in Cloud-Fog Computing Environment, The Ninth International Symposium on Information and Communication Technology (SolCT 2018), Vietnam, pp. 397-404.
37. Dinh Thanh Pham, Anh Dung Dinh, Ngoc Tien Tran, Ba Trung Tran and **Thi Thanh Binh Huynh**, An effective representation scheme in Multifactorial Evolutionary Algorithm for solving Cluster Shortest-Path Tree Problem, World Congress on Computational Intelligence 2018, Brazil, pp. 1-8.
38. Tuan Nguyen Quoc, Hoang Ta Duy, Khoa Tong Huu Dang, Hanh Phan Thi Hong, **Binh Huynh Thi Thanh** and Thanh Pham Dinh, A Guided Differential Evolutionary Multi-tasking with Powell search method for solving Multi-objective Continuous Optimization, World Congress on Computational Intelligence 2018, Brazil, pp. 1-8.
39. Dinh Thanh Pham, Ba Trung Tran, Phuong Thao Le and **Thi Thanh Binh Huynh**, Effective Multifactorial Evolutionary Algorithm for Solving the Cluster Shortest Path Tree Problem, World Congress on Computational Intelligence 2018, Brazil, pp. 1-8.

### **2.3. Các nhiệm vụ khoa học và công nghệ (chương trình và đề tài tương đương cấp Bộ trở lên)**

a) Tổng số chương trình, đề tài đã chủ trì/chủ nhiệm: 00 cấp Nhà nước; 03 cấp Bộ và tương đương.

b) Danh mục đề tài tham gia đã được nghiệm thu trong 05 năm liền kề với thời điểm được bổ nhiệm thành viên Hội đồng gần đây nhất (*tên đề tài, mã số, thời gian thực hiện, cấp quản lý đề tài, trách nhiệm tham gia trong đề tài*):

Kéo dài thời gian hoạt động của mạng Internet vạn vật sử dụng các thuật toán lấy cảm hứng từ tự nhiên, 102.01-2019.304, Quỹ phát triển khoa học Công nghệ Quốc gia, Chủ nhiệm đề tài.

Phát triển các kỹ thuật meta-heuristic giải các bài toán tối ưu trong các hệ thống phân tán và hệ thống phần mềm, DFG 102.01-2016.03, 2017-2019, Quỹ phát triển khoa học Công nghệ Quốc gia, Chủ nhiệm đề tài.



Định tuyến mạng và tiếp cận phi-vị-kỹ nhằm tối ưu hóa hiệu năng tổng thể, 2018-2021, Mã số 102.02-2017.316, Quỹ phát triển khoa học Công nghệ Quốc gia, Thành viên nghiên cứu chủ chốt.

#### 2.4. Công trình khoa học khác

a) Tổng số công trình khoa học khác:

- Tổng số có: 00 sáng chế, giải pháp hữu ích
- Tổng số có: 00 tác phẩm nghệ thuật
- Tổng số có: 00 thành tích huấn luyện, thi đấu

b) Danh mục bằng độc quyền sáng chế, giải pháp hữu ích, tác phẩm nghệ thuật, thành tích huấn luyện, thi đấu trong 5 năm trở lại đây (*tên tác giả, tên công trình, số hiệu văn bằng, tên cơ quan cấp*): 00

#### 2.5. Hướng dẫn nghiên cứu sinh (NCS) đã có quyết định cấp bằng tiến sĩ

a) Tổng số: 04 NCS đã hướng dẫn chính

b) Danh sách NCS hướng dẫn thành công trong 05 năm liền kề với thời điểm được bổ nhiệm thành viên Hội đồng gần đây nhất (*Họ và tên NCS, đề tài luận án, cơ sở đào tạo, năm bảo vệ thành công, vai trò hướng dẫn*):

Nguyễn Thị Hạnh, Một số thuật toán metaheuristic giải bài toán bao phủ diện tích và đối tượng trong mạng cảm biến không dây Đại học Bách khoa Hà Nội, 2020, Hướng dẫn chính.

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Phạm Đình Thành, Nghiên cứu phát triển một số thuật toán tiến hóa giải bài toán cây khung phân cụm nhỏ nhất, Học viện kỹ thuật quân sự, 2021, Hướng dẫn chính.

Nguyễn Thị Tâm, Tối ưu hóa thời gian sống của một lớp mạng cảm biến không dây theo hướng tiếp cận xấp xỉ, 2021, Hướng dẫn chính.

