Dr Xinwei Wang
BSc (Honours), PhD

School of Engineering and Materials Science
Queen Mary University of London
Mile End Road
London E1 4NS

tel: +44 (0)20 7882 8732
email: xinwei.wang@qmul.ac.uk   web: www.sems.qmul.ac.uk/xinwei.wang

---

2024

Joint Optimization of Speed and Holding Time Control for Bus Rapid Transit: A Multiobjective Approach.
Liu X, Miao X, Zhao J, Lu J and Wang X. *Journal of Transportation Engineering Part a Systems vol. 151, (2). American Society of Civil Engineers (Asce).*

Joint optimization of truck-drone routing for last-mile deliveries in urban areas.
Liu M, Li Y and Wang X. *Transportmetrica a Transport Science vol. ahead-of-print, (ahead-of-print) 1-27.Taylor & Francis.*

A platoon formation algorithm for intersections with blue phase control in mixed traffic.
Hao R, Gao S, Wang X, Ma W, van Arem B and Wang M. *Journal of Intelligent Transportation Systems vol. ahead-of-print, (ahead-of-print) 1-19.Taylor & Francis.*

Artificial intelligence (AI) futures: India-UK collaborations emerging from the 4th Royal Society Yusuf Hamied workshop.
Dwivedi YK, Hughes L, Bhadeshia HKDH, Ananiadou S, Cohn AG, Cole JM, Conduit GJ, Desarkar MS and Wang X. *International Journal of Information Management vol. 76,.Elsevier.*

Hierarchical Disturbance Propagation Mechanism and Improved Contract Net Protocol for Satellite TT&C Resource Dynamic Scheduling.
Xiang Z, Gu Y, Wang X and Wu G. *Complex System Modeling and Simulation vol. 4, (2) 166-183.Institute of Electrical and Electronics Engineers (IEEE).*

Constrained docking control for shipborne UAV SideArm recovery.
Zikang S, Zhuolin X, Xuebing L, Chuntao L, Xinwei W and Honglun W. *Chinese Journal of Aeronautics vol. 37, (5) 39-59.Elsevier.*

Dynamic capacity drop propagation in incident-affected networks: Traffic state modeling with SIS-CTM.
Wang J, Zou L, Zhao J and Wang X. *Physica a Statistical Mechanics and Its Applications vol. 637,.Elsevier.*

Reachability-Based Confidence-Aware Probabilistic Collision Detection in Highway Driving.
Wang X, Li Z, Alonso-Mora J and Wang M. *Engineering vol. 33, 90-107.Elsevier.*

Unified strategy for cooperative optimization of pedestrian control patterns and signal timing plans at intersections.
Wang J, Zhang Y, Zhao J, Shang C and Wang X. *Journal of Intelligent Transportation Systems vol. 29, (2) 170-196. Taylor & Francis.*

Generalized Model and Deep Reinforcement Learning-Based Evolutionary Method for Multitype Satellite Observation Scheduling.
Song Y, Ou J, Pedrycz W, Suganthan PN, Wang X, Xing L and Zhang Y. *IEEE Transactions On Systems Man and Cybernetics Systems vol. 54, (4) 2576-2589.Institute of Electrical and Electronics Engineers (IEEE).*

2023

Quantitative Analysis of Vehicular Traffic Flow Order at Signalized Intersections.
Zhang R, Zhao J, Liu P and Wang X. *Journal of Transportation Engineering Part a Systems vol. 150, (2).American Society of Civil Engineers (Asce).*

A riskbased driver behaviour model.
Yuan Y, Wang X, Calvert S, Happee R and Wang M. *Iet Intelligent Transport Systems vol. 18, (1) 88-100.Institution of Engineering and Technology (Iet).*

Continual Interactive Behavior Learning With Traffic Divergence Measurement: A Dynamic Gradient Scenario Memory Approach.
Lin Y, Li Z, Gong C, Lu C, Wang X and Gong J. *IEEE Transactions On Intelligent Transportation Systems vol. 25, (3) 2355-2372.Institute of Electrical and Electronics Engineers (IEEE).*

Extracting Multi-objective Multigraph Features for the Shortest Path Cost Prediction: Statistics-based or Learning-based?.
Liu S, Wang X, Weiszer M and Chen J. *Green Energy and Intelligent Transportation 100129-100129.Elsevier.*

Continual driver behaviour learning for connected vehicles and intelligent transportation systems: Framework, survey and challenges.
Li Z, Gong C, Lin Y, Li G, Wang X, Lu C, Wang M, Chen S and Gong J. *Green Energy and Intelligent Transportation vol. 2, (4).Elsevier.*

Orbit Determination and Thrust Estimation for Noncooperative Target Using Angle-Only Measurement.
Zhang Z, Shu L, Zhang K, Zhu Z, Zhou M, Wang X and Yin W. *Space Science & Technology vol. 3,.American Association For The Advancement of Science (Aaas).*

2022

Coordinated Scheduling of Air and Space Observation Resources via Divide-and-Conquer Framework and Iterative Optimization.
Wu G, Mao X, Chen Y, Wang X, Liao W and Pedrycz W. *IEEE Transactions On Aerospace and Electronic Systems vol. 59, (4) 3631-3642.Institute of Electrical and Electronics Engineers (IEEE).*

An Interval Type-2 Fuzzy Logic Based Map Matching Algorithm for Airport Ground Movements.
Wang X, Brownlee AEI, Weiszer M, Woodward JR, Mahfouf M and Chen J. *IEEE Transactions On Fuzzy Systems. Institute of Electrical and Electronics Engineers.*

