Erfan Babaee Tirkolaee

Assistant Professor

Affiliation
Department of Industrial Engineering, Istinye University, Istanbul, Turkey

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Educational Data

2015 - 2019; Mazandaran University of Science and Technology, Iran
Ph.D., Industrial Engineering

2012 - 2014; Isfahan University of Technology, Iran
M.Sc., Industrial Engineering

2008 - 2012; Isfahan University of Technology, Iran
B.Sc., Industrial Engineering

Teaching Experiences

Oct 2020 - Present; Istinye University, Turkey
- Multi-Criteria Decision-Making
- Operations Research
- Modeling and Optimization
- Production Planning and Control
- Supply Chain Management
- Quality and Reliability Engineering
- Facilities Design and Planning
- Capstone Project

Jan 2020 - Jul 2020; Damghan University, Iran
- Facility Layout Planning and Design
- Operations Research
- Engineering Economics

Jan 2016 - Jul 2020; University of Science & Technology of Mazandaran, Iran
- Probability Theory
- Operations Research
- Advanced Operations Research
- Facility Layout Planning and Design
- Engineering Economics

Jan 2019 - Jan 2020; Mazandaran University of Science & Technology, Iran
- Maintenance Planning
- Engineering Economics

Jan 2016 - Jul 2016; University College of Rouzbahan, Iran
- Maintenance Planning

Jan 2014 - Jan 2018; Payam Noor University, Iran
- Time and Motion Study
- Quality Control
- Industrial Engineering English
- Engineering Economics
- Management Information Systems

Sep 2012 - Jul 2014; Isfahan University of Technology, Iran (TA)
- Supply Chain Management
- Engineering Economics

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Work Experiences

Sep 2016 - Jul 2018; Farasanat Shomal Company, Iran
- Quality Assurance & Training Expert

Jul 2012 - Jul 2014; Sardsaz Novin Industries, Iran
- Production Planning Expert

Administrative Tasks

March 2022 - present; Istinye University, Turkey
- Erasmus Coordinator

Research Interests

- Supply Chain Management
- Production Planning and Scheduling
- Mathematical Modeling
- Waste Management
- Transportation and Routing
- Artificial Intelligence

Training Courses

- Knowledge Management, *IMQ*, Iran
- SPC, *IMQ*, Iran
- Principles of Management and Supervision, *IMQ*, Iran
- ISO 9001:2015, *Sapco- Iran Khodro*, Iran
- IATF 16949:2016, *Sapco- Iran Khodro*, Iran
- TPM, IMQ, Iran
- PSA requirements (Peugeot-Citroën), *Saipa*, Iran
- Process Audit, *Sapco- Iran Khodro*, Iran
- Logistic Requirements, *Sapco- Iran Khodro*, Iran
- Customer Requirements, *Sapco- Iran Khodro*, Iran

Languages

Persian
- Native language

English
- Advanced (Listening- Writing- Reading- Speaking), *IELTS Certification*

Turkish
- Intermediate (Listening- Writing- Reading- Speaking),

Computer Skills

- LINGO
- Microsoft Office
- Catia
- Photoshop
- GAMS
- Minitab
- Photoshop
- Corel VideoStudio
- MATLAB
- SPSS
- MSP
- Adobe Audition

Personal Interests

- Electronic keyboard
- Singing
- Taekwondo
- Piano
- Swimming
- Gymnastics
- Iranian Tar and Setar
- Bodybuilding
- Fishing

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Editorial Boards - ISI

1. Associate Editor of *Expert Systems with Applications (ESWA)*, (ISSN: 0957-4174). ISI-indexed journal- Elsevier,
2. Academic Editor of *PLOS ONE*, (ISSN: 1932-6203). ISI-indexed journal- PLOS,
3. Editorial Advisory Board member of *Management Decision (MD)* (ISSN: 0025-1747). ISI-indexed journal- emerald.

Editorial Boards - Scopus, ISC, etc.

