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# MOHAMED KHARBECHÉ



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[https://scholar.google.com/citations?user=t\\_9LjkkAAAAJ&hl=fr&oi=sra](https://scholar.google.com/citations?user=t_9LjkkAAAAJ&hl=fr&oi=sra)



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<http://qufaculty.qu.edu.qa/mkharbec/>

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## ACADEMIC EXPERIENCE (16 YEARS)

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### Since October 2014

Research Associate, Qatar Transportation and Traffic Safety Center, Qatar University, Qatar.

### January 2011 - September 2014

Postdoctoral Fellow, Mechanical and Industrial Engineering Department, Qatar University, Qatar.

### July 2009 - December 2010

Lecturer and Research Engineer, Université De Technologie De Compiègne (Utc), France.

### August 2006 - June 2009

Lecturer at High School of Economic and Commercial Sciences (ESSEC), Tunisia.

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## EDUCATION

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### April 2011

**Ph.D. in Management (sp. Operations Research)** / Higher Institute of Management (ISG), University of Tunis, Tunisia.

**Thesis title:** Exact and Heuristic Methods for Generalized Permutation Flow Shop Problems. **Supervisor:** Prof. Mohamed Haouari.

### July 2006

**M. Sc. in Modeling (sp. Operations Research)** / Higher Institute of Management (ISG), University of Tunis, Tunisia.

**Supervisor:** Prof. Mohamed Haouari.

### July 2004

**B. Sc. Economics (sp. Financial and Banking Economics)** / High School of Economic and Commercial Sciences (ESSEC), University of Tunis.

### June 1999

**Baccalaureate in Mathematics** / Technical School of Menzel Temime, Tunisia.

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## RESEARCH INTERESTS

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Design and analysis of exact and approximate solution procedures for combinatorial optimization problems, with applications in: Manufacturing, Robotic cell scheduling, Machine & Aircraft scheduling, Retail operations management, Transportation & Traffic Safety, Supply Chain Management.

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## KEYWORDS

Operations Research, Combinatorial Optimization, Manufacturing, Optimization in Transportation Problems, Supply Chain, Retail Operations, Transportations & Traffic Safety, IoT.

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## TECHNICAL REVIEWER

Supply Chain Forum: An International Journal, International Journal of Management Science and Engineering Management, Journal of the Operational Research Society, Operational Research, Computers & Operations Research, Transportation Research Part C: Emerging Technologies, International Journal of Planning and Scheduling, Safety Science, International Journal of Injury Control and Safety Promotion, Traffic Injury Prevention, IEEE Access, Transportation Research Interdisciplinary Perspectives.

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## PUBLICATIONS

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### BOOK CHAPTER:

1. Al-Salem, M., Haouari, M., **Kharbeche, M.**, & Khallouli, W. (2016). A free-slack-based genetic algorithm for the robotic cell problem with controllable processing times. In *Heuristics, Metaheuristics and Approximate Methods in Planning and Scheduling* (pp. 77-93). Springer, Cham.

