

Berna UZUN, PhD

Address:

Near East University, Operational Research Center in Healthcare, Nicosia, TRNC, Mersin 10
Turkey

Mobile Phone: [REDACTED]

e-mail:

berna.uzun@neu.edu.tr
[REDACTED]

Date of Birth/Place: 20 March, 1987/Adana, Turkey

Language

Turkish (native)

English (fluent in speaking,
writing) Spanish (basic in speaking,
writing)

Education

Ph.D in Econometrics/Operational Research, 09/2015 -20/02/2020. Çukurova University. Faculty of Economics and Administrative Sciences, Department of Econometrics, Adana, 01330, Turkey, thesis title: “Markov Analysis of the Fuzzy States and Its Economic Applications”.

Master of Social Science, Econometrics/Operational Research, 02/2010-21/01/2015. Çukurova University. Faculty of Economics and Administrative Sciences, Department of Econometrics, Adana, 01330, Turkey. Masters' thesis title: “Fuzzy Matrices and Fuzzy Markov Chains”.

Bachelor Science, Mathematics, 02/2005-05/06/2009. Çukurova University, Faculty of Science and Letters, Mathematics Department, 01330, Adana, Turkey.

Current Position

Assoc. Prof. Dr., Apr. 2024-Present, Mathematics Department, Faculty of Arts and Sciences& Board Member of the Operational Research Center in Healthcare, Near East University, Nicosia/TRNC, Mersin-10, Turkey

Job Experiences

- Assist. Prof. Dr., Aug. 2020- Apr. 2024, Mathematics Department, Faculty of Arts and Sciences and Board Member of the Operational Research Center in Healthcare, Near East University, Nicosia/TRNC, Mersin-10, Turkey
- Visiting Assist. Prof. Dr., 11 March. 2022-1 Sep. 2023, Statistics Department, Carlos III University of Madrid, 28903, Madrid, Spain
- Lecturer, Apr. 2017-Present, Mathematics Department, Faculty of Arts and Sciences, Near East University, Nicosia/TRNC, Mersin-10, Turkey
- Sep. 2015-Jun. 2016, Mathematics Teach., Kızılkas Second. Sch.
- Jan. 2015 – Jun. 2015, English Teach., Akkapı A.T. Industrial High Sch. Sep. 2014 –Dec. 2014, Mathematics Teach., Yunusoğlu Second. Sch.
- Feb. 2013 – Jun. 2013, Mathematics Teach., Seyhan Municipality Second. Sch. Dec. 2012, Mathematics Teach., Adana Men High School

Teaching Experience

❖ Graduate (2023-)

Multi Criteria Decision Making Theories for Engineers (for MSc. &PhD)

❖ Undergraduate (2016-)

Precision Techniques
Statistics for Aerospace
Engineering Introduction to
Statistics
Statistics for Social
Science Calculus I-II
Economics for
Engineers Fuzzy Logic
Linear Algebra
Advanced Calculus for
Engineering Numerical Analysis
Statistics I-II
Probability and Statistics
Differential Equations I
Differential Equations II
Complex Analysis
Fundamentals of
Mathematics

Fellowships

1. October 2019-December 2019, Researcher&Technical shifter in CMS experiment, The European Organization for Nuclear Research, 1211 Geneva/Switzerland.
2. September 2013-June 2014, Autonomia de Barcelona University, Physics Institute Executive Assistant, Erasmus Internship Program, Barcelona / Spain.

3. September 2011-June 2012, Lazarski University, Faculty of Economics and Business Administration, Erasmus Education Program, Warsaw / Poland.

Researcher ID and Web Link

Google Scholar: <https://scholar.google.com/citations?user=kzIIg28AAAAJ&hl=en> (h-index:26)
SCOPUS ID: 57200208868, (h-index: 20)

ResearchGate: <https://www.researchgate.net/profile/Berna-Uzun> ORCID: 0000-0002-6828-2185

Publications

1. Emegano, D. I., Mustapha, M. T., Isaac, E. P., Ozsahin, I., Uzun, B., & Ozsahin, D. U. (2026). Predictive modeling of vocal biomarkers for the diagnosis of Parkinson's disease. *Cognitive Neurodynamics*, 20(1), 54. <https://doi.org/10.1007/s11571-026-10426-2>
2. Adebayo, T. S., Razi, U., Usman, O., & Uzun, B. (2026). Clean energy investments in the face of climate change: The synergistic effects of green bonds and energy innovation. *Innovation and Green Development*, 5(2), 100337. <https://doi.org/10.1016/j.igd.2026.100337>
3. Emegano, D. I., Ozsahin, I., Isaac, E. P., Ozsahin, D. U., Silas, O. S., & Emegano, C. L. (2026). Artificial intelligence and diagnosis and management of tuberculosis disease in children. *Current Opinion in Pediatrics*, 38(2), 155–161. <https://doi.org/10.1097/MOP.0000000000001551>
4. Ozsahin, D. U., Emegano, D. I., Uzun, B., & Ozsahin, I. (2026). A detailed review of large language models in the healthcare sector. *Journal of Electrical Systems and Information Technology*, 13(1), 22. <https://doi.org/10.1186/s43067-026-00327-z>
5. Merabtene, T., Usman, A. G., Uzun, B., & Ozsahin, D. U. (2026). Water demand forecasting based on multi-rainfall gauging stations using stand-alone soft computing techniques with improved novel hybrid paradigms. *Water Resources Management*, 40(4), 148. <https://doi.org/10.1007/s11269-025-04362-9>
6. Vishnukumar, K. S., Sivalingam, S. M., Govindaraj, V., Uzun, B., Ozsahin, I., et al. (2026). Controllability of time-varying fractional dynamical systems having multiple delays in control with Caputo fractional derivative. *Fractals*. <https://doi.org/10.1142/S0218348X26400025>
7. Ozsahin, D. U., Emegano, D. I., Mustapha, M. T., Uzun, B., & Ozsahin, I. (2026). Artificial intelligence-assisted diagnosis of prostate cancer based on prostate biopsy. *South African Journal of Science*, 122(1–2), 1–8. <https://doi.org/10.17159/sajs.2026/18193>
8. Wei, Y., Ramzan, M., Awosusi, A. A., Uzun, B., & Khudoykulov, K. (2026). Racing toward attaining sustainable development in India: Probing the asymmetric effect of country risk and coal energy. *Natural Resources Forum*, 50(1), 390–411. <https://doi.org/10.1111/1477-8947.12576>
9. Ender, B., Eweade, B. S., Djafar Henni, M., & Uzun, B. (2026). Industrialization, ICT, and China's environmental transition toward carbon neutrality: Evidence from wavelet cross-quantile regression. *Environmental Sciences Europe*. <https://doi.org/10.1186/s12302-026-01332-9>
10. Awosusi, A. A., Taiwo, T. S., & Uzun, B. (2026). Consolidating sustainable development in G7 economies: The role of green production process, energy transition, environmental policy stringency, and economic globalization. *International Journal of Sustainable Development & World Ecology*, 33(1), 9–28. <https://doi.org/10.1080/13504509.2025.2585489>
11. Adebayo, T. S., Staniewski, M. W., & **Uzun, B.** (2025). Policy implications of technological innovations, domestic material consumption and renewable energy consumption for

achieving sustainable development goals in G7 economies. *International Journal of Sustainable Development & World Ecology*, 1–20.

<https://doi.org/10.1080/13504509.2025.2487793>

12. Sunday Adebayo, T., Abbas, S., Olanrewaju, V. O., & Uzun, B. (2025). Unpacking policy ambiguities in residential and commercial renewable energy adoption: a novel multivariate wavelet quantile regression analysis. *Applied Economics*, 1–22.
<https://doi.org/10.1080/00036846.2025.2590632>
13. Olanrewaju, V. O., Adebayo, T. S., & **Uzun, B.** (2025). Navigating the impact of ESG sustainability uncertainty on fossil fuel prices: Evidence from wavelet cross-quantile regression. *Applied Economics*. <https://doi.org/10.1080/00036846.2025.2535552>
14. Emegano, D.I., Ozsahin, D.U., Uzun, B. et al. The Integration of Virtual Reality (VR), Augmented Reality (AR), and Artificial Intelligence in Revolutionizing Healthcare: A Systematic Review. *Augment Hum Res* **10**, 9 (2025).
<https://doi.org/10.1007/s41133-025-00082-2>.
15. Adebayo, T. S., Ozsahin, D. U., Olanrewaju, V. O., & **Uzun, B.** (2025). Decoding the environmental role of nuclear and renewable energy consumption: A time-frequency perspective. *Annals of Nuclear Energy*, 223, 111660.
<https://doi.org/10.1016/j.anucene.2025.111660>
16. Adebayo, T. S., Özkan, O., Olanrewaju, V. O., & **Uzun, B.** (2025). Do fossil-fuel subsidies, Fintech innovation, and digital ICT transform ecological quality in Turkey? Evidence from modified cross-quantile regression. *Applied Economics*.
<https://doi.org/10.1080/00036846.2025.2520578>
17. Abyo, T. S., Olanrewaju, V. O., & **Uzun, B.** (2025). Safe havens or fragile investments? Navigating sustainable energy assets in times of policy uncertainty. *Investment Analysts Journal*.
18. Alsakarneh, R. A., Mati, S., Ismael, G. Y., Masoud, S., Aliyu, N., Samour, A., & **Uzun, B.** (2025). *Hybrid modelling of ruble exchange rates amidst the Russo-Ukrainian conflict using swarm and fuzzy neural networks. Engineering Applications of Artificial Intelligence*, 153, 110854
19. Arikan, A.; **Uzun, B.**; Sayan, M. Implementation of Multi-Criteria Decision-Making for Selecting Most Effective Genome Sequencing Technology. *Diagnostics* **2025**, 15, 665.
<https://doi.org/10.3390/diagnostics15060665>
20. Olanrewaju, V.O., **Uzun, B.**, Özkan, O., Adebayo, T.S. (2025). Unveiling the environmental impact of total energy-based shadow economy in high-income EU countries, *Sustainable Futures*, Volume 9, 100577, ISSN 2666-1888. <https://doi.org/10.1016/j.sfr.2025.100577>
21. Awosusi, A.A., Ozdeser, H., Seraj, M., **Uzun, B.** Are oil efficiency, hydro energy and environmental related technology solution for attaining carbon neutrality: insight on top energy transition economies?. *Environ Dev Sustain* (2025).
<https://doi.org/10.1007/s10668-025-06126-2>
22. Adebayo, T. S., Olanrewaju, V. O., & **Uzun, B.** (2025). Achieving access to clean fuels and technologies for cooking in rural and urban areas of India: a wavelet quantile-based approach. *Energy Sources, Part B: Economics, Planning, and Policy*, 20(1).
<https://doi.org/10.1080/15567249.2025.2479173>
23. Adebayo, T. S., Olanrewaju, V. O., & **Uzun, B.** (2025). Do energy patents and energy prices drive the shift toward sustainable energy sources? A wavelet quantile-based analysis. *Energy Policy*, 175, 113512.
24. Emegano, D.I., Mustapha, M.T., Ozsahin, D.U. Ozsahin, I., **Uzun, B.** Histopathology-Based Prostate Cancer Classification Using ResNet: A Comprehensive Deep Learning Analysis. *J Digit Imaging. Inform. med.* (2025).
<https://doi.org/10.1007/s10278-025-01543-1>