1. Editorial Board member of *International Journal of Supply and Operations Management (IJSOM)* (ISSN: 2383-2525). Scopus-indexed journal- Kharazmi University,
2. Editorial Board member of *International journal of Industrial Engineering and Production Research (IJIEPR)* (ISSN: 2008-4889). Scopus-indexed journal- Iran University of Science and Technology,
3. Associate Editor of *Supply Chain Analytics (SCA)*, (ISSN: 2949-8635). Elsevier,
4. Editorial Board member of *Journal of Industrial Engineering and Management Studies* (*JIEMS*), (ISSN: 2476-3098). ISC indexed journal- Iran Center for Management Studies,
5. Editorial Board member of *Journal of Applied Research on Industrial Engineering* (*JARIE*), (ISSN: 2676-6167). ISC indexed journal,
6. Editorial Board member of *International Journal of Research in Industrial Engineering* (*RIEJ*), (ISSN: 2717-2937). ISC indexed journal,
7. Editorial Board member of *Innovation Management and Operational Strategies* (*IMOS*), (ISSN: 2717-4581). ISC indexed journal,
8. Editorial Board member of *Journal of Decisions and Operations Research* (*DMOR*), (ISSN: 2008-4854). ISC indexed Journal,
9. Editorial Board member of *Journal of Fuzzy Extension & Applications* (*JFEA*), (ISSN: 2717-3453). ISC indexed Journal,
10. Editorial Advisory Board member of *International Journal of Strategic Engineering* (ISSN:2572-4959). IGI Global,
11. Managing Editor and Editorial board member of *International Journal of Applied Optimization Studies* (*IJAOS*), (ISSN: 2645-4327).

Guest Editorial Boards - ISI

1. Tirkolaee, E. B., Azadnia, A. H., Ghadimi, P., Paydar, M. M., Leung, J., and Mirzazadeh, A. (2022-2023). Resilient, Sustainable and Smart Supply Chain Management in the Healthcare Industry: Application of Data Analytics and Optimization Techniques. *Operations Research Perspectives*, (ISSN: 2214-7160). ISI-indexed Journal- Elsevier (open),
2. Tirkolaee, E. B. (2022-2023). Advances of Artificial Intelligence for Sustainable Engineering and Medical Applications: Machine Learning and Optimization. *Bioengineering*, (ISSN: 2306-5354). ISI-indexed Journal- MDPI (open),
3. Ali, S. S., Weber, G. W., Tirkolaee, E. B., and Goli, A. (2022-2023). Circular Economy Practices in the Context of Emerging Economies. *Sustainability*, (ISSN: 2071-1050). ISI-indexed Journal- MDPI (open),
4. Erdibili, B., and Tirkolaee, E. B. (2022-2023). Sustainable Development of Industrial Engineering With the Application of Intelligent Systems. *Sustainability*, (ISSN: 2071-1050). ISI-indexed Journal- MDPI (open),

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5. Weber, G. W., Goli, A., and Tirkolaee, E. B. (2022-2023). Logistics and Operations Modelling and Optimisation for Sustainable Supply Chain. *Sustainability*, (ISSN: 2071-1050). ISI-indexed Journal-MDPI (open),

6. Lotfi, R., Weber, G. W., and Tirkolaee, E. B. (2022). Recent advances in viable and sustainable supply chain management. *Environmental Science and Pollution Research*, (ISSN: 1614-7499). ISI-indexed Journal- Springer (closed),

7. Weber, G. W., Arabnia, H., Aydin, N. S., and Tirkolaee, E. B. and Goli, A. (2021). Advances of Machine Learning and Optimization in Healthcare Systems and Medicine. *Annals of Operations Research*, (ISSN: 1572-9338). ISI-indexed Journal- Springer (closed),

8. Tirkolaee, E. B., Goli, A., and Mirjalili, S. (2021). Circular Economy Application in Designing Sustainable Medical Waste Management Systems. *Environmental Science and Pollution Research*, (ISSN: 1614-7499). ISI-indexed Journal- Springer (closed),

9. Tirkolaee, E. B., Goli, A., Golpîra, H., and Gonzalez, E. S. (2021). Sustainable Global Supply Chain Management: From an International Perspective. *Sustainability*, (ISSN: 2071-1050). ISI-indexed Journal- MDPI (closed),

10. Goli, A., Tirkolaee, E. B., and Gonzalez, E. S. (2021). Machine Learning in Sustainable Industrial Development. *Mathematical Problems in Engineering*, (ISSN: 1563-5147). ISI-indexed journal- Hindawi (closed),