### INTERNATIONAL REFEREED JOURNALS:

1. Jabbar, R., Fetais, N., **Kharbeche, M.**, Krichen, M., Barkaoui, K. & Shinoy, M., (2021). Blockchain for The Internet of Vehicles: How to use Blockchain to secure Vehicle-to-Everything (V2X) Communication and Payment. *IEEE Sensors*, 21, 15807-15823.
2. Muley, D., Mohammad, A., Ghanim, M., **Kharbeche, M.** (2021). Quantifying the Impact of Covid-19 Preventive Measures on Traffic in the State of Qatar. *Transport Policy*, 103, 45-59.
3. Jiang, S., Jafari, M., **Kharbeche, M.**, Jalayer, M., & Al-Khalifa, K. N. (2020). Safe Route Mapping of Roadways Using Multiple Sourced Data. *IEEE Transactions on Intelligent Transportation Systems*, doi: 10.1109/TITS.2020.3032643.
4. Jabbar, R., **Kharbeche, M.**, Al-Khalifa, K., Krichen, M., & Barkaoui, K. (2020). Blockchain for the internet of vehicles: a decentralized IoT solution for vehicles communication using Ethereum. *Sensors*, 20(14), 3928.
5. Downey, L. T., Saleh, W., Muley, D., & **Kharbeche, M.** (2019). Pedestrian crashes at priority-controlled junctions, roundabouts, and signalized junctions: The UK case study. *Traffic injury prevention*, 20(3), 308-313.
6. Arbabzadeh, N., Jafari, M., Jalayer, M., Jiang, S., & **Kharbeche, M.** (2019). A hybrid approach for identifying factors affecting driver reaction time using naturalistic driving data. *Transportation research part C: emerging technologies*, 100, 107-124.
7. Muley, D., **Kharbeche, M.**, Alhajyaseen, W. K., & Al-Salem, M. (2019). Empirical study on pedestrian signal design and compliance in the state of Qatar. *International Journal of Civil Engineering*, 17(11), 1653-1666.
8. Muley, D., **Kharbeche, M.**, Alhajyaseen, W. K., & Al-Salem, M. (2019). Empirical study on pedestrian signal design and compliance in the state of Qatar. *International Journal of Civil Engineering*, 17(11), 1653-1666.
9. Al-Salem, M., & **Kharbeche, M.** (2017). Throughput optimization for the Robotic Cell Problem with Controllable Processing Times. *RAIRO-Operations Research*, 51(3), 805-818.
10. Maddah, B., **Kharbeche, M.**, Pokharel, S., & Ghoniem, A. (2016). Joint replenishment model for multiple products with substitution. *Applied Mathematical Modelling*, 40(17-18), 7678-7688.
11. Mrad, M., Gharbi, A., Haouari, M., & **Kharbeche, M.** (2016). An optimization-based heuristic for the machine reassignment problem. *Annals of Operations Research*, 242(1), 115-132.

12. Hancerliogullari, G., Rabadi, G., Al-Salem, A. H., & **Kharbeche, M.** (2013). Greedy algorithms and metaheuristics for a multiple runway combined arrival-departure aircraft sequencing problem. *Journal of Air Transport Management*, 32, 39-48.
13. Haouari, M., & **Kharbeche, M.** (2013). An assignment-based lower bound for a class of two-machine flow shop problems. *Computers & operations research*, 40(7), 1693-1699.
14. **Kharbeche, M.**, & Haouari, M. (2013). MIP models for minimizing total tardiness in a two-machine flow shop. *Journal of the Operational Research Society*, 64(5), 690-707.
15. **Kharbeche, M.**, Carlier, J., Haouari, M., & Moukrim, A. (2011). Exact methods for the robotic cell problem. *Flexible services and manufacturing journal*, 23(2), 242-261.
16. Carlier, J., Haouari, M., **Kharbeche, M.**, & Moukrim, A. (2010). An optimization-based heuristic for the robotic cell problem. *European Journal of Operational Research*, 202(3), 636-645.

#### INDEXED CONFERENCE PROCEEDINGS:

1. Muley, D., **Kharbeche, M.**, Ghonim, O., Madkoor, A., Mohamed, Y. (2021). Does Pedestrian Penalty Affect Pedestrian Behavior? A Case of the State of Qatar. *Procedia computer science* (Accepted).
2. Jabbar, R., Krichen, M., Shinoy, M., **Kharbeche, M.**, Fetais, N., & Barkaoui, K. (2020). A Model-Based and Resource-Aware Testing Framework for Parking System Payment using Blockchain. In 2020 International Wireless Communications and Mobile Computing (IWCMC) (pp. 1252-1259). IEEE.
3. Jabbar, R., Shinoy, M., **Kharbeche, M.**, Al-Khalifa, K., Krichen, M., & Barkaoui, K. (2020). Driver drowsiness detection model using convolutional neural networks techniques for android application. In 2020 IEEE International Conference on Informatics, IoT, and Enabling Technologies (ICIoT) (pp. 237-242). IEEE.
4. Jabbar, R., Krichen, M., **Kharbeche, M.**, Fetais, N., & Barkaoui, K. (2020). A Formal Model-Based Testing Framework for Validating an IoT Solution for Blockchain-based Vehicles Communication. In ENASE (pp. 595-602).
5. Ghanim, M., **Kharbeche, M.**, Hannun, J., Hannun, J., & Shamiyeh, K. (2020). Safety and Operational Performance of Signalized Roundabouts: A Case Study in Doha. *Procedia Computer Science*, 170, 427-433.
6. Jabbar, R., Shinoy, M., Kharbeche, M., Al-Khalifa, K., Krichen, M., & Barkaoui, K. (2019, December). Urban Traffic Monitoring and Modeling System: An IoT Solution for Enhancing Road Safety. In 2019 International Conference on Internet of Things, Embedded Systems and Communications (IINTEC) (pp. 13-18). IEEE.
7. Muley, D., Ghanim, M., & **Kharbeche, M.** (2018). Prediction of Traffic Conflicts at Signalized Intersections using SSAM. *Procedia computer science*, 130, 255-262.
8. Jabbar, R., Al-Khalifa, K., **Kharbeche, M.**, Alhajyaseen, W., Jafari, M., & Jiang, S. (2018). Real-time driver drowsiness detection for android