25. Emegano, D.I.; Mustapha, M.T.; Ozsahin, I.; Ozsahin, D.U.; **Uzun, B.** Advancing Prostate Cancer Diagnostics: A ConvNeXt Approach to Multi-Class Classification in Underrepresented Populations. *Bioengineering* **2025**, *12*, 369. <https://doi.org/10.3390/bioengineering12040369>
26. Emegano, D., Sultanoglu, N., Onakpojeruo, E. P., **Uzun, B.**, Ozsahin, D.U. & Sanlıdag, T. (2025). Evaluating the Latent Tuberculosis Diagnostic Tests Using Fuzzy PROMETHEE: A Multi-Criteria Decision Approach. *Cyprus Journal of Medical Sciences*, 10(Suppl. 1), 55-59.
27. Arıkan, A., **Uzun, B.**, Sayan, M., Uzun Ozsahin, D., & Şanlıdağ, T. (2025). Contribution of multi-criteria decision-making approach in choosing the most appropriate rapid diagnostic tests in an outbreak. *Cyprus Journal of Medical Sciences*, 10(Suppl 1), 60-64. DOI:10.4274/cjms.2025.2024-11761
28. Usanase, N., Ozsahin, D. U., Hussain, A. J., Ozsahin, I., & Uzun, B. (2025). The preference decision analysis on biomedical and food cell preservation techniques. In 2025 18th International Conference on Development in eSystem Engineering (DeSE) (pp. 511–516). IEEE. <https://doi.org/10.1109/DeSE68208.2025.11367961>
29. Emegano, D. I., Ozsahin, D. U., Uzun, B., Ozsahin, I., & Hussain, A. J. (2025). Machine learning prediction for appendicitis: A comprehensive study of blood markers and clinical variables. In 2025 18th International Conference on Development in eSystem Engineering (DeSE) (pp. 124–129). IEEE. <https://doi.org/10.1109/DeSE68208.2025.11367917>
30. Usanase, N., Ozsahin, I., Ozsahin, D. U., Hussain, A. J., & Uzun, B. (2025). The effect of patient, donor, and organ viability features in kidney transplant survival prediction. In 2025 18th International Conference on Development in eSystem Engineering (DeSE) (pp. 130–135). IEEE. <https://doi.org/10.1109/DeSE68208.2025.11367935>
31. Cubukcuoglu, B., Uzun, B., Gokcekus, H., Albarwary, S. A., & Ozsahin, D. U. (2025). The comparative analysis of the effectiveness of the energy resources using fuzzy PROMETHE-TOPSIS method. In 2025 IEEE 22nd International Multi-Conference on Systems, Signals & Devices (SSD) (pp. 191–197). IEEE. <https://doi.org/10.1109/SSD64182.2025.10989935>
32. Farooq, M., Rahman, A. U., Khan, A., Özşahin, İ., **Uzun, B.**, & Ahmad, H. (2025). Comparative Analysis of Magnetohydrodynamic Inclined Poiseuille Flow of Couple Stress Fluids. *Journal of Computational & Applied Mechanics*, 56(3), 536-560.
33. Farooq, M., Nawaz, R., Khan, A., Shahid, F., Özşahin, İlker, **Uzun, B.**, & Ahmad, H. (2025). Comparative Study of Non-Isothermal Poiseuille Flow of Couple Stress Fluid in Reynolds Model Between Inclined Plates Using Two Homotopy-Based Methods. *Journal of Computational & Applied Mechanics*, 56(3), 587-601. DOI:10.22059/jcamech.2025.392399.1415
34. R Uppal et al. (2024). Epidemiological analysis of Leishmaniasis prevalence in Pakistan during 2016-2023, <https://doi.org/10.1590/1519-6984.284742>
35. Erdagli H, Uzun Ozsahin D, **Uzun B** (2024). Evaluation of myocardial perfusion imaging techniques and artificial intelligence (AI) tools in coronary artery disease (CAD) diagnosis through multi-criteria decision-making method. *Cardiovasc Diagn Ther.* 2024 Dec 31;14(6):1134-1147. doi: 10.21037/cdt-24-237. PMID: 39790201; PMCID: PMC11707470.
36. Andrawus, J., Abubakar, A., Yusuf, A., Andrew, A.A., **Uzun, B.** Impact of public awareness on haemo-lyphatic and meningo-encephalitic stage of sleeping sickness using mathematical model approach. *Eur. Phys. J. Spec. Top.* (2024). <https://doi.org/10.1140/epjs/s11734-024-01417-7>
37. Reddy, Y. Madhusudhana, Ganteda, Charankumar, Sreedhar, S., Himabindu, I. B. N., Sulaiman, Tukur Abdulkadir, Obulesu, Mopuri, Yusuf, Abdullahi, Umar, Huzaifa, & **Uzun, B.erna.** (2024). Impact of variable electrical conductivity, viscosity on convective heat and mass transfer flow of CuO- and Al₂O₃-water nanof
38. luids in cylindrical annulus. *Modern Physics Letters B*, 39(09), 2450425. World Scientific

Publishing Co. <https://doi.org/10.1142/S0217984924504256>

39. R Uppal, U Saeed, ME Khattak, AA Khan, MR Uppal, ZZ Piracha, MN Khan, D Shaikh, U Tariq, AR Mahmood, SS Ali, B Muhammad, MN Tariq, SS Gilani, DU Ozsahin, **B Uzun**, I Ozsahin. (2024) 'Epidemiological analysis of leishmaniasis prevalence in Pakistan during 2016-2023', *Brazilian Journal of Biology*, 84. doi:10.1590/1519-6984.284742.
40. Adebayo, T. S., Nwosu, L. C., Alhassan, G. N., **Uzun, B.**, Özkan, O., & Awosusi, A. A. (2024). Effects of health expenditure, death rate, and infant mortality rate on life expectancy: A case study of the United States. *Energy & Environment*, 0(0). <https://doi.org/10.1177/0958305X241281804>
41. Mati, S., Usman, A.G., Civcir, I., Ozsahin, D.U., **Uzun, B.**, Abba, S.I. (2024). DynareR: Harnessing Dynare for Economic Modelling in R, R Markdown and Quarto. *Comput Econ*. <https://doi.org/10.1007/s10614-024-10789-w>
42. Naja, F., Taktouk, M., Matbouli, D., Khaleel, S., Maher, A., **Uzun, B.**, Alameddine, M., Nasreddine, L. Artificial intelligence chatbots for the nutrition management of diabetes and the metabolic syndrome. *Eur J Clin Nutr* (2024). <https://doi.org/10.1038/s41430-024-01476-y>
43. Ozsahin, D.U., Isa, N.A, **Uzun, B.**, Ozsahin I. (2024) 'Quantifying holistic capacity response and healthcare resilience in tackling COVID-19: Assessment of country capacity by MCDM', *PLOS ONE*, 19(4). doi: <https://doi.org/10.1371/journal.pone.0294625>.
44. Ozsahin, D.U., Duwa, B.B., Uzun, B., Musa, M.S., Ozsahin, I. (2024) 'Evaluation of new scintillation crystals with MCDM methods for Brain Pet', *Journal of Instrumentation*, 19(04). doi: <https://doi.org/10.1088/1748-0221/19/04/c04062>.
45. Ozgocmen, C., Balcioglu, O., Uzun, B., Ozsahin D. U. Inotrope Analysis for Acute and Chronic Reduced-EF Heart Failure Using Fuzzy Multi-Criteria Decision Analysis. *Applied Sciences*. 2024; 14(11):4431. <https://doi.org/10.3390/app14114431>
46. Rao, S., Sharan, K., Chandraguthi, S.G., Dsouza, R.N., David, L.R., Ravichandran, S., Mustapha, M.T., Shettigar, D., **Uzun, B.**, Kadavigere, R., Suresh, S., Ozsahin, D.D. Advanced Computational Methods for Radiation Dose Optimization in CT. *Diagnostics* **2024**, 14, 921. <https://doi.org/10.3390/diagnostics14090921>
47. Mati, S., Danbatta, S.J., Varol, A., Nasab, A., Usman, A.G., **Uzun, B.**, Muhammad, A. "Econometric and AI-Based Modelling of Nigeria's Interest Rates Based on Fisher Equation," *2024 12th International Symposium on Digital Forensics and Security (ISDFS)*, San Antonio, TX, USA, 2024, pp. 1-6, doi: <https://doi.org/10.1109/ISDFS60797.2024.10527285>.
48. Usanase, N., **Uzun, B.**, Ozsahin, D.U. *et al.* A look at radiation detectors and their applications in medical imaging. *Jpn J Radiol* **42**, 145–157 (2024). <https://doi.org/10.1007/s11604-023-01486-z>
49. Saeed, U., Uppal, M.R., Uppal, R., Uppal, M.S., Khan, A.A., Mehmood, A., Saleem, H., Alam, M.S., Ozsahin, D.U., Uzun, B. **Uzun, I.**, Piracha Z.Z. (2024) 'Unveiling diagnostic prowess: A Comparative Study of exercise treadmill test and CT coronary in coronary artery disease detection in Pakistan (2021-2023)', *Brazilian Journal of Biology*, 84. doi: <https://doi.org/10.1590/1519-6984.284361>.
50. Abobakr, M.; **Uzun, B.**; Ozsahin, D.U.; Sanlidag, T.; Arikan, A. Assessment of UTI Diagnostic Techniques Using the Fuzzy–PROMETHEE Model. *Diagnostics* **2023**, 13, 3421. <https://doi.org/10.3390/diagnostics13223421>
51. Moro, S.V., **Uzun, B.**, Denker, A., Ozsahin, D.U. (2024) 'Analytical analysis of the assistive devices for the asthma patients', *AIP Conference Proceedings*, 3085, p. 020023. doi: <https://doi.org/10.1063/5.0195102>.