11. Weber, G. W., Goli, A., and Tirkolaee, E. B. (2021). Computational Performance Analysis based on Novel Intelligent Methods: Exploration and Future Directions in Production and Logistics. *Foundations of Computing and Decision Sciences*, (ISSN: 0867-6356). ISI-indexed journal- Poznań University of Technology (closed),

12. Tirkolaee, E. B., Goli, A. and Malmir, B. (2021). Recent advances of solutions algorithms for logistics routing problems. *Logistics*, (ISSN: 2305-6290). ISI-indexed journal- MDPI (closed),

13. Goli, A., Tirkolaee, E. B. and Kumar, A. (2021). Application of Multi-Criteria Decision-Making Methodologies in the Industry. *Journal of Applied Research on Industrial Engineering*, (ISSN: 2676-6167). ISC indexed journal (closed).

Conference Chairs

○ Chair of the "*International Conference on Optimization and Data Science in Industrial Engineering* (ODSIE 2023)", June 9-10, 2023, Istinye University, Istanbul, Turkey.

Scientific Committee Members/Panel Chairs

○ Chair of the "Special Session: Advances of Optimization and Artificial Intelligence in Municipal Waste Management Systems" at *The 5-th International Conference on Intelligent Decision Science- IDS*-2022, Istanbul, Turkey,

○ Chair of the panel "Recent Advances of Circular Economy and Sustainable Development in Supply Chain Management" at *2nd International conference on science, engineering management and information technology* (*SEMIT* 2022-Sep), Ankara, Turkey,

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○ Chair of the panel "Artificial intelligence and expert systems" at *1st International conference on science, engineering management and information technology* (*SEMIT* 2022-Feb), Ankara, Turkey,

○ Member of the "Special Session: Human Factors and their Keys into Logistics and Production Planning, Development and Research" at *MANUFACTURING Conference* 2022, Poznan, Poland,

○ Member of the "Special Session: Robust and stochastic modeling in logistics, production and warehouse planning in stream Specific Applications of Stochastic Modeling and Simulation in Engineering, Management and Science" and Organizing Committee at 31th *European Conference on Operational Research-EURO ATHENS* 2021, Athens, Greece,

○ **Scientific/organizing committee member of international conferences:**

- "The 5-th International Conference on Intelligent Decision Science (2022). Istanbul, Turkey; *IDS*-2022", - "1st (Feb) and 2nd (Sep) International conference on science, engineering management and information technology (2022). Ankara, Turkey; *SEMIT* 2022",

- "International Conference on Advanced Intelligent Systems for Sustainable Development (2022). Tangier, Morocco; *AI2SD*'2022",

- *MANUFACTURING Conference* 2022, Poznan, Poland,

- "2nd International Conference on Challenges and New Solutions in Industrial Engineering and Management and Accounting (2021). Damghan, Iran; *ICCNIEMA* 2021",

- "International Conference on Polymeric, Metallic and Composite Materials (2021). Wuhan, China; *PMCM* 2021",

- "International Conference on Advanced Intelligent Systems for Sustainable Development (2021). Tangier, Morocco; *AI2SD*'2021",

- "1st National Conference on Optimization & New Solution (2021). Nahavand, Iran; Methods (2021). Nahavand, Iran; *ONSM* 2021",

- "1st National Conference on Transportation & Logistic (2021). Babolsar, Iran",

- "7th International Conference on Logistics and Supply Chain Management (2020). Tehran, Iran; *LSCM* 2020", - "International Conference on Advanced Intelligent Systems for Sustainable Development (2020). Tangier, Morocco; *AI2SD*'2020",

- "International Conference on Advanced Intelligent Systems for Sustainable Development (2019). Tangier, Morocco; *AI2SD*'2019",

- "Euro Conference on Catalysis & Chemical Engineering Advancements (2019). Rome, Italy; *Catalysis* 2019",

- "International Conference of Computer Science and Information Technology (2019). Medan, Indonesia; *ICoSNIKOM* 2019".

Reviewer/Assessor Boards of Research Councils

○ *Australian Research Council (ARC)*, Funded by the National Competitive Grants Program (NCGP) of Australia.