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#### TECHNICAL REVIEWER

World Conference on Transport Research Society, International Conference on Modeling, Simulation and Applied Optimization, International Traffic Safety Conference.

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#### AWARDS

The College of Engineering Researcher Award for Outstanding Contribution, 5th place, Qatar University 2013.

Winning ISERC Paper, OR Track. Industrial and Systems Engineering Research Conference, Orlando, FL, May 2012.

application using deep neural networks techniques. *Procedia computer science*, 130, 400-407.

9. Muley, D., Alhajyaseen, W., **Kharbeche, M.**, & Al-Salem, M. (2018). Pedestrians' Speed Analysis at Signalized Crosswalks. *Procedia computer science*, 130, 567-574.
10. Muley, D., **Kharbeche, M.**, Alhajyaseen, W., & Al-Salem, M. (2017). Pedestrians' Crossing Behavior at Marked Crosswalks on Channelized Right-Turn Lanes at Intersections. *Procedia computer science*, 109, 233-240.
11. Muley, D., Alhajyaseen, W., & Kharbeche, M. (2017). An overview of pedestrian signal setting and implementation in the State of Qatar. *Procedia Computer Science*, 109, 545-552.
12. Al-Salem, M., **Kharbeche, M.**, Khallouli, W., & Haouari, M. (2015). Solving the Robotic Cell Problem with Controllable Processing Times. In 2015 IEEE International Conference on Industrial Engineering and Engineering Management (IEEM), IEEE, 1179-1183.
13. Al-Salem, A., Farhadi, F., **Kharbeche, M.**, & Ghoniem, A. (2012). Multiple-runway aircraft sequencing problems using mixed-integer programming. In IIE Annual Conference. Proceedings (p. 1). Institute of Industrial and Systems Engineers (IISE).
14. Rabadi, G., Hancerliogullari, G., **Kharbeche, M.**, & Al-Salem, A. (2012). Meta-heuristics for Aircraft Arrival and Departure Scheduling on Multiple Runways. In IIE Annual Conference. Proceedings (p. 1). Institute of Industrial and Systems Engineers (IISE).
15. Gharbi, A., Azaiez, M. N., & **Kharbeche, M.** (2010). Minimizing expected attacking cost in networks. *Electronic Notes in Discrete Mathematics*, 36, 947-954.
16. **Kharbeche, M.**, Carlier, J., Haouari, M., & Moukrim, A. (2010). Exact method for the robotic cell problem. *Electronic Notes in Discrete Mathematics*, 36, 859-866.

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## TECHNICAL REPORTS

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1. Al-Khalifa, K., F. Tarlochan, **Kharbeche, M.**, H. Allaf (2017), Study on Pedestrian Safety Enhancement in Qatar report review, Qatar Transportation and Traffic Safety Center, Qatar University, Doha, Qatar, Technical Report (ISBN: 978-9927-107-24-5).
2. Al-Khalifa, K., **Kharbeche, M.**, S. Ata Abou Nada, A. S. Hamouda (2017), Safety Performance of School Buses in Qatar report review, Qatar Transportation and Traffic Safety Center, Qatar University, Doha, Qatar, Technical Report (ISBN: 978-9927-107-19-1).
3. Al-Khalifa, K., **Kharbeche, M.** et al. (2017), Doha Expressway report review, Qatar Transportation and Traffic Safety Center, Qatar University, Doha, Qatar, Technical Report.

