

**Amirkabir University of Technology  
(Tehran Polytechnic)**

# **AUT - DFG**

## **Joint Matchmaking Webinar**

**April 2021**

# Research Group CV

## Pooya Hosseinpour

- Assistant Professor (2018- now)  
Department of Industrial Engineering & Management Systems, Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran
- Affiliate Member (2019-2020)  
Desautels Faculty of Management, McGill University, Montreal, Canada
- Post-doctoral Researcher (2017-2018)  
Desautels Faculty of Management, McGill University, Montreal, Canada
- Visiting Researcher (2014)  
Karlsruhe Service Research Institute, Karlsruhe Institute of Technology, Karlsruhe, Germany

## Mirzapour Al-e-hashem

- Assistant Professor (2015- now)  
Department of Industrial Engineering & Management Systems, Amirkabir University of Technology (Tehran Polytechnic), Tehran, Iran
- Affiliate Professor (2013- now)  
Rennes School of Business, Rennes, France

# Research Group Interest

- Healthcare Operations Management  
*(nurse planning; stroke care services)*
- Green Logistics, Sustainable and Resilience Supply Chain Management  
*(environmental and energy consumption considerations in Transportation systems)*
- Service System Design & Management  
*(stochastic facility location with congestion; risk mitigation in service industry)*
- Logistics & Supply Chain Network Design  
*(integrated network design; location-inventory; pricing, Routing)*
- Marketing  
*(cooperative advertising; pricing)*

# Group Research/Industrial Projects

## Selected Published Papers:

- Improving service quality in a congested network with random breakdowns, *Computers & Industrial Engineering*, 2020.
- Service system design with interruption risks: a backup service risk mitigation strategy, with A. Ahmadi-Javid. *European Journal of Operational Research*, 274 (2), 417-431, 2019.
- Cooperative advertising in a capacitated manufacturer-retailer supply chain: a game-theoretic approach, with A. Ahmadi-Javid. *International Transactions in Operational Research*, 25(5), 1677-1694, 2018.
- Designing service system networks with interruption risks, with A. Ahmadi-Javid. *International Transaction in Operational Research*, online, 2017.
- A profit-maximization location-capacity model for designing a service system with risk of service interruption, with A. Ahmadi-Javid. *Transportation Research Part E: Logistics and Transportation Review*, 96, 113-134, 2016.
- Incorporating location, inventory and price decisions into a supply chain distribution network design problem, with A. Ahmadi-Javid. *Computers and Operations Research*, 56, 110-119, 2015.
- A location-inventory-pricing model in a supply chain distribution network with price-sensitive demands and inventory capacity constraints, with A. Ahmadi-Javid. *Transportation Research Part E: Logistics and Transportation Review*, 82, 238-255, 2015.
- On a cooperative advertising model for a supply chain with one manufacturer and one retailer, with A. Ahmadi-Javid. *European Journal of Operational Research*, 219, 458-466, 2012.
- A game theoretic analysis for coordinating cooperative advertising in a supply chain, with A. Ahmadi-Javid. *Journal of Optimization Theory and Applications*, 149: 138 - 150, 2011.

