

Journal Papers

1. Sameer Alam, Supatcha Chaimatanan, Daniel Delahaye, and Eric Feron, "Metaheuristic Approach for Distributed Trajectory Planning for European Functional Airspace Blocks", *Journal of Air Transportation* 26, no. 3 (2018): 81-93. ([Abstract](#))
2. Hung Pham and Quang-Cuong Pham, "Robotic Manipulation of a Rotating Chain", *IEEE Transactions on Robotics*, Vol. 34, No.1, February 2018. ([Abstract](#))
3. T. K. Venugopalan, Cheryl Sze Yin Wong, S. Suresh and N. Sundararajan, "Simultaneous Optimization of Airway and Sector Design for Air Traffic Management", *Journal of Air Transportation*, Volume 26, Number 1, March 2018. ([Abstract](#))
4. Hung Pham and Quang-Cuong Pham, "A new approach on Time-Optimal Path Parameterization based on Reachability Analysis", *IEEE Transactions on Robotics*, Vol. 34, No.3, 645 - 659, 16 April 2018. ([Abstract](#))
5. Shanker Shreejith, Libin K. Mathew, Vinod A. Prasad and Suhaib A. Fahmy, "Efficient Spectrum Sensing for Aeronautical LDACS Using Low-Power Correlators", *IEEE Transactions on Very Large Scale Integration (VLSI) Systems*, vol.26, no.6, pp.1183-1191, June 2018. ([Abstract](#))
6. R Prakash, R Piplani and J Desai, "An optimal data-splitting algorithm for aircraft scheduling on a single runway to maximize throughput", *Transportation Research Part C: Emerging Technologies*, Volume 95, October 2018, Pages 570-581. ([Abstract](#))
7. Hong Jie Wee, Sun Woh Lye and Jean-Philippe Pinheiro, "A Spatial, Temporal Complexity Metric for Tactical Control", *Journal of Navigation*, 71(5), 1040-1054, 2018. ([Abstract](#))
8. Md Ahmed, Sameer Alam, and Michael Barlow, "A cooperative co-evolutionary optimisation model for best-fit aircraft sequence and feasible runway configuration in a multi-runway airport", *Aerospace* 5, no. 3 (2018): 85. ([Abstract](#))
9. Qing Cai, Mahardhika Pratama, Sameer Alam, Chunyao Ma and Jiming Liu, "Breakup of Directed Multipartite Networks", *IEEE Transactions on Network Science and Engineering* (21 January 2019). ([Abstract](#))
10. Qing Cai, Sameer Alam, and Jiming Liu, "On the Robustness of Complex Systems with Multipartitivity Structures under Node Attacks", *IEEE Transactions on Control of Network Systems* (2019). ([Abstract](#))
11. Chunyao Ma, Qing Cai, Sameer Alam, Banavar Sridhar, and Vu N. Duong, "Airway network management using Braess's Paradox", *Transportation Research Part C: Emerging Technologies* 105 (2019): 565-579. ([Abstract](#))
12. Md Murad Hossain, Sameer Alam and Daniel Delahaye, "An evolutionary computational framework for capacity-safety trade-off in an air transportation network", *Chinese Journal of Aeronautics* 32, no. 4 (April 2019): 999-1010. ([Abstract](#))
13. Gammana Guruge Nadeesha Sandamali, Rong Su and Yicheng Zhang, "Flight Routing and Scheduling Under Departure and En-route Speed Uncertainty", *IEEE Transactions on Intelligent Transportation Systems*, April 2019, 1 – 14. ([Abstract](#))
14. Rakesh Prakash, Sameer Alam, and Vu N. Duong, "A mixed integer programming model for optimal ATC tower height and location: a case study for Singapore Changi Airport's third runway extension", *Engineering Optimization* (2019): 1-26. ([Abstract](#))