52. Kumar, R., Mehta, R., Bhatnagar, A., Ozsahin, I., **Uzun, B.**, Almohsen, B., Ahmad, H.. Numerical Study of Williamson Fluid Flow over a Stretching Sheet with Newtonian Heating Embedded in a Porous Medium in Presence of Thermal Radiation and Heat Source/Sink. *J Nonlinear Math Phys* **32**, 4 (2025).
<https://doi.org/10.1007/s44198-024-00258-1>
53. D. U. Ozsahin, D. I. Emegano, L. R. David, **B. Uzun** and I. Ozsahin, "Evaluating ELISA for Prostate Cancer Detection: A Hybrid PROMETHEE-TOPSIS Approach Using Prostate-Specific Antigen Levels," *2024 17th International Conference on Development in eSystem Engineering (DeSE)*, Khorfakkan, United Arab Emirates, 2024, pp. 433-438, doi: 10.1109/DeSE63988.2024.10911948.
54. E. P. Onakpojeruo, **B. Uzun**, L. R. David, I. Ozsahin and D. U. Ozsahin, "Selection Techniques in Genetic Algorithm," *2024 17th International Conference on Development in eSystem Engineering (DeSE)*, Khorfakkan, United Arab Emirates, 2024, pp. 411-416, doi: 10.1109/DeSE63988.2024.10912015.
55. D. U. Ozsahin, D. I. Emegano, L. R. David, A. J. Hussain, **B. Uzun** and I. Ozsahin, "Global Life Expectancy Prediction Using Machine Learning Ensemble Techniques," *2024 17th International Conference on Development in eSystem Engineering (DeSE)*, Khorfakkan, United Arab Emirates, 2024, pp. 423-427, doi: 10.1109/DeSE63988.2024.10912031.
56. N. Usanase, **B. Uzun**, L. R. David, D. U. Ozsahin and I. Ozsahin, "A Decision-Making Approach in The Clinical Diagnosis and Treatment of Vulva Cancer," *2024 17th International Conference on Development in eSystem Engineering (DeSE)*, Khorfakkan, United Arab Emirates, 2024, pp. 370-374, doi: 10.1109/DeSE63988.2024.10911949.
57. N. Usanase, **B. Uzun**, L. R. David, D. U. Ozsahin and I. Ozsahin, "Application of Fuzzy PROMETHEE in the Analysis of Childbirth Techniques," *2024 17th International Conference on Development in eSystem Engineering (DeSE)*, Khorfakkan, United Arab Emirates, 2024, pp. 364-369, doi: 10.1109/DeSE63988.2024.10911929.
58. N. Usanase, D. U. Ozsahin, L. R. David, **B. Uzun**, A. J. Hussain and I. Ozsahin, "Deep learning-based CT-scan image classification for accurate detection of pancreatic cancer: A Comparative Study of Different Pre-Trained Models," *2024 17th International Conference on Development in eSystem Engineering (DeSE)*, Khorfakkan, United Arab Emirates, 2024, pp. 358-363, doi: 10.1109/DeSE63988.2024.10912050.
59. N. Usanase *et al.*, "Hybridized Paradigms for The Clinical Prediction of Lung Cancer," *2024 17th International Conference on Development in eSystem Engineering (DeSE)*, Khorfakkan, United Arab Emirates, 2024, pp. 417-422, doi: 10.1109/DeSE63988.2024.10911964.
60. E. P. Onakpojeruo, **B. Uzun**, L. R. David, I. Ozsahin, C. C. Efe and D. U. Ozsahin, "Integrating ANFIS, ANN, & MLR with MCDM for Accurate Prediction of Lung Cancer for Improved Clinical Decision Support," *2024 17th International Conference on Development in eSystem Engineering (DeSE)*, Khorfakkan, United Arab Emirates, 2024, pp. 445-450, doi: 10.1109/DeSE63988.2024.10912008.
61. D. U. Ozsahin, D. I. Emegano, L. R. David, A. J. Hussain, **B. Uzun** and I. Ozsahin, "Machine Learning-Based Predictive Modeling of Mental Health Comorbidities," *2024 17th International Conference on Development in eSystem Engineering (DeSE)*, Khorfakkan, United Arab Emirates, 2024, pp. 428-432, doi: 10.1109/DeSE63988.2024.10911997.
62. E. P. Onakpojeruo, **B. Uzun**, L. R. David, I. Ozsahin, C. C. Efe and D. U. Ozsahin, "Evaluation of Bone Cancer Treatment Techniques," *2024 17th International Conference on*

- Development in eSystem Engineering (DeSE)*, Khorfakkan, United Arab Emirates, 2024, pp. 346-351, doi: 10.1109/DeSE63988.2024.10911950.
63. B. B. Duwa *et al.*, "Ensemble Predictive Modeling for Dementia Diagnosis," *2024 17th International Conference on Development in eSystem Engineering (DeSE)*, Khorfakkan, United Arab Emirates, 2024, pp. 352-357, doi: 10.1109/DeSE63988.2024.10912022.
64. M. T. Mustapha, E. P. Onakpojeruo, L. R. David, **B. Uzun**, A. J. Hussain and D. U. Ozsahin, "Leveraging the Novel MSHA Model: A Focus on Adrenocortical Carcinoma," *2024 17th International Conference on Development in eSystem Engineering (DeSE)*, Khorfakkan, United Arab Emirates, 2024, pp. 399-404, doi: 10.1109/DeSE63988.2024.10912045.
65. Sun, X. Q., Awosusi, A. A., Han, Z., **Uzun, B.**, & Öncü, E. (2023). Racing towards environmental sustainability: a synergy between economic complexity, political stability, and energy transition: policy insight from a bootstrap time varying causality approach. *International Journal of Sustainable Development & World Ecology*, 1-16. <https://doi.org/10.1080/13504509.2023.2268573>
66. Ma, X.; Khan, M.N.; Awosusi, A.A.; **Uzun, B.** & Shamansurova, Z. Heterogeneous impact

of green energy innovation on energy transition in the G7 nations: an aggregated and disintegrated analysis through advanced quantile approach, *International Journal of Sustainable Development & World Ecology*, 2023, DOI: <https://doi.org/10.1080/13504509.2023.2277422>

67. Sukumar, S., Saha, S., Ravichandran, S., **Uzun, B.**, Ozsahin, D., Kadavigere, R., & David, L. R. (2023). Infection Awareness Of Medical Imaging Professional's On The Pandemic Outbreak Of Ebola And Novel Covid-19: A Systematic Narrative Review. *Romanian Journal of Diabetes, Nutrition and Metabolic Diseases*, 30(4), 894-911. <https://jrddiabet.ro/index.php/RJDNMD/article/view/232>
68. Anilkumar, A., Sukumar, S., Dkhar, K. Y. W., **Uzun, B.**, Ozsahin, D. U., David, L. R., ... & Pradhan, A. (2023). Gender Differences in Orbit Index Values In The South Indian Population Using Computed Tomography. *Romanian Journal of Diabetes, Nutrition and Metabolic Diseases*, 30(4), 883-893. <https://jrddiabet.ro/index.php/RJDNMD/article/view/231>
69. Usman, A.G.; Usanase, N.; Abba, S.I.; Ozsahin, I.; **Uzun, B.**; Yassin, M.A.; Rahman, S.M.; Ozsahin, D.U. Environmental modelling of CO concentration using AI-based approach supported with filters feature extraction: A direct and inverse chemometrics-based simulation. *Sustainable Chemistry for the Environment*, Volume 2, 2023, 100011, ISSN 2949-8392, <https://doi.org/10.1016/j.scenv.2023.100011>.
70. Ozsahin, I.; Onakpojeruo, E.P.; **Uzun, B.**; Ozsahin, D.U.; Butler, T.A. A Multi- Criteria Decision Aid Tool for Radiopharmaceutical Selection in Tau PET Imaging. *Pharmaceutics* **2023**, *15*, 1304. <https://doi.org/10.3390/pharmaceutics15041304>
71. O. Balcioglu, D. Ikechukwu Emegano, **B. Uzun**, T. Şahin, I. Ozsahin and D. Uzun Ozsahin, "Comparative evaluation of blood conservation techniques in cardiovascular surgery using multicriteria decision-making methods," *2023 Advances in Science and Engineering Technology International Conferences (ASET)*, Dubai, United Arab Emirates, 2023, pp. 1- 8, doi: <https://doi.org/10.1109/ASET56582.2023.10180430>.
72. D. U. Ozsahin, E. P. Onakpojeruo, **B. Uzun** and I. Ozsahin, "Selection Methods for the Treatment of Spinal Cord Tumors Using Analytical Evaluation Models," *2023 Advances in Science and Engineering Technology International Conferences (ASET)*, Dubai, United Arab Emirates, 2023, pp. 01-07, doi: <https://doi.org/10.1109/ASET56582.2023.10180782>.
73. D. U. Ozsahin, E. P. Onakpojeruo, B. B. Duwa, **B. Uzun**, I. Ozsahin and E. C. Chioma, "Comparative Evaluation of 3D Filaments Used in Additive Manufacturing of Biomedical Tools; Using Fuzzy PROMETHEE," *2023 Advances in Science and Engineering Technology International Conferences (ASET)*, Dubai, United Arab Emirates, 2023, pp. 1-7, doi: <https://doi.org/10.1109/ASET56582.2023.10180544>.
74. D. Uzun Ozsahin, E. Precious Onakpojeruo and **B. Uzun**, "Hydrogel-Based Drug Delivery Nanoparticles with Conventional Treatment Approaches for Cancer Tumors; A Comparative Study Using MCDM Technique," *2023 Advances in Science and Engineering Technology International Conferences (ASET)*, Dubai, United Arab Emirates, 2023, pp. 1-9, doi: <https://doi.org/10.1109/ASET56582.2023.10180659>.
75. D. U. Ozsahin, N. Usanase, **B. Uzun**, I. Ozsahin and O. Balcioglu, "The Efficacy and Safety of Direct Oral Anticoagulants for The Treatment of Venous Thrombosis in Cancer Using Fuzzy PROMETHEE," *2023 Advances in Science and Engineering Technology International Conferences (ASET)*, Dubai, United Arab Emirates, 2023, pp. 1-5, doi: <https://doi.org/10.1109/ASET56582.2023.10180505>.