Reviewer Boards of Journals

○ Reviewer in more than **170** prestigious journals such as *IEEE Transactions on Fuzzy Systems* (IEEE), *Computers & Operations Research* (Elsevier), *Journal of Cleaner Production* (Elsevier), *Science of The Total Environment* (Elsevier), *Swarm and Evolutionary Computation* (Elsevier), *Waste Management* (Elsevier) and *Artificial Intelligence Review* (Springer).

Reviewer Boards of Conferences/Chapters

○ Reviewer in several international conferences (e.g., IEEE) and chapters (e.g., Springer and IntechOpen).

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Reviewer Boards of Research/Books Proposals

1. Book Proposal: Sustainability and circular economy - theory, application and the way forward. (2022). *emerald*,
2. Research Proposal: A new multi-criteria method for sustainability assessment. (2022). *Grant proposal for the National Science Center, Poland*.

Thesis Supervision/Co-Supervision

○ M.Sc. thesis. (2022-ongoing). Analysing Anti-fragility in Sustainable Supply Chains and Logistics. Yaşar University, Turkey (Co-supervisor; Student: Başak ZEYBEK),

○ M.Sc. thesis. (2021). A Multi-Objective Optimization Model to Design a Multi-Product Multi-Echelon Closed-Loop Supply Chain Considering Customers' Satisfaction. Allameh Mohaddes Nouri University, Iran (Supervisor; Student: Maedeh Kenarroodi),

○ M.Sc. thesis. (2021). Analysing social responsibility in gas contracting companies of Mazandaran province in accordance with ISO 26000 standard. Mazandaran University of Science & Technology, Iran (Co-supervisor; Student: Mohammad Ali khadmiyan),

○ M.Sc. thesis. (2019). A new method to enhance energy and lifetime of wireless sensor network based on internet of things. Mazandaran University of Science & Technology, Iran (Co-supervisor; Student: Saleh Alashti),

○ M.Sc. thesis. (2019). Patient admission scheduling problem with personnel working time planning considering personnel efficiency and over stay risk of patients. Mazandaran University of Science & Technology, Iran (Co-supervisor; Student: Maryam Janbazi),

○ M.Sc. thesis. (2018). Multi-objective Optimization of Two-echelon Green Routing Problem with Intermediate Depots in Distribution of Perishable Products . Mazandaran University of Science & Technology, Iran (Co-supervisor; Student: Shaghayegh Hadian),

○ M.Sc. thesis. (2017). Optimizing a Multi-objective Facility Location Model with Reliability Consideration in Green supply chain network design. Mazandaran University of Science & Technology, Iran (Co-supervisor; Student: Sepideh Kordjazi),

○ M.Sc. thesis. (2017). Multi-objective Optimization of Airline Network Design Problem with Fuzzy Demand. Mazandaran University of Science & Technology, Iran (Co-supervisor; Student: Negar Tavakkoli).

PhD Internship Supervision

○ Artificial Intelligence to Waste Management Systems Design. (Dec 2022). University of Mascara, Algeria (Student: Boualem Sid Ahmed El Mahdi).

International Thesis Examiner

○ M.Sc. thesis. (2022). A framework for optimising EV charging infrastructure allocation in countries in early adoption phase. Qatar University, Qatar (Student: Saeed M A Al-Muhannadi and Supervisor: Dr. Galal M. Abdella),

○ Ph.D. thesis. (2022). Using a fuzzy approach to decision support in sports performance analysis. Univerzita Hradec Králové, Czech Republic (Student: Sarka Krizkova and Supervisor: Dr. Hana Tomaskova).

Speaking Experiences

○ *"Speaker at Second International Conference on Optimization of Production and Service Systems* (COPSS 2022)", "Sustainable Fuzzy Multiple-Trip Location-Routing Problem for Medical Waste Management during the COVID-19 Outbreak", University of Isfahan (Nov 16), Guilan, Iran,

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○ *"Speaker at 1st International Conference of Business Development and Digital Transformation* (ICBDDT 2022)"*, "Sustainable Aggregate Production-Transportation Planning: Towards Digital Transformation", University of Isfahan (Nov 10), Isfahan, Iran,