# Group Research/Industrial Projects

## Selected Published Papers:

- M Asghari, SMJ Mirzapour Al-e-hashem. Green vehicle routing problem: A state-of-the-art review. *International Journal of Production Economics* (2020), 107899.
- AM Fathollahi-Fard, A Ahmadi, SMJM Al-e-Hashem. Sustainable closed-loop supply chain network for an integrated water supply and wastewater collection system under uncertainty, *Journal of Environmental Management* (2020), 275, 111277.
- M. Asghari, SMJM Al-e-Hashem. A green delivery-pickup problem for home hemodialysis machines; sharing economy in distributing scarce resources. *Transportation Research Part E: Logistics and Transportation Review* (2020), 134, 101815.
- S. Mohammadi, SMJM Al-e-Hashem, Y. Rekik. An integrated production scheduling and delivery route planning with multi-purpose machines: A case study from a furniture manufacturing company. *International Journal of Production Economics* (2020), 219, 347-359.
- N Nazari-Ganje, SMJM Al-E-hashem. An Integrated Location-Inventory Routing Problem for ATMs in Banking Industry: A Green Approach, Modeling and Optimization in Green Logistics (2020), 27-52.
- S.M.J. Mirzapour Al-e-hashem, Y. Rekik. "Inventory routing problem for hazardous and deteriorating items in the presence of accident risk with transshipment option", *International Journal of Production Economics*, (2018).
- M.A. Edalatpour, S.M.J. Mirzapour Al-e-hashem," Investigation on a novel sustainable model for waste management in megacities: A case study in Tehran municipality", *Sustainable Cities and Society* (2018), 36, 286-301
- S.M.J. Mirzapour Al-e-hashem, Y. Rekik. "A hybrid L-shaped method to solve a bi-objective stochastic transshipment-enabled inventory routing problem", *International Journal of Production Economics*, (2017).
- S.M.J. Mirzapour Al-e-hashem, Z. Sazvar, K. Govindan, B. Bahli," A novel mathematical model for a multi-period, multi-product optimal ordering problem considering expiry dates in a FEFO system", *Transportation Research Part E*, (2016), 93, 232–261.
- Z. Sazvar, S.M.J. Mirzapour Al-e-hashem, A. Baboli, Akbari Jokar, "A bi-objective stochastic programming model for a centralized green supply chain with deteriorating products", *International Journal of Production Economics*, (2014), 150, 140-154.
- S.M.J. Mirzapour Al-e-hashem, A. Baboli, Z. Sazvar, " A stochastic aggregate production planning model in a green supply chain: considering flexible lead times and multiple breakpoint purchase and shortage cost functions", *European Journal of Operational Research*, (2013), 230(1), 26-41.
- S.M.J. Mirzapour Al-e-hashem, Y. Rekik,"Multi-product multi-period inventory routing problem with a transshipment option: a green approach", *International Journal of Production Economics*, (2013), in press.
- S.M.J. Mirzapour Al-e-hashem, H. Malekli, M. B. Aryanezhad, "A multi objective robust aggregate production planning in a supply chain under uncertainty", *International Journal of Production Economics*, (2011), 134 (1), 28-42
- A. Bozorgi, M.S. JabalAmeli, S.M.J. Mirzapour Al-e-hashem, "A multi-objective robust stochastic programming model for disaster relief logistics under uncertainty", *OR Spectrum*, (2011), 1-29

# Group Research/Industrial Projects

## Selected Industrial Projects:

- A data-driven approach for sales planning, Faratarh Company (Steel trader), Tehran, Iran, 2019.
- Planning wireless networks for optimal coding, Barbod Company (wireless service provider), Tehran, Iran, 2016.
- Developing models for determining optimal inventory levels of spare parts in non-manufacturing warehouses, Iran Khodro Industrial Group (automobile manufacturer), Tehran, Iran, 2016.
- Developing models for performance-effectiveness evaluation of work teams, Iran Khodro Industrial Group (Iranian automobile manufacturer), Tehran, Iran, 2015.
- Designing innovative inventory and routing policies taking into account the environmental and particularly the CO2 emission as a constraint (the partnership signed between EMLYON Business School and the TOUPARGEL Group).
- Methods and models for organization, management and coordination of production and distribution in sustainable supply chains (the partnership signed between INSA de Lyon, Sharif University of Technology and the EGIDE <http://www.egide.asso.fr/jahia/Jahia/>).