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## RESEARCH GRANTS

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### QNRF / MME

**Mohamed Kharbeche (Lead Principal Investigator)**, Mohamed Haouari (PI) et al., “IoT-enabled Smart Food Supply Chain: Strengthening Food Security by Data-driven Optimization, Simulation, and Interactive Decision-Making Tools”, QNRF, MME02-1004-200041 (**Awarded**).

### QNRF / NPRP-S

**Mohamed Kharbeche (Principal Investigator)**, Faris Tarlochan (Lead-PI) et al., “Dangerous Driving Behavior Interventions Through the Usage of Telematics Data: Application to Young Drivers in Qatar”. QNRF, NPRP12S-0129-190017, budget USD 498,000. Jan-2020-Jan-2023.

**Mohamed Kharbeche (Principal Investigator)**, Khalifa Al-Khalifa (Lead-PI), Mohsen Jafari. “Modeling and Simulation of Road Safety and Traffic System in the State of Qatar”. QNRF, NPRP8-910-2-387, budget USD 806,615. May-2016-Nov-2019.

**Mohamed Kharbeche (Principal Investigator)**, Mohammed Al-Salem (Lead-PI), Wafa Saleh, Maher Khelifa. “Investigating Pedestrian Crossing Behavior to Improve Pedestrian Accident Rates and Severities in the State of Qatar”. QNRF, NPRP8-365-2-150, budget USD 538,668. May-2016-Jul-2018.

### QNRF / UREP

**Mohamed Kharbeche (Principal Investigator)**, Charitha Dias (Lead-PI). “Exploring the Influence of Power Paradox on Driving Behavior and Traffic Safety”. QNRF, UREP26-011-5-004, budget USD 20,000. Sept-2020-Oct-2021.

**Mohamed Kharbeche (Lead Principal Investigator)**, Imene Becheur (PI). “Quad Bike Driving Behavior in Qatar: Fatalism or Thrill Seeking”. QNRF, UREP25-027-2-014, budget USD 20,000. Feb-2020-Feb-2021.

**Mohamed Kharbeche (Principal Investigator)**, Deepti Muley (Lead-PI). “Impacts of new pedestrian laws (fines) on pedestrian safety in the state of Qatar”. QNRF, UREP25-034-5-008, budget USD 20,000. Feb-2020-Feb-2021.

**Mohamed Kharbeche (Lead Principal Investigator)**, Mohamed Ghanim (Lead-PI). “Signalized Roundabout: Safety and Operational Performance Case Study in Doha”. QNRF, UREP19-038-2-015, budget USD 15,000. Jan-2017-Apr-2018.

**Mohamed Kharbeche (Principal Investigator)**, Khalifa Al-Khalifa (Lead-PI). “Safe Transport of Hazardous Materials in Qatar”. QNRF, UREP 16 - 116 - 2 – 035, budget USD 40,000. Sep-2014-Aug-2016.

**Mohamed Kharbeche (Principal Investigator)**, Mohammed Al-Salem (Lead-PI), Abdel Magid Hamouda. "Airline flight scheduling optimization". QNRF, UREP 13 - 025 - 2 – 010, budget USD 60,000. Apr-2013-Nov-2014.

## QATAR UNIVERSITY INTERNAL GRANTS

**Mohamed Kharbeche (Lead Principal Investigator)**, "Optimization Approaches and Transport Management for School Buses in the State of Qatar". Qatar University, CENG-CG (Awarded Jan-2021).

**Mohamed Kharbeche (Principal Investigator)**, Hiba Ahmad Abed Bawadi (Lead-PI), "Medical and Allied Health Education under COVID-19 Pandemic Emergency: The Role of Emotional Health Literacy". Qatar University Emergency Response Grant (ERG), budget USD 25,000, May-2020-Dec-2020.