### 3. Các thông tin khác

**3.1. Danh mục các công trình khoa học chính trong cả quá trình** (Bài báo khoa học, sách chuyên khảo, giáo trình, sáng chế, giải pháp hữu ích, tác phẩm nghệ thuật, thành tích huấn luyện, thi đấu...; khi liệt kê công trình, có thể thêm chú dẫn về phân loại tạp chí, thông tin trích dẫn...):

#### Tạp chí Quốc tế:

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2. Do Tuan Anh, **Huỳnh Thi Thanh Bình**, Nguyen Duc Thai, Pham Dinh Thanh, "A Particle Swarm Optimization and Variable Neighborhood Search based multipopulation algorithm for Inter-Domain Path Computation problem", Applied Soft Computing, 01/2023, 136, 110063, DOI: 10.1016/j.asoc.2023.110063.
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### **3.2. Giải thưởng về nghiên cứu khoa học trong và ngoài nước:**

- Giải Nhất tại cuộc thi Tiến hóa đa nhiệm, Tối ưu đa nhiệm đơn mục tiêu, Hội nghị Tính toán tiến hóa của Hiệp hội kỹ thuật Điện Điện tử năm 2021 (First prize, Competition on Evolutionary Multi-task Optimization, Multi-task Single-objective Optimization (MTSOO), 2021 IEEE World Congress on Computational Intelligence (WCCI 2022)).

- Giải Nhất tại cuộc thi Tiến hóa đa nhiệm, Tối ưu đa nhiệm đơn mục tiêu, Hội nghị Tính toán tiến hóa của Hiệp hội kỹ thuật Điện Điện tử năm 2021 (First prize, Competition on Evolutionary Multi-task Optimization, Multi-task Single-objective Optimization (MTSOO), 2021 IEEE Congress on Evolutionary Computation (CEC 2021)).



- Giải thưởng giảng viên có công trình công bố có ảnh hưởng của Trường Đại học Bách khoa Hà Nội, 2021.

- Giải Nhì tại cuộc thi Tiến hóa đa nhiệm, Tối ưu đa nhiệm đơn mục tiêu, Hội nghị Trí tuệ tính toán toàn cầu của Hiệp hội kỹ thuật Điện Điện tử năm 2020 (Runner-up prize, Competition on Evolutionary Multi-task Optimization, Multi-task Single-objective Optimization (MTSOO), 2020 IEEE World Congress on Computational Intelligence (WCCI 2020)).

- Giải Ba tại cuộc thi Định tuyến cho xe điện, Hội nghị Trí tuệ tính toán toàn cầu của Hiệp hội kỹ thuật Điện Điện tử năm 2020 (Third prize, Competition on Electric Vehicle Routing Problem, 2020 IEEE World Congress on Computational Intelligence (WCCI 2020)).

- Giải nhất trong cuộc thi Tối ưu tiến hóa đa nhiệm, Tối ưu đơn mục tiêu đa nhiệm tại Hội nghị toàn cầu của IEEE về Trí tuệ tính toán (First prize: The 2018 IEEE World Congress on Computational Intelligence (WCCI 2018) Competition on Evolutionary Multi-task Optimization, Multi-task single-objective optimization).

- Giải thưởng bài báo tốt nhất tại Hội nghị quốc tế về Công nghệ thông tin Truyền thông SoICT 2019.

Giải thưởng bài báo tốt nhất tại Hội thảo IEEE Humanitarian Technology Conference 2015.

**3.3. Các thông tin về chỉ số định danh ORCID, hồ sơ Google scholar, H-index, số lượt trích dẫn:**

ORCID: <https://orcid.org/0000-0003-1976-6113>

Google scholar: <https://scholar.google.com/citations?user=vJYe5IkAAAAJ&hl=en>

h-index: 20

Số lượt trích dẫn: 1645

**3.4. Ngoại ngữ**

- Ngoại ngữ thành thạo phục vụ công tác chuyên môn: tiếng Anh, tiếng Nhật

- Mức độ giao tiếp bằng tiếng Anh: tốt

*Tôi xin cam đoan những điều khai trên là đúng sự thật, nếu sai tôi xin hoàn toàn chịu trách nhiệm trước pháp luật.*

Hà Nội, ngày 4 tháng 5 năm 2023

**NGƯỜI KHAI**



Huỳnh Thị Thanh Bình