# Group Contact Information

## Pooya Hoseinpour

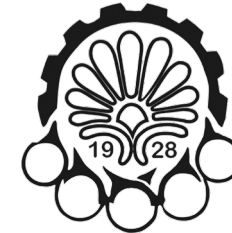
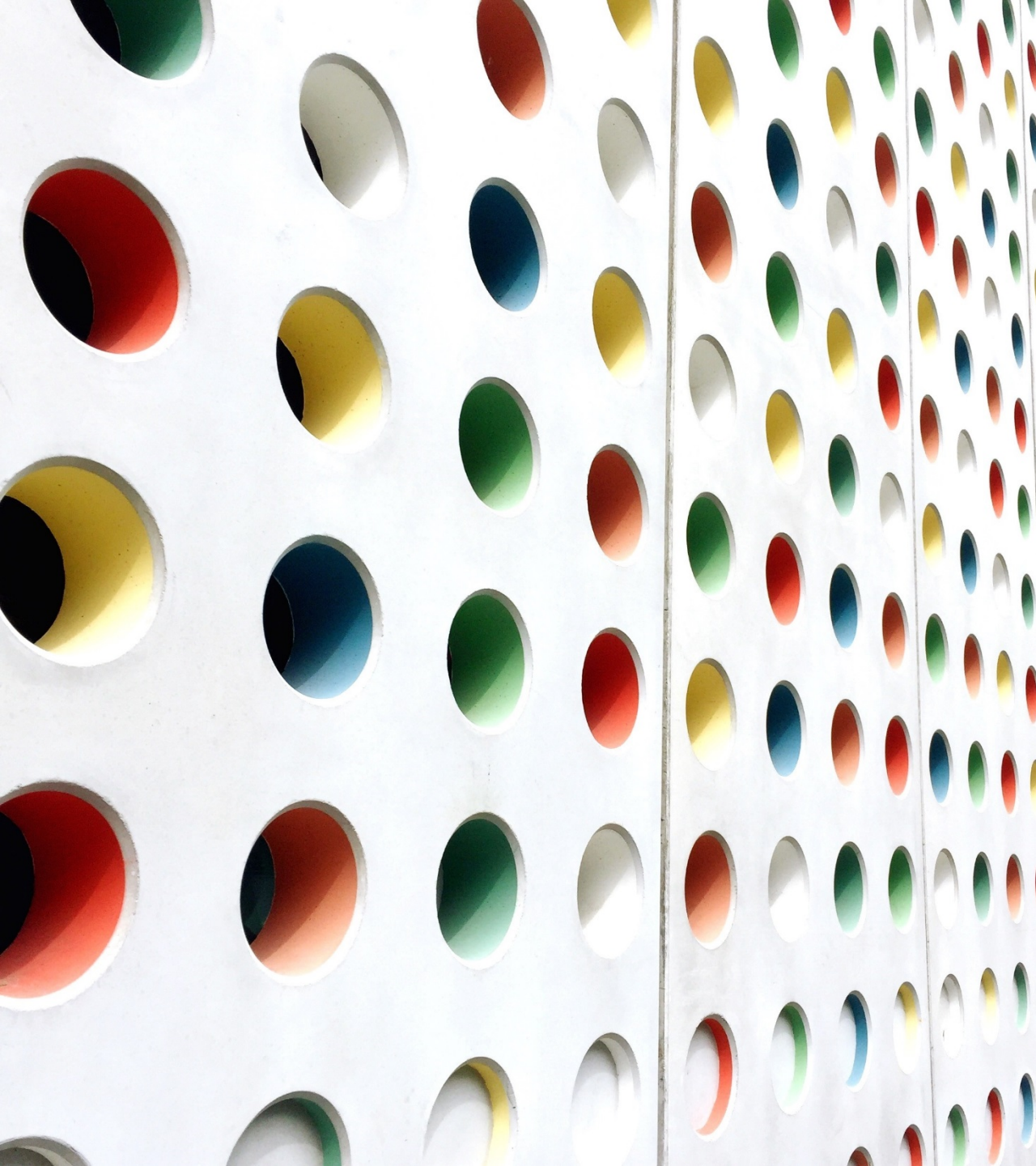
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## Mirzapour Al-e-hashem

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# Research Group CV

Research Group title: **Networked and Hybrid systems research group**  
University: K. N. Toosi University of technology (KNTU)  
Department: Systems and Control (in the faculty of electrical engineering)

Group supervisor: Dr. Babak Tavassoli (assistant professor)  
Group members: PhD and MSc students at KNTU

## *Selected publications and preprints:*

- *B. Tavassoli, Non-Conservative Distributed Control over Real-Time Network Links, IEEE Transactions on Control of Network Systems, published online 2020.*
- *P. Haghighi, B. Tavassoli, Static output feedback control of uncertain systems over uncertain communication links with guaranteed H-infinity performance, International Journal of Robust and Nonlinear Control, 2020.*
- *A. Mohammadzadeh, B. Tavassoli, B. Moaveni, Simultaneous estimation of state and packet-loss occurrences in networked control systems, ISA transactions, Vol. 107, pp. 307-315, 2020.*
- *H. A. Salehi, B. Tavassoli, A gradient algorithm for solution of the optimal control problem for hybrid switching systems, Optimal Control Applications and Methods Vol. 41, No. 6, pp. 1854-1874, 2020.*
- *B. Tavassoli, An indirect computational procedure for receding horizon hybrid optimal control, <https://arxiv.org/abs/1806.03459>.*

# Research Group Interest

Networked control systems

Markovian jump systems, delay systems, and multi-agent system approaches

Hybrid dynamical systems

Control and verification based on symbolic approach and model predictive control

Industrial automation

Distributed control systems, fieldbuses, discrete-event dynamical systems

Model predictive control

Constrained linear and nonlinear approaches, optimal adaptive control

Power system applications

Microgrids, smartgrid, power system dynamics and inter-area oscillations

Other control applications

Process control systems, motor control, vehicle control, power converters.

# Group Research/Industrial Projects

Data reconciliation and gross error detection for a Hydro-desulfurization plant (as a part of a larger project for real-time optimization)

Research institute of petroleum industry, Tehran, Iran.

Design of constrained model predictive control of a Hydro-desulfurization plant

Research institute of petroleum industry, Tehran, Iran.

# Group Supervised Labs

Programmer logic controllers lab. (Educational)

Center for research and technology at KNTU (shared with other faculty members)

# Group Contact Information

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