**Mohamed Kharbeche (Principal Investigator)**, Mark Major (Lead-PI), "The Doha Syntax, Phase 2: Urban Movement Network Validation of Space Syntax Model of Metropolitan Doha, State of Qatar". Qatar University, CENG-CG-I 18-2020/21, budget USD 75,000, Jan-2020-Dec-2021.

**Mohamed Kharbeche (Principal Investigator)**, Nuri Onat (Lead-PI), "Alternative Fuel Bus Fleet Optimization for Sustainable Public Transportation in Qatar: Towards a Carbon Neutral World Cup 2022 and Clean School Bus System". Qatar University/Marubeni, budget 100,000USD, Aug-2020-Jul-2021.

## POSTDOCTORAL GRANTS

**Mohamed Kharbeche (PostDoc)**, Ahmad Ghoniem (Lead-PI), with Co-PI Ghaith Rabadi, Old Dominion University, and Co-LPI Mohammed Al-Salem, Qatar University, "Integrated Modeling and Optimization Approaches for Airport Terminal Area Management". QNRF, NPRP09-253-2-103, Budget: \$493,032, Dec-2010-Jan-2013.

**Mohamed Kharbeche (PostDoc)**, Bacer Maddah (Lead-PI), American University of Beirut, Lebanon, and Co-LPI Ahmad Ghoniem, University of Massachusetts, Shaligram Pokharel, Qatar University, "Cutting-Edge Optimization for Modern, Consumer-Focused Retailing". QNRF, NPRP 5-591-5-082, Budget: \$511,185, 4, Dec-2012-Oct-2014.

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## TEACHING EVALUATION

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Year 2017: **3.39/4**

Year 2018: **3.52/4**

Year 2019: **3.60/4**

Year 2020: **3.56/4**

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## ABILITY TO TEACH

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Advanced Operations Research, Decision Analysis, Supply Chain and Logistics, Inventory, Facility Planning and Layout, Engineering Management, Mathematical Programming, Integer Programming, Stochastic Processes.

Special Topics: Optimization Software (ILOG CPLEX Optimization Studio, AMPL, CPLEX, GUROBI)

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## CERTIFICATE OF ACHIEVEMENT

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MITx's Principals of Manufacturing MicroMasters® Program

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## TEACHING EXPERIENCE (11 YEARS)

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### **Qatar University, Qatar** **Graduate Level**

Optimization Methods (Fall 2021)

Operations Research (Fall 2020, Spring 2020, Fall 2021)

Applied Statistics Analysis (Fall 2019)

### **Undergraduate Level**

Probability and Statistics for Engineers (Spring 2018, Summer 2020, Fall 2020)

Engineering Economics (Spring 2017, Fall 2017, Spring 2018, Fall 2018, Spring 2019, Fall 2019)

### **Université de Technologie de Compiègne (UTC), France** **Undergraduate Level**

Algorithms and Data Structures (Fall 2009, Spring 2010)

### **High School of Economic and Commercial Sciences, Tunisia** **Undergraduate Level**

IT and IoT (Fall 2007, Spring 2008, Fall 2008, Spring 2009)

Database (Fall 2007)

Assembly Language (Fall 2006, Spring 2007)

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## MITX: MASSACHUSETTS INSTITUTE OF TECHNOLOGY

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Manufacturing Systems I, from MITx November 2018.  
Management in Engineering I, from MITx November 2018.  
Supply Chain for Manufacturing I, from MITx January 2019.  
Manufacturing Process Control II, from MITx January 2019.  
Supply Chains for Manufacturing II, from MITx April 2019.  
Management in Engineering II, MITx June 2019.  
Manufacturing Process Control II, from MITx June 2019.  
Manufacturing Systems II, from MITx May 2020.