76. S. Dube, **B. Uzun**, L. R. David, D. U. Ozsahin and M. Yuvali, "Evaluating Different Types of Treatment for Osteoporosis Using Fuzzy PROMETHEE," *2023 Advances in Science and Engineering Technology International Conferences (ASET)*, Dubai, United Arab Emirates, 2023, pp. 1-7, doi: <https://doi.org/10.1109/ASET56582.2023.10180646>.
77. Uzun Ozsahin, D.; Precious Onakpojeruo, E.; Bartholomew Duwa, B.; Usman, A.G.; Isah Abba, S.; **Uzun, B.** COVID-19 Prediction Using Black-Box Based Pearson Correlation Approach. *Diagnostics* **2023**, *13*, 1264. <https://doi.org/10.3390/diagnostics13071264>
78. Uzun Ozsahin, D.; Onakpojeruo, E.P.; **Uzun, B.**; Mustapha, M.T.; Ozsahin, I. Mathematical Assessment of Machine Learning Models Used for Brain Tumor Diagnosis. *Diagnostics* **2023**, *13*, 618. <https://doi.org/10.3390/diagnostics13040618>
79. Ozsahin, D.U.; Mustapha, M.T.; **Uzun, B.**; Duwa, B.; Ozsahin, I. Computer-Aided Detection and Classification of Monkeypox and Chickenpox Lesion in Human Subject Using Deep Learning Framework. *Diagnostics* **2023**, *13*, 292. <https://doi.org/10.3390/diagnostics13020292>
80. Rao, S.; Sharan, K.; Sukumar, S.; Chandraguthi, S.G.; Nisha Dsouza, R.; David, L.R.; Ravichandran, S.; Uzun, B.; Kadavigere, R.; Uzun Ozsahin, D. Systematic Review on Diagnostic Reference Levels for Computed Tomography Examinations in Radiation Therapy Planning. *Diagnostics* **2023**, *13*, 1072. <https://doi.org/10.3390/diagnostics13061072>
81. Ozsahin, D.U.; Ikechukwu Emegano, D.; **Uzun, B.**; Ozsahin, I. The Systematic Review of Artificial Intelligence Applications in Breast Cancer Diagnosis. *Diagnostics* **2023**, *13*, 45. <https://doi.org/10.3390/diagnostics13010045>
82. Ozsahin, D.U.; Ozgocmen, C.; Balcioglu, O.; Ozsahin, I.; **Uzun, B.**, "Diagnostic AI and Cardiac Diseases" 2022 *Diagnostics*, *12*, 2901. <https://doi.org/10.3390/diagnostics12122901>
83. Ozsahin D.U.; Isa N.A.; **Uzun B.** "The Capacity of Artificial Intelligence in COVID-19 Response: A Review in Context of COVID-19 Screening and Diagnosis" 15. 2022. *Diagnostics*; *12*(12):2943. <https://doi.org/10.3390/diagnostics12122943>
84. Ozsahin, D.U.; Isa, N.A.; **Uzun, B.**, "The Capacity of Artificial Intelligence in COVID- Response: A Review in Context of COVID-19 Screening and Diagnosis", 2022 *Diagnostics* , *12*, 2943. <https://doi.org/10.3390/diagnostics12122943>
85. Arikan, A., Sanlidag, T., Sayan, M., **Uzun, B.** and Uzun Ozsahin, D., "Fuzzy-Based PROMETHEE Method for Performance Ranking of SARS-CoV-2 IgM Antibody Tests" 2022 *Diagnostics* *12*, no. 11: 2830. <https://doi.org/10.3390/diagnostics12112830>
86. Tuncyurek, O., Kadam, K., **Uzun, B.**, Uzun Ozsahin, D., "Applicability of American College of Radiology Appropriateness Criteria Decision-Making Model for Acute Appendicitis Diagnosis in Children" **2022** *Diagnostics*, *12*, 2915. <https://doi.org/10.3390/diagnostics12122915>
87. Ozsahin, **B. Uzun**, D. U. Ozsahin, "Selection of photodetectors in nuclear medical imaging using MCDM methods ", 2022 *JINST* *17* C06003. <https://doi.org/10.1088/1748-0221/17/06/C06003>
88. Mustapha, M., Ozsahin, D., Ozsahin, I., & **Uzun, B.** (2022). Breast Cancer Screening Based on Supervised Learning and Multi-Criteria Decision-Making. *Diagnostics*, *12*(6), 1326. doi:

<https://doi.org/10.3390/diagnostics12061326>

89. N. Usanase, **B. Uzun**, I. Ozsahin and D. U. Ozsahin, "The preference ranking of gold

- nanoparticle synthesis methods using a multi-criteria decision-making model," The 3rd International Conference on Distributed Sensing and Intelligent Systems (ICDSIS 2022), IET, 2022, pp. 314-320, doi: <https://doi.org/10.1049/icp.2022.2481>.
90. O. Balcioglu, U. Ozad, **B. Uzun**, I. Ozsahin and D. U. Ozsahin, "A decision-making model for treatment alternatives of different clinical abdominal aortic aneurysm presentations," The 3rd International Conference on Distributed Sensing and Intelligent Systems (ICDSIS 2022), IET, 2022, pp. 272-281, doi: <https://doi.org/10.1049/icp.2022.2477>
 91. O. Balcioglu, O., Usanase, N., Uzun, B., Ozsahin, I., Uzun Ozsahin, D., "A comparative analysis of DOACs Vs warfarin for venous thromboembolism treatment in renal insufficiency", Turkish Journal of Vascular Surgery, 2022, doi: <https://doi.org/10.9739/tjvs.2022.09.018>, pp.1-9, Effect Publishing Agency.
 92. D. U. Ozsahin, M. Taiwo Mustapha, A. S. Mubarak, Z. Said Ameen and **B. Uzun**, "Impact of feature scaling on machine learning models for the diagnosis of diabetes," 2022 *International Conference on Artificial Intelligence in Everything (AIE)*, 2022, pp. 87-94, doi: <https://doi.org/10.1109/AIE57029.2022.00024>.
 93. D. Uzun Ozsahin, M. Taiwo Mustapha, A. Saleh Mubarak, Z. Said Ameen and **B. Uzun**, "Impact of Outliers and Dimensionality Reduction on the Performance of Predictive Models for Medical Disease Diagnosis" 2022 *International Conference on Artificial Intelligence in Everything (AIE)*, 2022, pp. 79-86, doi: <https://doi.org/10.1109/AIE57029.2022.00023>.
 94. Balcioglu, O., Usanase, N., Uzun, B., Ozsahin, I., Uzun Ozsahin, D., "A comparative analysis of DOACs Vs warfarin for venous thromboembolism treatment in renal insufficiency", Turkish Journal of Vascular Surgery, 2022, <https://doi.org/10.9739/tjvs.2022.09.018>, pp.1-9, Effect Publishing Agency.
 95. B. Baddal, D. U. Ozsahin, **B. Uzun** and T. Sanlidag, "Evaluation of the Effectiveness of Double Border-Screening Strategy with and without Quarantine in the Prevention of COVID-19," 2022 *Advances in Science and Engineering Technology International Conferences (ASET)*, 2022, pp. 1-4, doi: <https://doi.org/10.1109/ASET53988.2022.9734928> (WOS/Scopus)
 96. H. Gökçekuş, N. Ghaboun, **B. Uzun** and D. U. Ozsahin, "Evaluation of Construction Materials Waste Disposal Methods using Multi Criteria Decision Analysis," 2022 *Advances in Science and Engineering Technology International Conferences (ASET)*, 2022, pp. 1-5, doi: <https://doi.org/10.1109/ASET53988.2022.9734964>. (WOS/Scopus)
 97. Q. A. Alyazji, D. Uzun Ozsahin, **B. Uzun** and I. Ozsahin, "Evaluating electronic blood pressure measurement devices with fuzzy TOPSIS technique," 2022 *Advances in Science and Engineering Technology International Conferences (ASET)*, 2022, pp. 1-5, doi: <https://doi.org/10.1109/ASET53988.2022.9735025>. (WOS/Scopus)
 98. M. T. Mustapha, D. Uzun Ozsahin, **B. Uzun** and I. Ozsahin, "Evaluation of the Thyroid Cancer Treatment Techniques with Fuzzy VIKOR," 2022 *Advances in Science and Engineering Technology International Conferences (ASET)*, 2022, pp. 1-5, doi: <https://doi.org/10.1109/ASET53988.2022.9735083>. (WOS/Scopus)
 99. H. Gökçekuş, N. Ghaboun, D. U. Ozsahin and **B. Uzun**, "Evaluation of Cement Manufacturing Methods Using Multi Criteria Decision Analysis (MCDA)," 2021 *14th International Conference on Developments in eSystems Engineering (DeSE)*, 2021, pp. 39-43, doi: <https://doi.org/10.1109/DeSE54285.2021.9719399>. (WOS/Scopus)
 100. D. U. Ozsahin, A. Arikan, T. Sanlidag, M. Sayan and **B. Uzun**, "Performance Ranking of Diagnostic SARS-CoV-2 IgG Antibody Tests by Using Multi-Criteria Decision-Making Theory," 2021 *14th International Conference on Developments in eSystems Engineering (DeSE)*, 2021, pp. 202-205, doi: 10.1109/DeSE54285.2021.9719417. (WOS/Scopus)
 101. **Uzun, B.**, Uzun Ozsahin, D., Hamdan, H., Charafeddine, J., Ünsal, G., Ozyer, D., 2021. Optimization of Dental Devices and Tools Used on Teeth. BioMed Research International,