15. Cheryl Sze Yin Wong, Suresh Sundaram and Narasimhan Sundararajan, "A Cognitive Decision-Making Architecture for Dynamic Airspace Sectorization for Efficient Operations", IEEE Transactions on Intelligent Transportation Systems, Volume: 20, Issue: 5, May 2019, 1659 – 1668. ([Abstract](#))
16. HY Lai, CH Chen, LP Khoo and P Zheng, "Unstable approach in aviation: mental model disconnects between pilots and air traffic controllers and interaction conflicts", Reliability Engineering & System Safety, Elsevier, Volume. 185(C), pages 383-391. ([Abstract](#))
17. C.S.Y. Wong, Abdullah Al-Dujaili, S. Suresh, N. Sundararajan, "Pareto-aware strategies for faster convergence in multi-objective multi-scale search optimization", Information Sciences, Elsevier, Volumes 454–455, July 2018, Pages 1-15. ([Abstract](#))
18. Hong Jie Wee, Sun Woh Lye and Jean-Philippe Pinheiro, "An Integrated Highly Synchronous, High Resolution, Real Time Eye Tracking System for Dynamic Flight Movement", Advanced Engineering Informatics, Volume 41, August 2019, 100919. ([Abstract](#))
19. Hsueh-Yi Lai, Chun-Hsien Chen, Pai Zheng and Li Pheng Khoo, "Towards better information transparency in the air traffic landing system: a novel agent-based model with implicit interactions", Reliability Engineering & System Safety, Volume 191, November 2019, 106569. ([Abstract](#))
20. Collision Risk Management for Non-Cooperative UAS Traffic in Airport-Restricted Airspace with Alert Zones based on Probabilistic Conflict Map", Transportation Research Part C (Accepted)
21. Hui Xie, Alan F. Lynch, Kin Huat Low and Shixin Mao, "Adaptive Output-Feedback Image-Based Visual Servoing for Quadrotor Unmanned Aerial Vehicles", IEEE Transactions on Control Systems Technology, (Early Access), 2019. ([Abstract](#))

Conference Papers

1. Mohammed Faisal Bin Mohammed Salleh, Wanchao Chi, Zhenkun Wang, Shuangyao Huang, Da Yang Tan, Tingting Huang and Kin Huat Low, "Preliminary Concept of Adaptive Urban Airspace Management for Unmanned Aircraft Operations", American Institute of Aeronautics and Astronautics (AIAA) SciTech, 8 - 12 January 2018. <https://doi.org/10.2514/6.2018-2260>
2. Hung Pham and Quang-Cuong Pham, "Time-Optimal Path Tracking via Reachability Analysis", 2018 IEEE International Conference on Robotics and Automation (ICRA), 21-25 May 2018. <https://arxiv.org/pdf/1709.05101.pdf>
3. Puttichai Lertkultanon, Jingyi Yang, Hung Pham, Quang-Cuong Pham, ""Departure and Conflict Management in Multi-Robot Path Coordination"", 2018 IEEE International Conference on Robotics and Automation (ICRA), 21-25 May 2018. <https://doi.org/10.1109/icra.2018.8460587>
4. Myleen Dosado Villaluz, Lu Gan, Jason Sia, S. K. Tan, Simon Foo and Kin Huat Low, "Preliminary 4.5G Cellular Network Assessment with Calibrated Standard Propagation Model (SPM) for uTM-UAS Operations in Singapore Airspace", 2018 International

Conference on Unmanned Aircraft Systems (ICUAS), 12 - 15 June 2018.