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## LANGUAGES

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Arabic, French, English

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## SUPERVISION

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### Master Thesis:

**Fall 2021:** Aisha Jaralla Al Nabet, “Resilience and Robustness of Supply Chain for Fitco Detergent Factory”. **Supervision**

**Spring 2021:** Abdulrahman Aboubakr H M Abdelzaher, “Manpower Optimization using Workload Analysis”. **Supervision**

**Fall 2020:** Norah Mohammed Al Dossri, “Optimization Models for Multiple Resource Planning”. **Co-supervision**

### Ph.D.:

**Fall 2021:** Shabna Kalappurakkal SayedMohammed, “Riding Behavior and Safety Assessment for Food Delivery Service in Qatar”. **Co-supervision**

### Senior Design Projects:

**Fall 2012:** “Exact Method for Aircraft Scheduling under Disruptions”.

**Fall 2011-2012:** “Exact and Heuristic Methods for Aircraft Scheduling over Multiple Runways”.



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## COMPUTER SKILLS

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- Optimization Software: IBM ILOG CPLEX Optimization Studio, CPLEX, GUROBI, AMPL, LINDO, LINGO
  - Manufacturing Software: FlexCap, AnyLogic
  - Programming language: C, C++, Assembly Language x86
  - Data base: SQL, Oracle: SQL\*Plus, ACCESS
  - Traffic Simulation software: PTV software: VISUM
  - Writing Software: Scientific WorkPlace, Latex,
  - Statistical Software: Eviews, SPSS
  - CMS and LMS: Joomla, Blackboard, Moodle
  - Certificate: Microsoft Word, Excel, PowerPoint, Outlook Express, Access
  - Web Conferencing: Adobe Connect, Webex, Zoom, Microsoft Teams.
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## TRAINING

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- October 2021:** Think Road Safety - Road Safety Training for External PARTNERS, World Bank Group.
- October 2021:** Sustainable Mobility Requires a New Policy Approach Today (Virtual Knowledge Exchange), World Bank Group.
- September 2021:** Supply Chain Digital Twins and Resilience Analysis
- October 2020:** 3 Key Things To Consider When Designing Your Supply Chain Model in anyLogistix
- September 2020:** Delivering Online Teaching and Learning (DOTL), Center for Excellence in Teaching and Learning (CETL), Qatar University.
- July 2020:** How to Evaluate Supply Chain Strategies with AnyLogistix?
- October 2015:** SPSS, Continuing Education Office, Qatar University.
- December 2013:** Project Management, Continuing Education Office, Qatar University.
- July 2009:** Research Engineer at Joint research unit Heuristic and Diagnoses Complex Systems  
Heudiasyc: Université de Technologie de Compiègne (UTC) with Prof. Aziz Moukrim and Jacques Carlier.
- April 2009:** Department of Industrial Engineering, College of Engineering at King Saud University in Saudi Arabia with Prof. Anis Gharbi and Mohamed Naceur Azeiz: Solving the network attacks using combinatorial optimization techniques.
- June 2007:** Joint research unit Heuristic and Diagnoses Complex Systems  
Heudiasyc: Université de Technologie de Compiègne (UTC) with Prof. Aziz Moukrim and Jacques Carlier: The complexity of the permutation flow shop with single robot.
- June 2006:** Joint research unit Heuristic and Diagnoses Complex Systems  
Heudiasyc: Université de Technologie de Compiègne (UTC) with Prof. Aziz Moukrim and Jacques Carlier: The permutation flow shop with blocking and transportation times: scheduling of robot moves.

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## AFFILIATION

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- Since 2021:** Professional Member, Institute of Industrial and Systems Engineers Society for Engineering & Management Systems.
- Since 2019:** Engineering Management, IEEE Transactions, United States.
- Since 2016:** Industrial Engineering and Operations Management Society
- Since 2015:** Transportation Research Board (TRB), United States
- Since October 2014: Qatar Transportation and Traffic Safety Center, Qatar University.
- Since 2011:** Department of Mechanical & Industrial Engineering, Qatar University.
- Since 2011:** The Institute for Operations Research and the Management Sciences INFORMS.
- Since 2011:** Recherche Opérationnelle et d'Aide à la Décision ROADEF
- July 2009-December 2010:** Heudiasyc UMR 6599, Université de Technologie de Compiègne, Centre de Recherches de Royallieu, France.
- Since 2006:** Combinatorial Optimization Research Group (CORG), Unité de Recherche ROI (Recherche Opérationnelle pour l'Industrie), Ecole Polytechnique de Tunisie, La Marsa, Tunisia.