102. Alyousifi, Y., Kiral, E., **Uzun, B.**, Kamarulzaman, I. 2021. New Application of Fuzzy Markov Chain Modeling for Air Pollution Index Estimation. *Water Air Soil Pollution* 232, 276. <https://doi.org/10.1007/s11270-021-05172-6>, (SCI)
103. Ozsahin, D., Gelisen, M., Taiwo, M., Agachan, Y., Rahi, D. and Uzun, B., 2021. Decision Analysis of the COVID-19 Vaccines. *The EuroBiotech Journal*, 5(s1), pp.20-2, (E-SCI), <https://doi.org/10.2478/ebtj-2021-0017>
104. Baddal, B., Sanlidag, T., **Uzun, B.** and Uzun Ozsahin, D., 2021. The use of double border- screening strategy in the surveillance and prevention of COVID-19. *Journal of Infection and Public Health*, (SCI-E), <https://doi.org/10.1016/j.jiph.2021.03.012>
105. Gokçekuş, H., Uzun Ozsahin, D., Eini, N. and **Uzun, B.**, 2021. Evaluating and selecting the best domestic water standards. *Desalination and Water Treatment*, 215, pp.380-387, (SCI), <https://doi.org/10.5004/dwt.2021.26561>
106. Yildirim, F., Sayan, M., Sanlidag, T., **Uzun, B.**, Ozsahin, D. and Ozsahin, I., 2021. Comparative Evaluation of the Treatment of COVID-19 with Multicriteria Decision- Making Techniques. *Journal of Healthcare Engineering*, 2021, pp.1-11, (SCI-E), <https://doi.org/10.1155/2021/8864522>
107. Sayan, M., Sarigul Yildirim, F., Sanlidag, T., **Uzun, B.**, Uzun Ozsahin, D. and Ozsahin, I., 2020. Capacity Evaluation of Diagnostic Tests For COVID-19 Using Multicriteria Decision-Making Techniques. *Computational and Mathematical Methods in Medicine*, 2020, pp.1-8, (SCI-E), <https://doi.org/10.1155/2020/1560250>
108. Erdagli, H., Uzun Ozsahin, D., **Uzun, B.**, Evaluation and simulation of breast cancer imaging devices using multi-criteria decision theory, 2020 *JINST* **15** C05029, (SCI-E), <https://doi.org/10.1088/1748-0221/15/05/C05029>
109. Gökçekuş, H., Kiral, E., Kiral, G., Eini, N., **Uzun, B.**, Analysis and prediction of annual precipitation values in Cyprus, *Desalination and Water Treatment* 2020, doi: <https://doi.org/10.5004/dwt.2020.25088>, (SCI-E).
110. Gelete, G., Gokcekus, H., Uzun Ozsahin, D., **Uzun, B.**, Gichamo, T., Evaluating disinfection techniques of water treatment, *Desalination and Water Treatment* 2020, doi: <https://doi.org/10.5004/dwt.2020.25070>, (SCI-E).
111. Gichamo, T., Gokcekus, H., Uzun Ozsahin, D., Gelete, G., **Uzun, B.**, Evaluation of different natural wastewater treatment alternatives by fuzzy PROMETHEE method, *Desalination and Water Treatment* 2020, <https://doi.org/10.5004/dwt.2020.25049>, (SCI-E).
112. Yahya, M.N., Gokcekus, H., Uzun Ozsahin, D., **Uzun, B.**, Evaluation of wastewater treatment technologies using TOPSIS, *Desalination and Water Treatment* 2020, (SCI-E), <https://doi.org/10.5004/dwt.2020.25172>
113. **Uzun, B.**, Sarigül Yıldırım, F., Sayan, M., Şanlıdağ, T., Uzun Ozsahin, D., The Use of Fuzzy PROMETHEE Technique in Antiretroviral Combination Decision in Pediatric HIV Treatments, 2019 *Advances in Science and Engineering Technology International Conferences (ASET) IEEE Xplore*, 2019, (WOS/Scopus), <https://doi.org/10.1109/ICASET.2019.8714389>
114. Sayan, M., Sultanoglu, N., **Uzun, B.**, Sarigül Yıldırım, F., Şanlıdağ, T., Uzun Ozsahin, D., Determination of Post-Exposure Prophylaxis Regimen in the Prevention of Potential Pediatric HIV-1 Infection by the Multi-criteria Decision Making Theory, 2019 *Advances in Science and Engineering Technology International Conferences (ASET) IEEE Xplore*, 2019, (WOS/Scopus) <https://doi.org/10.1109/ICASET.2019.8714442>
115. Sultanoglu, N., **Uzun, B.**, Sarigül Yıldırım, F., Sayan, M., Şanlıdağ, T., Uzun Ozsahin,

- D., Selection of the Most Appropriate Antiretroviral Medication in Determined Aged Groups (≥ 3 years) of HIV-1 Infected Children, 2019 Advances in Science and Engineering Technology International Conferences (ASET) IEEE Xplore, 2019, (WOS/Scopus) <https://doi.org/10.1109/ICASET.2019.8714457>
116. Uzun Ozsahin, D., Ozsahin, I., **Uzun, B.**, Abdulhaqq Isa, N., Mok, G.S.P., Comparative Analysis of the Common Scintillation Crystals Used in Nuclear Medicine Imaging Devices, 2018 IEEE Nuclear Science Symposium and Medical Imaging Conference Proceedings (NSS/MIC), IEEE XPLORE, 2019, (WOS/Scopus) <https://doi.org/10.1109/NSSMIC.2018.8824485>
 117. Ozsahin, I., Sharif, T., Uzun Ozsahin, D., **Uzun, B.**, Evaluation of solid state detectors in medical imaging with fuzzy PROMETHEE, Journal of Instrumentation 14, 2019, (SCI- E) <https://doi.org/10.1088/1748-0221/14/01/C01019>
 118. Maisaini, M., **Uzun, B.**, Ozsahin, I., Uzun, D., Evaluating Lung Cancer Treatment Techniques Using Fuzzy PROMETHEE Approach, Advances in Intelligent Systems and Computing, 896, Springer, Cham, 386-391, 2018, (WOS/Scopus) https://doi.org/10.1007/978-3-030-04164-9_29
 119. **Uzun, B.**, Kiral, E., Evaluating US Dollar Index Movements Using Markov Chains-Fuzzy States Approach, Advances in Intelligent Systems and Computing, 896, Springer, Cham, 209-215, 2018, (WOS/Scopus) https://doi.org/10.1007/978-3-030-04164-9_51
 120. Uzun Ozsahin, D., **Uzun, B.**, Ilker Ozsahin, Effective Analysis of Image Reconstruction Algorithms in Nuclear Medicine Using Fuzzy PROMETHEE, IEEE Xplore 2018, (WOS/Scopus) <https://doi.org/10.1109/ICASET.2018.8376892>
 121. Uzun Ozsahin, D., **Uzun, B.**, Sani Musa, M., Ozsahin, I., Evaluating X-Ray based Medical Imaging Devices with Fuzzy Preference Ranking Organization Method for Enrichment Evaluations, International Journal of Advanced Computer Science and Applications, Volume 9 Issue 3, 2018, (WOS/Scopus), <https://doi.org/10.14569/IJACSA.2018.090302>
 122. Uzun Ozsahin, D., **Uzun, B.**, Sani Musa, M., Şentürk, N., Nurçin, F.V., Ozsahin, I., Evaluating nuclear medicine imaging devices using fuzzy PROMETHEE method, Procedia Computer Science 120, 699-705, 2017, (WOS/Scopus), <https://doi.org/10.1016/j.procs.2017.11.298>
 123. **Uzun, B.**, Kiral, E., Application of Markov chains-fuzzy states to gold price, Procedia Computer Science 120, 365-371, 2017, (WOS/Scopus), <https://doi.org/10.1016/j.procs.2017.11.251>
 124. Uzun Ozsahin, D., **Uzun, B.**, Sani Musa, M., Helwan, A., Nwekwo Wilson, C., Nurçin, F.V., Şentürk, N., Ozsahin, I., Evaluating Cancer Treatment Alternatives using Fuzzy PROMETHEE Method, International Journal of Advanced Computer Science & Applications, Vol. 8, No. 10, 177-182, 2017, (WOS/Scopus), <https://doi.org/10.14569/IJACSA.2017.081024>
 125. Gökçe, B., Altıparmak, H., **Uzun, B.**, Uzun Ozsahin, D., The Effect of Work Safety on Stress in Nursing, The International Journal of Social Sciences and Humanities Invention, Volume 4, Issue 7, 3645-3656, 2017, (ISI).
 126. Kiral, E., **Uzun, B.**, Forecasting Closing Returns of Borsa Istanbul Index with Markov Chain Process of the Fuzzy States, Journal of Economics Finance and Accounting Volume 4, Issue 1, 15-24, 2017, (ISI), <https://doi.org/10.17261/Pressacademia.2017.362>

Book Chapters:

1. Ozsahin, D.U., Usanase, N., **Uzun, B.**, Ozsahin, I. Optimizing Melanoma Therapy Decision-Making with a Multi-criteria Analytical Approach, ICAFS, Lecture Notes in Networks

and Systems, Vol. 1141, 11/2024, Springer, Cham.