<https://doi.org/10.1109/ICUAS.2018.8453326>

5. Duc-Thinh Pham, Sameer Alam, Su Yi-Lin, and Vu Duong, "A machine learning approach on Past ADS-B Data to Predict Planning Controller's Actions", 8th International Conference on Research in Air Transportation (ICRAT '18). 24 June 2018.
http://www.icrat.org/ICRAT/seminarContent/2018/presentations/ICRAT_2018_Presentation_102.pdf
6. Shohel Ahmed, Sameer Alam and Dr. Michael Barlow, "A Multi-Layer Artificial Neural Network Approach for Runway Configuration Prediction", 8th International Conference on Research in Air Transportation (ICRAT '18). 26 - 29 June 2018.
http://www.icrat.org/ICRAT/seminarContent/2018/presentations/ICRAT_2018_Presentation_43.pdf
7. Hsueh-Yi Lai, Chun-Hsien Chen and Li-Pheng Khoo, "Unstable Approach in Aviation: Examine Air Traffic Controllers' Involvement from Situation Awareness and Shared-Situation Awareness", Conference: 25th ISPE Inc. International Conference on Transdisciplinary Engineering, 1145 - 1154, 3 - 6 July 2018. <https://doi.org/10.3233/978-1-61499-898-3-1145>
8. S. Paramasivam, C.L. Poh & J.U. Schluter, "Study of Multiple Wake Vortex System Behind Aircraft Near Ground Proximity using Prandtl-Lifting Line Theory", 10th International Conference on Computational Fluid Dynamics (ICCFD10), 9 - 13 July 2018.
<https://www.iccfd.org/iccfd10/papers/ICCFD10-269-Paper.pdf>
9. Cheryl Wong and Sundaram Suresh, "Preference-based 3-Dimensional En-route Airspace Sectorization", The Genetic and Evolutionary Computation Conference, 769-776, 15 -19 July 2018. <https://doi.org/10.1145/3205455.3205565>
10. Sim Kuan Goh, Ngoc Phu Tran, Duc-Thinh Pham, Chunyao Ma, Sameer Alam and Vu Duong, "Learning Air Traffic Controller Strategies with Real-Time Neural and Physiological Feedback", SESAR Innovation Days (2018) 28-29, 3 - 7 December 2018.
<https://www.sesarju.eu/sites/default/files/documents/sid/2018/posters/SESAR%20Innovation%20Days%202018%20Posters.pdf>
11. Duc-Thinh Pham, Ngoc Phu Tran, Sim Kuan Goh, Sameer Alam, and Vu Duong, "Reinforcement Learning for Two-Aircraft Conflict Resolution in the Presence of Uncertainty", 2019 IEEE-RIVF International Conference on Computing and Communication Technologies (RIVF), pp. 1-6. Institute of Electrical and Electronics Engineers (IEEE), 20 - 22 March 2019. <https://doi.org/10.1109/RIVF.2019.8713624>
12. Ngoc Phu Tran, Duc-Thinh Pham, Sim Kuan Goh, Sameer Alam, and Vu Duong, "An Intelligent Interactive Conflict Solver Incorporating Air Traffic Controllers' Preferences Using Reinforcement Learning", 2019 Integrated Communications, Navigation and Surveillance Conference (ICNS), pp. 1-8. Institute of Electrical and Electronics Engineers (IEEE), 9 - 11 April 2019. <https://doi.org/10.1109/ICNSURV.2019.8735168>
13. Van-Phat Thai, Weixian Zhong, Duc-Thinh Pham, Sameer Alam, and Vu Duong, "Detection, Tracking and Classification of Aircraft and Drones in Digital Towers Using Machine Learning on Motion Patterns", 2019 Integrated Communications, Navigation and Surveillance Conference (ICNS), pp. 1-8. IEEE, 9 - 11 April 2019.
<https://doi.org/10.1109/ICNSURV.2019.8735240>

