

PUBLISHED JOURNAL PAPERS

2025

H. Caceres, M. Duran, H. Lespay, J.B. Conteras and R. Batta, "School Bus Routing Problem with Open Offer Policy: A case study in a New York school district," to appear in *Computers & Industrial Engineering*. SCHOOL BUS ROUTING

E. Dasdemir, E. Jose and R. Batta, "Scheduling and Routing with Degradation-Triggered Arrivals: An Application to Forest Fighting with an Unmanned Aerial Vehicle Fleet," to appear in *European Journal of Operational Research*. JOB SCHEDULING

Y. Zhou and R. Batta, "Using Imperfect Sensors and Blocks to Reduce Infiltration Success at a Border Crossing," to appear in *International Journal of Operational Research*. MILITARY OPERATIONS RESEARCH

H. Vempati, J. Bhadury and R. Batta, "Locating Inspection Points to Control Hazmat Transportation Risk," to appear in *International Journal of Mathematics in Operational Research*. HAZMAT ROUTING

N. Oladzad and R. Batta, "Using Prize-Collection Concepts to Solve Time-Limited Search Problems: A Military and Security Case Study," to appear in *Military Operations Research*. SEARCH PROBLEMS

F. Mousapour, R. Batta and J. L. Walteros, "On the Development and Analysis of a Comprehensive Police Patrolling Model," to appear in *European Journal of Transportation and Logistics*. POLICE PATROLLING

M. Sabbaghtrokan, R. Batta and Q. He, "Adding Servers to Reinforce Facilities in a Spatially Distributed Queueing System," *Computers & Operations Research*, 173, 106862. FACILITY LOCATION

2023

A. Narin, J. Becker and R. Batta, "UAV Search Optimization for Recording Emerging Targets with Camouflaging Capabilities," *The Journal of Defense Modeling and Simulation*, 15485129231203020. UAV ROUTING

B. Bhattacharya, R. Batta, L. Lin and P. Ram, "Mathematical Programming Methods for Reducing Inequity due to Stock-outs of Pharmaceuticals in Low-resourced Regions using a Mobile Pharmacy," *Computers & Industrial Engineering* (2023), Volume 182, 109353. HEALTH CARE DELIVERY

A. Khare, R. Batta and Q. He, "Using Social Media to Enhance the Search for Gasoline During a Hurricane Evacuation Event," *EURO Journal on Transportation and Logistics* (2023), Volume 12, 100111. HUMANITARIAN LOGISTICS

M. Moskal, E. Dasdemir and R. Batta, "Unmanned Aerial Vehicle Information Collection Missions with Uncertain Characteristics," *INFORMS Journal on Computing* (2023), 35 (1), 120-137. UAV ROUTING

J. Becker and R. Batta, "Canadian Prize Collection Problem: Assessing the Impact of a Disaster Event," *Military Operations Research* (2023), Vol. 28, No. 2, 55-92. DISASTER ESTIMATION

2022

E. Dasdemir, R. Batta, M. Koksalan and D. Ozturk, "UAV Routing for Reconnaissance Mission: A Multi-Objective Orienteering Problem with Time-dependent Prizes and Multiple Connections," *Computers & Operations Research* (2022), 145, 105882. UAV ROUTING

M. Sabbaghtorkan, R. Batta and Q. He, "Managing Gas Supplies in a Short-notice Hurricane Evacuation," *OR Spectrum*, (2022), Vol. 44, No. 3, pp. 911-945. HUMANITARIAN LOGISTICS

2021

S. Jotrao and R. Batta, "Time Constrained UAV Path Planning in 3D Network for Maximum Information Gain," *Military Operations Research*, (2021), Vol 26, No. 3, pp. 5-25. UAV ROUTING

P. Cho and R. Batta, "UAV Search Path Optimization for Recording Emerging Targets," *Military Operations Research*, (2021), Vol. 26, No. 3, pp. 27-48. UAV ROUTING

A. Khare, R. Batta and J.E. Kang, "On the Analysis of Last-Mile Relief Delivery on a Tree Network: Application to the 2015 Nepal Earthquake," *Journal of the Operational Research Society*, (2021), Vol. 72, pp. 727-743. HUMANITARIAN LOGISTICS

A. Madani, R. Batta and M. Karwan, "The Balancing Traveling Salesman Problem: Application to Warehouse Order Picking," *TOP*, Vol. 29, (2021), Vol. 29, pp. 442-469. WAREHOUSE ORDER PICKING

2020

F. Aarabi and R. Batta, "A Mixed Integer Programming Approach for Scheduling Spatially Distributed Jobs with Degradation Rate: Application to Pothole Repair," *Socio-Economic Planning Sciences*, (2020), Vol. 72, December. JOB SCHEDULING

M. Taslimi, R. Batta and C. Kwon, "Medical Waste Collection Considering Transportation and Storage Risk," *Computers & Operations Research*, (2020), Vol. 120, August. HAZMAT ROUTING

N. Wei, J. Walteros and R. Batta, "On the Distance between Random Events on a Network," *Networks*, (2020), Vol. 75, pp. 203–231. URBAN OPERATIONS RESEARCH

A. Khare, Q. He and R. Batta, "Predicting Gasoline Shortage During Disasters Using Social Media," *OR Spectrum*, (2020), Vol. 42, pp. 693-726. HUMANITARIAN LOGISTICS

M. Sabbaghtorkan, R. Batta and Q. He, "Prepositioning of Resources and Supplies in Disaster Operations Management: Review and Research Gap Identification," *European Journal of Operational Research*, (2020), Vol. 284, pp. 1-19. HUMANITARIAN LOGISTICS

B. Bhattacharya, L. Lin, R. Batta and P. Ram, "Stock-out Severity Index: Tool for Evaluating Inequity in Drug Stock-outs," *Central European Journal of Operations Research*, (2020), Vol. 28, pp. 1243-1263. HEALTH CARE DELIVERY

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Y. C. Hsu, J. Walteros and R. Batta, "Solving the Petroleum Replenishment and Routing Problem with Variable Demands and Time Windows," *Annals of Operations Research*, (2018), pp. 1-38. PETROLEUM REPLENISHMENT

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H. Caceres, R. Batta and Q. He, "School Bus Routing with Stochastic Demand and Duration Constraints," *Transportation Science*, Vol. 51, No. 4, (2017), pp. 1349-1364. SCHOOL BUS ROUTING

D. Sun, J. Kang, R. Batta and Y. Song, "Optimization of Evacuation Warnings Prior to a Hurricane Disaster," *Sustainability*, Vol. 9, No. 11, (2017), pp. 2152. HUMANITARIAN LOGISTICS

M. Moskal and R. Batta, "Macrogrid Approach for Routing UAVs in Support of Information Gathering," *Military Operations Research*, Vol. 22, No. 4, (2017), pp. 35-54. UAV ROUTING

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M. Taslimi, R. Batta and C. Kwon, "A Comprehensive Modeling Framework for Hazmat Network Design, Hazmat Response Team Location, and Equity of Risk," *Computers & Operations Research*, Vol. 79, (2017), pp. 119-130. HAZMAT ROUTING

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D. Myers, R. Batta and M. Karwan, "A Real-Time Network Approach for Including Obstacles and Flight Dynamics in UAV Route Planning," *Journal of Defense Modeling and Simulation*, Vol. 13, No. 3, (2016), pp. 291-306. UAV ROUTING

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