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## INVITED LECTURES / PRESENTATIONS

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1. Jabbar, R., Al-Khalifa, K., **Kharbeche, M.**, Alhajyaseen, W., Jafari, M., & Jiang, S. (2018), Qatar Foundation Annual Research Conference, Applied Internet of Things IoT: Car monitoring system for Modeling of Road Safety and Traffic System in the State of Qatar (March 19, 2018)
2. **Kharbeche, M.** (2018), Edinburgh Napier University, A Deep Learning Solution for Driver Drowsiness Detection (July 4, 2018).
3. **Kharbeche, M.** (2018), 9th International Conference on Ambient Systems, Networks and Technologies (ANT-2018), Pedestrians' Speed Analysis at Signalized Crosswalks (May 8, 2018).
4. **Kharbeche, M.** (2018), 9th International Conference on Ambient Systems, Networks and Technologies (ANT-2018), Prediction of Traffic Conflicts at Signalized Intersections using SSAM (May 8, 2018)
5. **Kharbeche, M.** (2018), 9th International Conference on Ambient Systems, Networks and Technologies (ANT-2018), Real-time Driver Drowsiness Detection for Android Application Using Deep Neural Networks Techniques (May 8, 2018).
6. **Kharbeche, M.** (2017), 8th International Conference on Ambient Systems, Networks and Technologies (ANT-2017), An overview of pedestrian signal setting and implementation in the State of Qatar, Madeira, Portugal. (May 16, 2017).
7. **Kharbeche, M.** (2017), 8th International Conference on Ambient Systems, Networks and Technologies (ANT-2017), Pedestrians' Crossing Behavior at Marked Crosswalks on Channelized Right-Turn Lanes at Intersections, Madeira, Portugal. (May 16, 2017).
8. **Kharbeche, M.** (2017), Al-Khalifa, Qatar University Annual Research Forum, A Holistic Approach to Traffic Safety Systems in the State of Qatar, QU, Qatar. (May 3, 2017).
9. **Kharbeche, M.** (2017), Qatar University Annual Research Forum, Pedestrians' Crossing Behavior at Marked Crosswalks on Channelized Right-Turn Lanes at Intersections, QU, Qatar. (May 3, 2017).
10. **Kharbeche, M.** (2017), Research Outcome Seminar (ROS) & Roundtable on Road Safety, Modeling and Simulation of Road Safety and Traffic System in the State of Qatar, QNRF, Doha, Qatar. (April 23, 2017).
11. **Kharbeche, M.**, Al-Khalifa, K. (2016), Qatar Transport Safety Forum, Doha, Qatar, Unveiling the latest research on road safety from the Qatar Transportation and Traffic Safety Centre (October 18, 2016).
12. **Kharbeche, M.**, Al-Khalifa, K. (2016), World Day of Remembrance for Road Traffic Victims "Vital post-crash actions: Medical Care, Investigation, Justice", Improving the capacity and quality of post-crash research in Qatar (November 20, 2016).
13. **Kharbeche, M.** (2016), IATSS, Road Safety in the State of Qatar, Practices on Technologies, Systems and Culture related to Traffic Safety in Japan and Qatar (September 22, 2016).
14. **Kharbeche, M.**, 24th World International Traffic Medicine Association (ITMA), Qatar, Safety performance of school buses in the State of Qatar (November 2015).
15. **Kharbeche, M.**, Qatar University, Pricing and assortment decisions under cross-selling for retail industry (February 9, 2014).
16. **Kharbeche, M.**, Future delivery of road safety / research - Qatar perspective, National Workshop On Effective Actions On Accident Prevention to Mitigate Number of Qatar Road Accidents (October 2015).
17. **Kharbeche, M.**, A. Al-Salem, A. Ghoniem, H. Sherali (2013), INFORMS Annual Meeting, Minneapolis, USA, A Robust Genetic Algorithm for Aircraft Sequencing Over Multiple Runways (October 2013).
18. **Kharbeche, M.**, Pokharel, S., A. Ghoniem, B. Maddah (2013), INFORMS Annual Meeting, Minneapolis, USA, Product line pricing analysis in the retail industry context (October 2013).
19. **Kharbeche, M.**, Haouari, M. (2013), XXVI EURO – INFORMS, 26th European Conference on Operational Research, Rome, Italy, Heuristics for the robotic cell problem with controllable processing times (July 2013).