Simulated Annealing-Based Heuristic for Multiple Agile Satellites Scheduling Under Cloud Coverage Uncertainty.
Han C, Gu Y, Wu G and Wang X. *IEEE Transactions On Systems Man and Cybernetics Systems vol. 53, (5) 2863-2874.Institute of Electrical and Electronics Engineers (IEEE).*

Large Region Targets Observation Scheduling by Multiple Satellites Using Resampling Particle Swarm Optimization.
Gu Y, Han C, Chen Y, Liu S and Wang X. *IEEE Transactions On Aerospace and Electronic Systems vol. 59, (2) 1800-1815.Institute of Electrical and Electronics Engineers (IEEE).*

Multi-satellite emergency scheduling algorithm considering dynamic selection of neighborhood structure.
Wu GH, Du X, Wang XW, Chen XJ, Zhang WF and Mao CH. *Kongzhi Yu Juece/Control and Decision vol. 37, (7) 1685-1694.*

Probabilistic Risk Metric for Highway Driving Leveraging Multi-Modal Trajectory Predictions.
Wang X, Alonso-Mora J and Wang M. *IEEE Transactions On Intelligent Transportation Systems vol. 23, (10) 19399-19412.Institute of Electrical and Electronics Engineers (IEEE).*

Ensemble of Metaheuristic and Exact Algorithm Based on the Divide-and-Conquer Framework for Multisatellite Observation Scheduling.
Wu G, Luo Q, Du X, Chen Y, Suganthan PN and Wang X. *IEEE Transactions On Aerospace and Electronic Systems vol. 58, (5) 4396-4408.Institute of Electrical and Electronics Engineers (IEEE).*

2021

A chance-constrained programming model for airport ground movement optimisation with taxi time uncertainties.
Wang X, Brownlee AEI, Weiszer M, Woodward J, Mahfouf M and Chen J. *Transportation Research Part C: Emerging Technologies.Elsevier.*

Neural-Adaptive Constrained Flight Control for AirGround Recovery Under Terrain Obstacles.
Su Z, Wang X and Wang H. *IEEE Transactions On Aerospace and Electronic Systems vol. 58, (1) 374-390.Institute of Electrical and Electronics Engineers (IEEE).*

Robust scheduling for multiple agile Earth observation satellites under cloud coverage uncertainty.
Wang X, Gu Y, Wu G and Woodward JR. *Computers & Industrial Engineering vol. 156,.Elsevier.*

Novel method to calculate satellite visibility for an arbitrary sensor field.
Han C, Zhang Y, Bai S, Sun X and Wang X. *Aerospace Science and Technology vol. 112,.Elsevier.*

2020

Task Scheduling Method for Data Relay Satellite Network Considering Breakpoint Transmission.
Chen X, Li X, Wang X, Luo Q and Wu G. *IEEE Transactions On Vehicular Technology vol. 70, (1) 844-857.Institute of Electrical and Electronics Engineers (IEEE).*

Aircraft taxi time prediction: Feature importance and their implications.
Wang X, Brownlee AEI, Woodward JR, Weiszer M, Mahfouf M and Chen J. *Transportation Research Part C: Emerging Technologies vol. 124,.Elsevier.*

Agile Earth Observation Satellite Scheduling Over 20 Years: Formulations, Methods, and Future Directions.
Wang X, Wu G, Xing L and Pedrycz W. *IEEE Systems Journal vol. 15, (3) 3881-3892.Institute of Electrical and Electronics Engineers (IEEE).*

2019

Onboard satellite visibility prediction using metamodeling based framework.
Wang X, Han C, Yang P and Sun X. *Aerospace Science and Technology vol. 94,.Elsevier.*

Robust Earth Observation Satellite Scheduling With Uncertainty of Cloud Coverage.
Wang X, Song G, Leus R and Han C. *IEEE Transactions On Aerospace and Electronic Systems vol. 56, (3) 2450-2461.Institute of Electrical and Electronics Engineers (IEEE).*

Visibility optimization of satellite constellations using a hybrid method.
Han C, Bai S, Zhang S, Wang X and Wang X. *Acta Astronautica vol. 163, 250-263.Elsevier.*

On-orbit servicing of geosynchronous satellites based on low-thrust transfers considering perturbations.
Han C, Zhang S and Wang X. *Acta Astronautica vol. 159, 658-675.Elsevier.*

Scheduling Multiple Agile Earth Observation Satellites for Oversubscribed Targets Using Complex Networks Theory.
Wang X, Han C, Zhang R and Gu Y. *IEEE Access vol. 7, 110605-110615.Institute of Electrical and Electronics Engineers (IEEE).*

2018

A modified adaptive backstepping method for shaft deflection tracking control of magnetically suspended momentum wheel with nonlinear magnetic torque.
Wang X, Han C, Yu Y and Yang Z. *Journal of The Franklin Institute vol. 355, (7) 3274-3287.Elsevier.*

2017

A non-saturated sliding-mode control of shaft deflection for magnetically suspended momentum wheel with coupled disturbance and saturated amplifier.
Han C, Wang X, Yu Y and Yang Z. *Acta Astronautica vol. 139, 233-242.Elsevier.*

2016

Scheduling for single agile satellite, redundant targets problem using complex networks theory.
Wang X-W, Chen Z and Han C. *Chaos Solitons & Fractals vol. 83, 125-132.Elsevier.*