2. Ozsahin, D.U., Emegano, D.I., **Uzun, B.**, Ozsahin, I. (2025). Machine Learning Approaches for River Discharge Prediction Using Acoustic Doppler Current Profiler (ADCP) Data. In: Gökçekuş, H., Kassem, Y. (eds) Climate Change and Water Resources in Mediterranean

Countries. WPMC 2023. Environmental Earth Sciences. Springer, Cham.
https://doi.org/10.1007/978-3-031-65960-7_15

3. Mubarak, A.S., **Uzun, B.**, Ameen, Z.S., Ozsahin, D.U., Abba, S.I., Yakub, M.L. (2025). Prediction of Chemical Oxygen Demand in New Nicosia Waste Water Treatment Plant Using Hybrid Metro-Environmental Data. In: Gökçekuş, H., Kassem, Y. (eds) Climate Change and Water Resources in Mediterranean Countries. WPMC 2023. Environmental Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-031-65960-7_31
4. Ameen, Z.S., **Uzun, B.**, Mubarak, A.S., Ozsahin, D.U., Abba, S.I., Yakub, M.L. (2025). Estimating Biochemical Oxygen Demand Using Hybrid Metro-Environmental Data at the New Nicosia Waste Water Treatment Plant. In: Gökçekuş, H., Kassem, Y. (eds) Climate Change and Water Resources in Mediterranean Countries. WPMC 2023. Environmental Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-031-65960-7_32
5. Ozsahin, D.U., Ameen, Z.S., **Uzun, B.**, Mubarak, A.S., Abba, S.I., Lawal, S.M. (2025). Effects of Hybrid Metrological and Environmental Data for the Prediction of Chemical Oxygen Demand in Waste Water Treatment Plant Using Explainable AI Models. In: Gökçekuş, H., Kassem, Y. (eds) Climate Change and Water Resources in Mediterranean Countries. WPMC 2023. Environmental Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-031-65960-7_33
6. Ozsahin, D.U., Emegano, D.I., Uzun, B., Ozsahin, I. (2025). Predictive Modeling of Groundwater Contaminant Transport: Integrating Environmental Factors and Hydrochemical Parameters. In: Gökçekuş, H., Kassem, Y. (eds) Climate Change and Water Resources in Mediterranean Countries. WPMC 2023. Environmental Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-031-65960-7_18
7. Ozverel, C.S., **Uzun, B.**, Sultanoglu, N., Mustapha, M.T., Bagkur, C., Uzun Ozsahin, D., Sanlidag, T. (2024). Ranking the Infection Risks of RNA Viruses with the Fuzzy PROMETHEE Method. In: Aljawarneh, Y.M., Seboussi, R., Blatch, G.L. (eds) Advancements in Health Sciences. ICAHS 2023. Springer, Cham. https://doi.org/10.1007/978-3-031-57773-4_8
8. Ozsahin, I., **Uzun, B.**, Mustapha, M.T., Usanese, N., Yuvali, M., Ozsahin, D.U., Chapter 8 - BI-RADS-based classification of breast cancer mammogram dataset using six stand-alone machine learning algorithms, Editor(s): Walid A. Zgallai, Dilber Uzun Ozsahin, In Developments in Biomedical Engineering and Bioelectronics, Artificial Intelligence and Image Processing in Medical Imaging, Academic Press, 2024, Pages 195-216, ISBN 9780323954624, <https://doi.org/10.1016/B978-0-323-95462-4.00008-X>.
9. Ozsahin, I., Usanase, N., **Uzun, B.**, Ozsahin, D.U., Mustapha, M.T., Chapter 7 - A mathematical resolution in selecting suitable magnetic field-based breast cancer imaging modality: a comparative study on seven diagnostic techniques, Editor(s): Walid A. Zgallai, Dilber Uzun Ozsahin, In Developments in Biomedical Engineering and Bioelectronics,

Artificial Intelligence and Image Processing in Medical Imaging, Academic Press, 2024, Pages 173-194, ISBN 9780323954624, <https://doi.org/10.1016/B978-0-323-95462-4.00007-8>.

10. Duwa, B.B., Kibarar, A., **Uzun, B.**, Kaba, Ş., Ozsahin, D.U. (2023). Evaluation of

Techniques Used in Phenol Removal from Wastewater Using Fuzzy PROMETHEE Method. In: Aliev, R.A., Kacprzyk, J., Pedrycz, W., Jamshidi, M., Babanli, M.B., Sadikoglu, F. (eds) 15th International Conference on Applications of Fuzzy Systems, Soft Computing and Artificial Intelligence Tools – ICAFS-2022. ICAFS 2022. Lecture Notes in Networks and Systems, vol 610. Springer, Cham. https://doi.org/10.1007/978-3-031-25252-5_40

11. Ghaboun, N., Gökçekuş, H., **Uzun, B.**, Ozsahin, D.U. (2022). Sorting Greenhouse Gases Based on Human and Environmental Impacts Using (MCDA). In: Gökçekuş, H., Kassem, Y. (eds) Climate Change, Natural Resources and Sustainable Environmental Management. NRSEM 2021. Environmental Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-031-04375-8_32
12. Ozsahin, D.U., Mustapha, M.T., **Uzun, B.** (2022). Theoretical Aspect of Decision Analysis. In: Uzun Ozsahin, D., Uzun, B., Sanlidag, T., LaMoreaux, J. (eds) Decision Analysis Applied to the Field of Environmental Health. Professional Practice in Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-96682-9_2
13. Ozsahin, D.U., Duwa, B.B., Mustapha, M.T., **Uzun, B.** (2022). Introduction. In: Uzun Ozsahin, D., Uzun, B., Sanlidag, T., LaMoreaux, J. (eds) Decision Analysis Applied to the Field of Environmental Health. Professional Practice in Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-96682-9_1
14. Iravanian, A., Al-Dubai, S.Y., **Uzun, B.**, Ozsahin, D.U. (2022). Investigating the Effect of Quarry Dust Enhancement on Engineering Behavior of Expansive Soil Using MCDM. In: Uzun Ozsahin, D., Uzun, B., Sanlidag, T., LaMoreaux, J. (eds) Decision Analysis Applied to the Field of Environmental Health. Professional Practice in Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-96682-9_3
15. Syidanova, A., Gokcekus, H., **Uzun, B.**, Ozsahin, D.U. (2022). Superior Types of Bamboo inHealthcare Using with Fuzzy PROMETHEE. In: Uzun Ozsahin, D., Uzun, B., Sanlidag, T., LaMoreaux, J. (eds) Decision Analysis Applied to the Field of Environmental Health. Professional Practice in Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-96682-9_4
16. Alas, M., Ozsahin, D.U., Gokcekus, H., **Uzun, B.**, Albrka, S.I. (2022). Environmental ImpactAssessment for the Production of Aggregates Used in the Construction Industry by Using MCDA. In: Uzun Ozsahin, D., Uzun, B., Sanlidag, T., LaMoreaux, J. (eds) Decision Analysis Applied to the Field of Environmental Health. Professional Practice in Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-96682-9_7
17. Muriel, F.F.Y., Ozsahin, D.U., **Uzun, B.** (2022). Performance Evaluation of the Petrol Production Methods in Bakken Reservoirs. In: Uzun Ozsahin, D., Uzun, B., Sanlidag, T., LaMoreaux, J. (eds) Decision Analysis Applied to the Field of Environmental Health. Professional Practice in Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-96682-9_13
18. Altamimi, S., Onur, Z.Ü., Ozsahin, D.U., **Uzun, B.** (2022). Socio-spatial Interactions Within Modern Workspace Interiors Post Covid-19. In: Uzun Ozsahin, D., Uzun, B., Sanlidag, T., LaMoreaux, J. (eds) Decision Analysis Applied to the Field of Environmental Health. Professional Practice in Earth Sciences. Springer, Cham.

<https://doi.org/10.1007/978-3->

19. Uzun Ozsahin D., **Uzun B.**, Syidanova A., Mustapha M.T. (2021) Introduction. In: Uzun Ozsahin D., Gökçekuş H., Uzun B., LaMoreaux J. (eds) Application of Multi-Criteria Decision Analysis in Environmental and Civil Engineering. Professional Practice in Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-64765-0_1

20. **Uzun B.**, Uzun Ozsahin D., Duwa B. (2021) Theoretical Aspects of Multi-criteria Decision- Making (MCDM) Methods. In: Uzun Ozsahin D., Gökçekuş H., Uzun B., LaMoreaux J. (eds) Application of Multi-Criteria Decision Analysis in Environmental and Civil Engineering. Professional Practice in Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-64765-0_2
21. Uzun Ozsahin D., Ahmed M., Uzun B. (2021) Analytical Hierarchy Process (AHP). In: UzunOzsahin D., Gökçekuş H., **Uzun B.**, LaMoreaux J. (eds) Application of Multi-Criteria Decision Analysis in Environmental and Civil Engineering. Professional Practice in Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-64765-0_3
22. Uzun B., Taiwo M., Syidanova A., Uzun Ozsahin D. (2021) The Technique For Order of Preference by Similarity to Ideal Solution (TOPSIS). In: Uzun Ozsahin D., Gökçekuş H., **Uzun B.**, LaMoreaux J. (eds) Application of Multi-Criteria Decision Analysis in Environmental and Civil Engineering. Professional Practice in Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-64765-0_4
23. **Uzun B.**, Bwiza R.A., Uzun Ozsahin D. (2021) ELimination Et Choix Traduisant La Realité (ELECTRE). In: Uzun Ozsahin D., Gökçekuş H., Uzun B., LaMoreaux J. (eds) Application of Multi-Criteria Decision Analysis in Environmental and Civil Engineering. Professional Practice in Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-64765-0_5
24. **Uzun B.**, Almasri A., Uzun Ozsahin D. (2021) Preference Ranking Organization Method for Enrichment Evaluation (Promethee). In: Uzun Ozsahin D., Gökçekuş H., Uzun B., LaMoreaux J. (eds) Application of Multi-Criteria Decision Analysis in Environmental and Civil Engineering. Professional Practice in Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-64765-0_6
25. **Uzun B.**, Uzun Ozsahin D. (2021) Vlse Criterion Optimization and Compromise Solution in Serbian (VIKOR). In: Uzun Ozsahin D., Gökçekuş H., Uzun B., LaMoreaux J. (eds) Application of Multi-Criteria Decision Analysis in Environmental and Civil Engineering. Professional Practice in Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-64765-0_7
26. **Uzun B.**, Uzun Ozsahin D., Duwa B. (2021) Fuzzy Logic and Fuzzy Based Multi Criteria Decision Analysis. In: Uzun Ozsahin D., Gökçekuş H., Uzun B., LaMoreaux J. (eds) Application of Multi-Criteria Decision Analysis in Environmental and Civil Engineering. Professional Practice in Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-64765-0_8
27. Gichamo T., Gökçekuş H., Uzun Ozsahin D., Gelete G., **Uzun B.** (2021) Ranking of Natural Wastewater Treatment Techniques by Multi-criteria Decision Making (MCDM) Methods. In:Uzun Ozsahin D., Gökçekuş H., Uzun B., LaMoreaux J. (eds) Application of Multi- Criteria Decision Analysis in Environmental and Civil Engineering. Professional Practice in Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-64765-0_11
28. Gelete G., Gökçekuş H., **Uzun B.**, Uzun Ozsahin D., Gichamo T. (2021) Evaluating Disinfection Techniques of Water Treatment Using Multi-criteria Decision-Making Method. In: Uzun Ozsahin D., Gökçekuş H., Uzun B., LaMoreaux J. (eds) Application of Multi- Criteria Decision Analysis in Environmental and Civil Engineering. Professional Practice in Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-64765-0_12
29. Aşıksoy G., **Uzun B.**, Uzun Ozsahin D. (2021) Evaluation of the Learning Models Using Multi-criteria Decision Making Theory. In: Uzun Ozsahin D., Gökçekuş H., Uzun B., LaMoreaux J. (eds) Application of Multi-Criteria Decision Analysis in Environmental and