14. Duc-Thinh Pham, Minh-Man Ngo, Ngoc Phu Tran, Sameer Alam, and Vu Duong, "Conflict Prediction Using Generative Model from ADS-B Data", 2019 Integrated Communications, Navigation and Surveillance Conference (ICNS), pp. 1-9. IEEE, 9 -11 April 2019. <https://doi.org/10.1109/ICNSURV.2019.8735372>
15. Qingyu Tan, Zhenkun Wang, Yew-Soon Ong and Kin Huat Low, "Evolutionary Optimization-based Mission Planning for UAS Traffic Management (UTM)", ICUAS, 11 - 14 June 2019. <https://doi.org/10.1109/ICUAS.2019.8798078>
16. Lim Catrina, Boyang Li, Ee Meng Ng, Xin Liu and Low Kin Huat, "Three-Dimensional (3D) Dynamic Obstacle Perception in a Detect-And-Avoid Framework for Unmanned Aerial Vehicles", ICUAS, 11 - 14 June 2019. <https://doi.org/10.1109/ICUAS.2019.8797844>
17. Chung Hung J. Wang, Shi Kun Tan and Kin Huat Low, "Collision Risk Assessment between UAS and Landing Aircraft in Restricted Airspace Surrounding and Airport using 3D Monte-Carlo Simulation", American Institute of Aeronautics and Astronautics (AIAA) Aviation 2019 Forum, 17 - 21 June 2019. <https://doi.org/10.2514/6.2019-3185>
18. Duc-Thinh Pham, Ngoc Phu Tran, Sameer Alam, Vu Duong, and Daniel Delahaye, "A Machine Learning Approach for Conflict Resolution in Dense Traffic Scenarios with Uncertainties", 13th USA/Europe Air Traffic Management Research and Development Seminar (ATM2019), 17-21 June 2019. Online proceedings at <http://www.atmseminar.org>.
19. Hasnain Ali, Yash Guleria, Sameer Alam, Vu N. Duong, and Michael Schultz, "Impact of Stochastic Delays, Turnaround Time and Connection Time on Missed Connections at Low Cost Airports", 13th USA/Europe Air Traffic Management Research and Development Seminar (ATM2019), 17-21 June 2019. Online proceedings at <http://www.atmseminar.org>.
20. Cai, Q., Ma, C., Alam, S., Duong, V. N., & Sridhar, B., ""Airway Network Flow Management using Braess's Paradox"", 13th USA/Europe Air Traffic Management Research and Development Seminar (ATM2019), 17-21 June 2019. Online proceedings at <http://www.atmseminar.org>.
21. Stefan Reitmann, Sameer Alam and Michael Schultz, "Advanced Quantification of Weather Impact on Air Traffic Management", 13th USA/Europe Air Traffic Management Research and Development Seminar (ATM2019), 17-21 June 2019. Online proceedings at <http://www.atmseminar.org>.
22. Gammana Guruge Nadeesha Sandamali, Rong Su and Yicheng Zhang, "Short-term En route Air Traffic Flow Management Under Departure and Wind Uncertainty with a Heuristic and Greedy Solution Approach", 2019 American Control Conference, 10 - 12 July 2019. <https://ieeexplore.ieee.org/remotexs.ntu.edu.sg/abstract/document/8814968>
23. Ta Duong, Ketan Todi, Umang Chaudhary, and Hong-Linh Truong, "Decentralizing Air Traffic Flow Management with Blockchain-based Reinforcement Learning", IEEE International Conference on Industrial Informatics, INDIN'19, 22-25 July 2019. <https://users.aalto.fi/~truongh4/publications/2019/truong-indin2019.pdf>
24. Wee, H.J., S.W. Lye, and J.-P. Pinheiro, "Monitoring Performance Measures for Radar Air Traffic Controllers using Eye Tracking Techniques", 10th International Conference on

Applied Human Factors and Ergonomics (AHFE 2019), pp.727-738, 24-28 July 2019.
https://doi.org/10.1007/978-3-030-20503-4_65

25. Sim Kuan Goh, Ngoc Phu Tran, Duc-Thanh Pham, Sameer Alam, Kurtulus Izzetoglu, and Vu Duong, "Construction of Air Traffic Controller's Decision Network Using Error-Related Potential", International Conference on Human-Computer Interaction, pp. 384-393. Springer, Cham, 26 - 31 July 2019. https://link.springer.com/chapter/10.1007/978-3-030-22419-6_2
26. Thanh Pham, Man Ngo, Nam Tran, Sameer Alam and Vu Duong, Michael Schultz and Stefan Reitmann and Sameer Alam, "Data-driven approach for taxi-time prediction: a case study of Changi airport", ENRI International Workshop on ATM/CNS (EIWAC2019), 29 – 31 October 2019.
https://www.eiwac.jp/en/program/pdf/EIWAC2019_Abstract_final_9.pdf
27. Michael Schultz and Sameer Alam, "A machine learning framework for data driven airport management", ENRI International Workshop on ATM/CNS(EIWAC2019), 29 – 31 October 2019. https://www.eiwac.jp/en/program/pdf/EIWAC2019_abst_EN-A-8.pdf
28. Pang Bizhao, Ng Ee Meng, Low Kin Huat, "Contingency Management of Urban UTM (UAS Traffic Management) Based on Airspace Contexts", The International Civil Aviation Organization (ICAO) Drone Enable/3, 12 - 14 November 2019.
29. Jiangjun Tang, Sameer Alam and Hussein Abbass, "An Airspace Collision Risk Simulator for Safety Assessment", 2019 Winter Simulation Conference (WSC), Washington 2019 (accepted)
30. Michael Schultz and Stefan Reitmann and Sameer Alam, "Classification of Weather Impacts on Airport Operations", 2019 Winter Simulation Conference (WSC), Washington 2019 (accepted)
31. Wee, H.J., S.W. Lye, and J.-P. Pinheiro, "A Fixation-Click Count Signature as a Visual Monitoring Enhancement Feature for Air Traffic Controllers", IHSI 2: Humans and Artificial Cognitive Systems, IHSI International Intelligent Human Systems Integration Conference, February 2020 (accepted)