20. **Kharbeche, M.**, S. Azam, A. Al-nabet, S. Althalathini, A. Al-Salem (2013), XXVI EURO – INFORMS, 26th European Conference on Operational Research, Rome, Italy, Exact method for the flight track/level scheduling problem (July 2013).
21. **Kharbeche, M.**, N. A. Al-Thani, A. Al-Salem, F. A. Ansari, A. M. Hamouda, S. Al-Haidous (2012), INFORMS Annual Meeting, Phoenix, Arizona, Mathematical model for airline flight re-scheduling problem under disruptions (October 2012).
22. **Kharbeche, M.**, A. Ghoniem, H. Sherali, A. Al-Salem (2012), INFORMS Annual Meeting, Phoenix, Arizona, Aircraft rescheduling under operation disruptions (October 2012).
23. A. Al-Salem, **Kharbeche, M.**, Al-Haidous, S., F. Aansari, A. Ahmade, M. Daneshvar (2012), 13th International Conference on Project Management and Scheduling, Linear ordering formulations for the arrival-departure aircraft scheduling problem, Leuven, Belgium (April 2012).
24. G. Rabadi, A. Ghoniem, A. Al-Salem, **Kharbeche, M.**, G. Hancerliogullari, F. Shahrestanaki (2012), Qatar Foundation Annual Research Forum, Doha, Qatar, Aircraft scheduling on multiple runways.
25. **Kharbeche, M.**, A. Ghoniem, H. Sherali, A. Al-Salem (2011), INFORMS Annual Meeting, Charlotte, North Carolina, Enhanced formulations for aircraft sequencing over multiple runways.
26. **Kharbeche, M.** and Haouari, M. (2011), Tight lower bound for a class of two-machine flow shop problems. INFORMS Annual Meeting, Charlotte, North Carolina.
27. **Kharbeche, M.**, Carlier, J., Haouari, M., Moukrim, A. (2010), International Symposium on Combinatorial Optimization (ISCO), Hammamet, Tunisia, Exact method for robotic cell problem (March 2010).
28. A. Gharbi, M.N. Azeiz, **Kharbeche, M.** (2010), International Symposium on Combinatorial Optimization (ISCO), Hammamet, Tunisia, Minimizing expected attacking cost in networks (March 2010).
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## COMMITTEES AND COMMUNITY SERVICE

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**Since 2021:** Organizing Committee of the International Traffic Safety Conference, Qatar Transportation and Traffic Safety Center, Qatar University, member representing Qatar Transportation and Traffic Safety Center.

**Since 2019:** Technical Committee for the Qatar University Annual Research Forum & Exhibition, member & organizer representing Qatar Transportation and Traffic Safety Center.

**Since 2019:** College Representative, Master Thesis defense, Mechanical and Industrial Engineering Department.

**Since 2018:** Speed Management Working Group (Standing), formed by the National Traffic Safety Committee of the State of Qatar, member representing Qatar Transportation and Traffic Safety Center.

**Since 2018:** National Focus Group Pedestrian Committee / National Traffic Safety Committee of the State of Qatar, member representing Qatar Transportation and Traffic Safety Center.

**2018:** Technical Committee of the International Traffic Safety Conference, Qatar Transportation and Traffic Safety Center, Qatar University, member representing Qatar Transportation and Traffic Safety Center.

**Since 2017:** Panel Member of Senior Design Projects, Mechanical and Industrial Engineering Department

**Since 2015:** Compact Impact Simulator (Crash Sled) Committee, Qatar Transportation and Traffic Safety Center, Qatar University, Chair.