○ *"Speaker at a Logistics Systems Seminar Series 2022"*, "Sustainable Aggregate Production-Transportation Planning", Yaşar University (Nov 7-11), Izmir, Turkey,

○ *"Speaker at First APORS Youth Forum* 2022"*, "Sustainable fuzzy multi-trip location-routing problem for medical waste management during the COVID-19 outbreak", Operations Research Society of China,

○ *"Speaker at Logistics Winter School* 2022"*, "Sustainable fuzzy multi-trip location-routing problem for medical waste management during the COVID-19 outbreak", Amirkabir University of Technology, Iran,

○ *"Speaker at Statistics Probability Operational Research seminars* (SPOR2021)"*, "Just-in-Time Energy-Aware Flow Shop Scheduling Problem With Outsourcing Option, Human Factors and Stochastic Demand", Atilim University, Turkey,

○ *"Speaker at The 5th International Conference on Environment and Disasters* (ICED2021)"*, "Sustainable location-allocation-transportation-inventory problem to design an urban waste management system under uncertainty", International Association of Management Science and Engineering Technology (IAMSET),

○ *"Speaker at 2nd International Conference on Challenges and New Solutions in Industrial Engineering and Management and Accounting"*, "Fuzzy Mathematical Programming and Self-Adaptive Artificial Fish Swarm Algorithm for Just-in-Time Energy-Aware Flow Shop Scheduling Problem with Outsourcing Option", Damghan University, Iran,

○ *"Speaker at International Conference on Logistics and Supply Chain Management* (LSCM2020)"*, "Designing an Efficient Optimization System to Maximize the Total Value of Reverse Logistics in Waste Management with cars", Kharazmi University, Iran.

Accomplishments/Awards

○ Featured among the *"World's Top 2% Researchers/Scientists* in 2021" list identified by Elsevier BV, Stanford University — ranked 77,495th out of 200,409 (all fields), 3,938th out of 15,713 (Information and Communication Technologies), 2,956th out of 10,949 (Information and Communication Technologies/Artificial Intelligence) and 14th out of 58 (Information and Communication Technologies/Artificial Intelligence/Environmental Sciences),

○ *Ranked* 341st researcher/scientist out of 1202 (all fields), 44th out of 166 (Information and Communication Technologies), 39th among 141 (Information and Communication Technologies/Artificial Intelligence) and 2nd out of 5 (Information and Communication Technologies/Artificial Intelligence/Environmental Sciences) in *Turkey* based on the *"World's Top 2% Researchers/Scientists* in 2021" database compiled by Elsevier BV, Stanford University,

○ *Ranked* "1st" Scientist in İstinye Üniversitesi (in the field of Engineering & Technology) AND "21st" Scientist in Turkey, "83rd" in Europe and "301st" in the World (in the field of Industrial & Manufacturing Engineering) based on AD Environmental Health Insights Index 2022,

○ *Ranked* "1st" Researcher of the Faculty of Engineering at İstinye Üniversitesi and awarded in 2021,

○ *Ranked* "11th" Turkey-based scholar with notable publication output based on *Scimago Journal Ranks* 2020,

○ *Ph.D. award winner-top doctoral thesis* in International Conference on Logistics and Supply Chain Management (LSCM2020), Kharazmi University, Iran,

○ *Top peer reviewer* and *Excellent reviewer* recognition by Clarivate WoS,

○ *Outstanding reviewer* recognition by Journal of Cleaner Production, Computers and Industrial Engineering, etc.

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Grant Projects

○ Sustainable Aggregate Production Planning using Multi-Criteria Decision-Making, Mathematical Modeling and Machine Learning, 2020-2022, *MSRT-TUBITAK*.

Book Editorship

○ Molamohamadi, Z., Tirkolaee, E. B., Mirzazadeh, A., Weber, G. W. (2021). Logistics and Supply Chain Management. *Part of the Communications in Computer and Information Science book series* (CCIS, volume 1458). ISBN: 978-3-030-89743-7.

Editorial Notes - ISI

○ Goli, A., Tirkolaee, E. B., and Weber, G. W. (2022). Preface to the Special Issue on Computational Performance Analysis based on Novel Intelligent Methods: Exploration and Future Directions in Production and Logistics. *Foundations of Computing and Decision Sciences*, 47(2), 107-110,

○ Tirkolaee, E. B., Goli, A., and Mirjalili, S. (2022). Circular economy application in designing sustainable medical waste management systems. *Environmental Science and Pollution Research*, 1-2.

Papers - ISI

1. Golpîra, H., Tirkolaee, E. B., Maihami, R., and Karimi, K. (2023). A Robust Tri-Objective Optimization to Supply Chain Configuration under Vendor-Managed Inventory Policy and Supply Chain Visibility. *Expert Systems with Applications*, In Press,

2. Korucuk, S., Tirkolaee, E. B., Aytekin, A., Karabasevic, D., and Karamaşa, Ç. (2023). Agile Supply Chain Management based on Critical Success Factors and Most Ideal Risk Reduction Strategy in the Era of Industry 4.0: Application to Plastic Industry. *Operations Management Research*, In Press,

3. Babaei, A., Khedmati, M., Akbari Jokar, M. R., and Tirkolaee, E. B. (2023). An Integrated Decision Support System to Achieve Sustainable Development in Transportation Routes with Traffic Flow. *Environmental Science and Pollution Research*, In Press,

4. Babaei, A., Khedmati, M., Akbari Jokar, M. R., and Tirkolaee, E. B. (2023). Designing an integrated blockchain-enabled supply chain network under uncertainty. *Scientific Reports*, 13(1), 3928,

5. Babaei, A., Khedmati, M., Akbari Jokar, M. R., and Tirkolaee, E. B. (2023). Designing an integrated blockchain-enabled supply chain network under uncertainty. *Expert Systems with Applications*, 119792,

6. Torkayesh, A. E., Tirkolaee, E. B., Bahrini, A., Pamucar, D., and Khakbaz, A. (2023). A Systematic Literature Review of MABAC Method and Applications: An Outlook for Sustainability and Circularity. *Informatica*, 1-34,

7. Ranjbarzadeh, R., Ghoushci, S. J., Sarshar, N. T., Tirkolaee, E. B., Ali, S. S., Kumar, T., and Bendechache, M. (2023). ME-CCNN: Multi-Encoded Images and a Cascade Convolutional Neural Network for Breast Tumor Segmentation and Recognition. *Artificial Intelligence Review*, 1-38,

8. Zolfani, S. H., Görçün, Ö. F., Çanakçıoğlu, M., and Tirkolaee, E. B. (2023). Efficiency Analysis Technique with Input and Output Satisficing Approach based on Type-2 Neutrosophic Fuzzy Sets: A Case Study of Container Shipping Companies. *Expert Systems with Applications*, 218, 119596,

9. Su, D., Zhang, L., Peng, H., Saeidi, P., and Tirkolaee, E. B. (2023). Technical challenges of blockchain technology for sustainable manufacturing paradigm in Industry 4.0 era using a fuzzy decision support system. *Technological Forecasting and Social Change*, 188, 122275,

10. Goodarzian, F., Ghasemi, P., Gonzalez, E. S., and Tirkolaee, E. B. (2023). A Sustainable-Circular Citrus Closed-Loop Supply Chain Configuration: Pareto-based Algorithms. *Journal of Environmental Management*, 328, 116892,
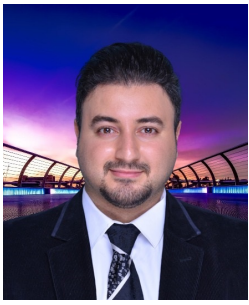
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11. Simić, V., Milovanović, B., Pantelić, S., Pamučar, D., and Tirkolaee, E. B. (2023). Sustainable Route Selection of Petroleum Transportation Using a Type-2 Neutrosophic Number Based ITARA-EDAS Model. *Information Sciences*, 622, 732-754,

12. Simić, V., Senapati, T., Saha, A., Dobrodolac, M., Rong, R., and Tirkolaee, E. B. (2023). Intuitionistic Fuzzy Power Aczel-Alsina Model for Prioritization of Sustainable Transportation Sharing Practices. *Engineering Applications of Artificial Intelligence*, 119, 105716,

13. Ranjbarzadeh, R., Caputo, A., Tirkolaee, E. B., Ghoushci, S. J., and Bendechache, M. (2023). Brain tumor segmentation of MRI images: A comprehensive review on the application of artificial intelligence tools. *Computers in Biology and Medicine*, 152, 106405,

14. Ranjbarzadeh, R., Dorosti, S., Ghoushci, S. J., Caputo, A., Tirkolaee, E. B., Ali, S. S., Arshadi, Z., and Bendechache, M. (2023). a using machine learning techniques: Overview of datasets, findings, and methods. *Computers in Biology and Medicine*, 152, 106443,

15. Khakbaz, A., and Tirkolaee, E. B. (2022). A Mathematical Model to Investigate the Interactive Effects of Important Economic Factors on the Behaviors of Retailers. *Annals of Operations Research*, 1-25,

16. Adabavazeh, N., Nikbakht, M., and Tirkolaee, E. B. (2022). Identifying and Prioritizing Resilient Health System Units to Tackle the COVID-19 Pandemic. *Socio-Economic Planning Sciences*, 101452,

17. Tirkolaee, E. B., Aydin, N.S., and Mahdavi, I. (2022). A hybrid bi-objective Markov chain based optimization model for sustainable aggregate production planning. *IEEE Transactions on Engineering Management*, 1-12,

18. Ranjbarzadeh, R., Ghoushci, S. J., Anari, S., Safavi, S., Sarshar, N. T., Tirkolaee, E. B., and Bendechache, M. (2022). A Deep Learning Approach for Robust, Multi-oriented, and Curved Text Detection. *Cognitive Computation*, 1-13,

19. Ala, A., Simic, V., Pamucar, D., and Tirkolaee, E. B. (2022). Appointment Scheduling Problem under Fairness Policy in Healthcare Services: Fuzzy Ant Lion Optimizer. *Expert Systems with Applications*, 207, 117949,

20. Tirkolaee, E. B., Golpîra, H., Javanmardan, A., and Maihami. R. (2022). A socio-economic optimization model for blood supply chain network design during the COVID-19 pandemic: An interactive possibilistic programming approach for a real case study. *Socio-Economic Planning Sciences*, 101439,

21. Amirteimoori, A., Mahdavi, I., Solimanpur, M., Ali, S. S, and Tirkolaee, E. B. (2022). A parallel hybrid PSO-GA algorithm for the flexible flow-shop scheduling with transportation. *Computers and Industrial Engineering*, 108672,

22. Tirkolaee, E. B., and Torkayesh, A.E. (2022). A Cluster-based Stratified Hybrid Decision Support Model under Uncertainty: Sustainable Healthcare Landfill Location Selection. *Applied Intelligence*, 1-20,

23. Babaei, A., Khedmati, M., Jokar, M.R.A., and Tirkolaee, E.B. (2022). Performance Evaluation of Omni-Channel Distribution Network Configurations considering Green and Transparent Criteria under Uncertainty. *Sustainability*, 14, 12607,

24. Aytekin, A., Okoth, B. O., Korucuk, S., Karamasa, C., and Tirkolaee, E. B. (2022). A neutrosophic approach to evaluate the factors affecting performance and theory of sustainable supply chain management: Application to textile industry. *Management Decision*, 1-24,

25. Darvazeh, S. S., Mooseloo, F. M., Vandchali, H. R., and Tirkolaee, E. B. (2022). An Integrated Methodology for Green Human Resource Management in Construction Industry. *Environmental Science and Pollution Research*, 1-19,

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26. Aydin, N.S., and Tirkolaee, E. B. (2022). A Systematic Review of Aggregate Production Planning Literature with an Outlook for Sustainability and Circularity. *Environment, Development and Sustainability*, 1-42,

27. Darvazeh, S. S., Mooseloo, F. M., Vandchali, H. R., Tomaskova, H., and Tirkolaee, E. B. (2022). An integrated multi-criteria decision-making approach to optimize the number of leagile-sustainable suppliers in supply chains. *Environmental Science and Pollution Research*, 1-23,

28. Ghadir, A. H., Vandchali, H. R., Fallah, M., and Tirkolaee, E. B. (2022). Evaluating the impacts of COVID-19 outbreak on supply chain risks by modified failure mode and effects analysis: A case study in an automotive company. *Annals of Operations Research*, 1-31,

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Best Paper Award - ISI

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