30. Civil Engineering. Professional Practice in Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-64765-0_13
31. Almuhsen M., Gökçekuş H., **Uzun B.**, Uzun Ozsahin D. (2021) Selecting the Best Public– Private Partnership Contract by Using the Fuzzy Method. In: Uzun Ozsahin D., Gökçekuş H., Uzun B., LaMoreaux J. (eds) Application of Multi-Criteria Decision Analysis in Environmental and Civil Engineering. Professional Practice in Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-64765-0_15
32. Yahya M.N., Usman I.M.T., Gökçekuş H., Uzun Ozsahin D., **Uzun B.** (2021) Comparative Analysis for Irrigation Water Application Methods Using TOPSIS. In: Uzun Ozsahin D., Gökçekuş H., Uzun B., LaMoreaux J. (eds) Application of Multi-Criteria Decision Analysis in Environmental and Civil Engineering. Professional Practice in Earth Sciences. Springer, Cham. https://doi.org/10.1007/978-3-030-64765-0_16
33. Uzun Ozsahin, D., **Uzun, B.**, Ozsahin, I., Taiwo, M.M., and Sani Musa, M., Ch 6- Fuzzy logic in medicine, Editor(s): Walid Zgallai, In Developments in Biomedical Engineering and Bioelectronics, Biomedical Signal Processing and Artificial Intelligence in Healthcare, Academic Press 2020, 153 – 182, <https://doi.org/10.1016/B978-0-12-818946-7.00006-8>
34. Kırıl, E., **Uzun, B.**, Does Global Hunger Tend to Decrease?, Editor(s): Harun Bal, Economics and Politics, Akademisyen Press, 3, 2019, 139-144
35. Ozsahin, I., Uzun Ozsahin, D., **Uzun, B.**, Taiwo Mustapha, M., Chapter 1 - Introduction, Editor(s): Ilker Ozsahin, Dilber Uzun Ozsahin, Berna Uzun, Applications of Multi-Criteria Decision-Making Theories in Healthcare and Biomedical Engineering, Academic Press, 2021, Pages 1-2, ISBN 9780128240861, <https://doi.org/10.1016/B978-0-12-824086-1.00001-3>
36. **Uzun, B.**, Ozsahin, I., Oru Agbor, V., Uzun Ozsahin, D., Chapter 2 - Theoretical aspects of multi-criteria decision-making (MCDM) methods, Editor(s): Ilker Ozsahin, Dilber Uzun Ozsahin, Berna Uzun, Applications of Multi-Criteria Decision-Making Theories in Healthcare and Biomedical Engineering, Academic Press, 2021, Pages 3-40, ISBN 9780128240861, <https://doi.org/10.1016/B978-0-12-824086-1.00002-5>
37. Uzun Ozsahin, D., Meck, K., Tanaka Halimani, S., **Uzun, B.**, Ozsahin, I., Chapter 3 - Fuzzy PROMETHEE-based evaluation of brain cancer treatment techniques, Editor(s): Ilker Ozsahin, Dilber Uzun Ozsahin, Berna Uzun, Applications of Multi-Criteria Decision-Making Theories in Healthcare and Biomedical Engineering, Academic Press, 2021, Pages 41-58, ISBN 9780128240861, <https://doi.org/10.1016/B978-0-12-824086-1.00003-7>
38. Ozsahin, I., Uzun Ozsahin, D., Meck, K., Tanaka Halimani, S., **Uzun, B.**, Chapter 6 - Fuzzy PROMETHEE–based evaluation of skin cancer treatment techniques, Editor(s): Ilker Ozsahin, Dilber Uzun Ozsahin, Berna Uzun, Applications of Multi-Criteria Decision-Making Theories in Healthcare and Biomedical Engineering, Academic Press, 2021, Pages 81-98, ISBN 9780128240861, <https://doi.org/10.1016/B978-0-12-824086-1.00006-2>
39. Ozsahin, I., Abdulhaq Isa, N., Meck, K., Tanaka Halimani, S., **Uzun, B.**, Uzun Ozsahin, D., Chapter 7 - Fuzzy PROMETHEE–based evaluation of prostate cancer treatment techniques, Editor(s): Ilker Ozsahin, Dilber Uzun Ozsahin, Berna Uzun, Applications of Multi-Criteria Decision-Making Theories in Healthcare and Biomedical Engineering, Academic Press, 2021, Pages 99-116, ISBN 9780128240861, <https://doi.org/10.1016/B978-0-12-824086-1.00007-4>
40. Uzun Ozsahin, D., Salawu, R., **Uzun, B.**, Ozsahin, I., Chapter 10 - Application of fuzzy PROMETHEE on hearing aid, Editor(s): Ilker Ozsahin, Dilber Uzun Ozsahin, Berna Uzun,

41. Applications of Multi-Criteria Decision-Making Theories in Healthcare and Biomedical Engineering, Academic Press, 2021, Pages 153-162, ISBN 9780128240861, <https://doi.org/10.1016/B978-0-12-824086-1.00010-4>
42. Taiwo Mustapha, M., **Uzun, B.**, Uzun Ozsahin, D., Ozsahin, I., Chapter 11 - A comparative study of X-ray based medical imaging devices, Editor(s): Ilker Ozsahin, Dilber Uzun Ozsahin, Berna Uzun, Applications of Multi-Criteria Decision-Making Theories in Healthcare and Biomedical Engineering, Academic Press, 2021, Pages 163-180, ISBN 9780128240861, <https://doi.org/10.1016/B978-0-12-824086-1.00011-6>
43. Uzun Ozsahin, D., Ozsahin, I., Nyakuwanikwa, K., Simbanegavi, T.W., **Uzun, B.**, Chapter 12 - Evaluation and simulation of dental instrument sterilization techniques with fuzzy PROMETHEE, Editor(s): Ilker Ozsahin, Dilber Uzun Ozsahin, Berna Uzun, Applications of Multi-Criteria Decision-Making Theories in Healthcare and Biomedical Engineering, Academic Press, 2021, Pages 181-195, ISBN 9780128240861, <https://doi.org/10.1016/B978-0-12-824086-1.00012-8>
44. Taiwo Mustapha, M., Uzun Ozsahin, D., **Uzun, B.**, Ozsahin, I., Chapter 13 - Application of fuzzy TOPSIS in the sterilization of medical devices, Editor(s): Ilker Ozsahin, Dilber Uzun Ozsahin, Berna Uzun, Applications of Multi-Criteria Decision-Making Theories in Healthcare and Biomedical Engineering, Academic Press, 2021, Pages 197-216, ISBN 9780128240861, <https://doi.org/10.1016/B978-0-12-824086-1.00013-X>
45. Sultanoglu, N., **Uzun, B.**, Sayan, M., Sanlidag, T., Chapter 14 - Evaluation of the effectiveness of adult HIV antiretroviral treatment regimens using TOPSIS, Editor(s): Ilker Ozsahin, Dilber Uzun Ozsahin, Berna Uzun, Applications of Multi-Criteria Decision-Making Theories in Healthcare and Biomedical Engineering, Academic Press, 2021, Pages 217-228, ISBN 9780128240861, <https://doi.org/10.1016/B978-0-12-824086-1.00014-1>
46. **Uzun, B.**, Sultanoglu, N., Sanlidag, T., Sayan, M., Chapter 15 - Evaluating the effectiveness of recommended HIV adult postexposure prophylaxis drug regimens by using fuzzy PROMETHEE, Editor(s): Ilker Ozsahin, Dilber Uzun Ozsahin, Berna Uzun, Applications of Multi-Criteria Decision-Making Theories in Healthcare and Biomedical Engineering, Academic Press, 2021, Pages 229-238, ISBN 9780128240861, <https://doi.org/10.1016/B978-0-12-824086-1.00015-3>
47. Sayan, M., Sanlidag, T., Sultanoglu, N., **Uzun, B.**, Chapter 16 - The use of multicriteria decision-making method—fuzzy VIKOR in antiretroviral treatment decision in pediatric HIV-infected cases, Editor(s): Ilker Ozsahin, Dilber Uzun Ozsahin, Berna Uzun, Applications of Multi-Criteria Decision-Making Theories in Healthcare and Biomedical Engineering, Academic Press, 2021, Pages 239-248, ISBN 9780128240861, <https://doi.org/10.1016/B978-0-12-824086-1.00016-5>
48. Uzun Ozsahin, D., Hamidat, L., Alimi, F.D., **Uzun, B.**, Ozsahin, I., Chapter 18 - Evaluation of migraine drugs using MCDM methods, Editor(s): Ilker Ozsahin, Dilber Uzun Ozsahin, Berna Uzun, Applications of Multi-Criteria Decision-Making Theories in Healthcare and Biomedical Engineering, Academic Press, 2021, Pages 261-275, ISBN 9780128240861, <https://doi.org/10.1016/B978-0-12-824086-1.00018-9>

Edited Book/s:

- 1.1. Decision Analysis Applied to the Field of Environmental Health, Editor/s: Uzun Ozsahin, D., **Uzun, B.**, Sanlidag, T., LaMoreaux, J., Part of the Professional Practice in Earth Sciences Book Series, Springer, 2022 ISBN: 978-3-030-96681-2
2. Application of Multi-Criteria Decision Analysis in Environmental and Civil Engineering, Editor/s: Uzun Ozsahin, D., Gokcekus, H., **Uzun, B.**, LaMoreaux, J., Part of the Professional Practice in Earth Sciences Book Series, Springer, 2021 ISBN: 978-3-030- 64765-0
3. Applications of Multi-Criteria Decision-Making Theories in Healthcare and Biomedical Engineering: Editor/s: Ozsahin I., Ozsahin D., **Uzun, B.**, Elsevier, Academic Press 2021, ISBN: 9780128240878

Conference Abstract/s

1. Ozsahin, I., Onakpojeruo, E. P., **Uzun, B.**, Ozsahin, D. U., & Butler, T. A. (2023, July). Radiopharmaceutical selection for tau PET imaging. In *Alzheimer's Association International Conference*. ALZ.
2. Ozsahin, I., Onakpojeruo, E. P., **Uzun, B.**, Ozsahin, D. U., & Butler, T. A. (2023, July). Comparative evaluation of FDA-approved drugs for managing the symptoms of AD. In *Alzheimer's Association International Conference*. ALZ.
3. Uzun Ozsahin, D., Arikan, A., Sanlidag, T., Sayan, M., **Uzun, B.**, 2021, Ranking of Diagnostic SARS-CoV -2 IgG Antibody Tests by Using Multi-criteria Decision-Making Theory, 2021 European Biotechnology Congress
4. Arikan, A., Sanlidag, T., Sayan, M., **Uzun, B.**, Uzun Ozsahin, D., Comparative Evaluation of SARS-CoV- 2 IgM Antibody Tests by Multi-criteria Decision-Making Strategy, 2021 European Biotechnology Congress
5. Sanlidag, T., Arikan, A., **Uzun, B.**, Sayan, M., Uzun Ozsahin, D., Evaluating of the Test Performance of Antigen Diagnostic Tests for SARS-CoV -2 by Using Multi-criteria Decision-Making Theory, 2021 European Biotechnology Congress
6. Bartholomew Duwa, B., **Uzun, B.**, Kibarar, A.G., Kaba, S., Ozsahin, D.U., Evaluation of Techniques used in Phenol Removal from Wastewater using Fuzzy PROMETHEE Method, 15th International Conference on Applications of Fuzzy Systems, Soft Computing and Artificial Intelligence Tools (ICAFS 2022), Montenegro, 2022
7. Viktory Moro, S., **Uzun, B.**, Denker, A., Ozsahin, D.U., Analytical Analysis of the Assistive Devices for the Asthma Patients, 6-th International Conference on Analysis and Applied Mathematics (ICAAM 2022), Antalya, Turkey
8. **Uzun, B.**, Onakpojeruo, E.P., Ozsahin, I., Uzun D.U., Evaluation of The Treatment Alternatives For Spinal Cord Tumor Using Fuzzy-Promethee, European Operational Research Societies (Euro 2022). Aalto University Espoo, Finland, 2022
9. Balcioglu, O., Ozgocmen, C., **Uzun, B.**, Ozsahin, D.U., Ozsahin, I., Analysis of Varicose Vein Treatment Methods Using Fuzzy VIKOR Method, XIX World Congress of Phlebology, Istanbul, Turkey, 2022
10. Ozsahin, D.U., AyukNdifon, G., Ozsahin, I., **Uzun, B.**, Evaluation of the Sickle Cell Treatment Options using fuzzy TOPSIS Technique, Global Summit on Public Health and Preventive Medicine (GSPHPM 2022), Munich, Germany
11. Tuncyurek, O., Mubarak Taiwo, M., **Uzun, B.**, Yildirim, C. and Ozsahin, D.U., The Value of Computer-Aided Methods in The Diagnosis of Appendicitis: B Mode vs Shear-wave Ultrasound, 9th International Work-Conference on Bioinformatics and Biomedical Engineering (IWBBIO 2022) Gran Canaria, Spain
12. **Uzun B.**, Kiral E., Convergence of the Fuzzy Matrices, 2015 International Symposium

on Econometrics, Operations Research and Statistics Conference Record, 620-621

Conferences And Symposiums Attendance

1. DUPHAT 2025, Dubai, UAE, 24-26 March
2. 2025 IEEE 22nd International Multi-Conference on Systems, Signals & Devices, *February 17-20, 2025, Montasir, Tunisia*
3. Fifth Forum for Women in Research, 20-21 Feb 2025, University of Sharjah, Sharjah, UAE
4. 7th International Conference on the Developments in eSystems Engineering (DeSE2024), Sharjah & Khorfakkan, UAE, 2024
5. International Conference on Biomedical Engineering – 2024 Advances in Science and Engineering Technology (ASET), Dubai, UAE, 2024
6. 16th International Conference on Applications of Fuzzy Systems, Soft Computing and Artificial Intelligence Tools ICAFS 2023
7. The HCT International Conference on Advancements in Health Sciences (ICAHS) 2023, Dubai 2023
8. International Conference on Biomedical Engineering – 2023 Advances in Science and Engineering Technology (ASET), Dubai, UAE, 2023
9. The 3th International conference on Distributed Sensing and Intelligent Systems (ICDSIS2022), Dubai, UAE
10. Sixth International Conference on Analysis and Applied Mathematics (ICAAM 2022), Antalya, Turkey
11. XIX World Congress of Phlebology, Istanbul, Turkey, 2022
12. XL. International Turkish Microbiology Congress, Antalya, Turkey, 2022
13. 17th Turkish Cardiovascular Surgery Association Congress, Antalya, 2022
14. 15th International Conference on Applications of Fuzzy Systems, Soft Computing and Artificial Intelligence Tools (ICAFS 2022), Montenegro, 2022
15. 23rd International Workshop on Radiation Imaging Detectors, (iworld2022), Riva del Garda, Italy, 2022
16. European Operational Research Societies (EURO 2022). Aalto University Espoo, Finland, 2022
17. 9th International Work-Conference on Bioinformatics and Biomedical Engineering (IWBBIO 2022) Gran Canaria, Spain
18. International Conference on Forthcoming Networks and Sustainability 2022 Near East University Cyprus
19. The 3rd International Conference on Distributed Sensing and Intelligent Systems (ICDSIS2022), 19-21 October 2022, Dubai, UAE
20. International Conference on Mathematics, Statistics, And Applied Science (ICMASTAS-2022), Dubai, UAE, 2022
21. 2022 Advances in Science and Engineering Technology International Conferences (ASET), Dubai, UAE, 2022
22. 14th International Conference on Developments in eSystems Engineering (DeSE), 2021, Sharjah, UAE.
23. Technical Committee Member, 5-th International Conference on Natural Resources and Sustainable Environmental Management NRSEM-2021, Nicossia, Cyprus, 2021
24. Technical Committee Member, International Conference on Environment: Survival and Sustainability, Nicossia, Cyprus, 2019
25. Technical Committee Member, 2nd International Conference on Water Problems in the Mediterranean Countries, Nicossia, Cyprus, 2019

26. Technical Committee Member, 2nd International Conference on “The Cyprus Issues: Past, Present and The Vision for the Future
27. ASET Engineering Innovations in Healthcare International Conference, Sharjah, Dubai, 2019
28. ASET Engineering Innovations in Healthcare International Conference, Sharjah, Dubai, 2018
29. International Symposium on Industry 4.0 and Applications, Karabük, Turkey, 2017
30. 9th International Conference on Theory and Application of Soft Computing, Computing

with Words and Perception (ICSCCW 2017), Budapest, Hungary, 2017

31. 17th International Symposium on Econometrics, Operations Research and Statistics, Sivas, Turkey, 2016
32. 16th International Symposium on Econometrics, Operations Research and Statistics, Tekirdağ, Turkey, 2015
33. 12th International Symposium on Econometrics, Operations Research and Statistics, Denizli, Turkey, 2011

Directed Thesis

PhD.

1. MCDM In Healthcare: Inotropes And Heart Failure, Cemre Özgöçmen PhD. 2025, (Co-Supervisor)
2. Improving the Medical Approach to Cardiovascular Diseases Through the Application of Multi-Criteria Decision Theory, Hasan Erdagli, PhD. 2025, (Co-Supervisor)
3. Quantifying Holistic Capacity Response and Healthcare Resilience in Tackling Covid19: Assessment of Country Capacity By MCDM, Nuhu Abdulhaqq Isa, PhD. 2024, (Co-Supervisor)
4. Machine Learning Approaches for Predicting Malaria and Monkeypox Diseases, 2023, Basil Barth Duwa, PhD. (Co-Supervisor)
5. Application of Machine Learning for Medical Disease Diagnosis, 2022, Mustapha Mubarak Taiwo, PhD. (Co-Supervisor)

MSc.

1. Multi-Criteria Decision-Making Techniques for the Diagnosis of Prostate Cancer, Mohammed Adil Jasim Al Sudani, 2026, MSc. (Co-Supervisor)
2. Multi-Criteria Decision Analysis for Mechanical Ventilators, Mohammed Rasool Ameen, 2026, MSc. (Co-Supervisor)
3. Developing A Predictive Model for Type 1 Diabetes Using HbA1c and Lipid Profiles With Machine Learning, Ameen Ahmed Nsaif Al Hakeem, 2025, MSc. (Co-Supervisor)
4. Comparative Evaluation of Microwave-Based Blood Glucose Sensors Using Multi-Criteria Decision-Making Techniques, Dher Ali Sameer Altahhan 2025, MSc. (Co-Supervisor)
5. Lung Cancer Detection from Lung Ct Scan Images Using Transfer Learning Methods for Improved Diagnostic Precision and Early Intervention, Ghadeer Imad Kadhim Jleeha, 2025, MSc. (Co-Supervisor)
6. Developing Explainable Machine Learning Models for Anemia Diagnosis Using Hematological Parameters, Taher Aqeel Abdulrazzaq Al Janabi, 2025, MSc. (Co-Supervisor)
7. Multi-Criteria Decision Analysis Strategies for Leukemia Diagnosis: Integration of Medical Imaging and Blood Analysis Technologies, Obaeda Naser Al-Ani, 2025, MSc. (Co-Supervisor)
8. Evaluating The Reliability of Corneal Devices Using MCDM, Sajjad Al-Saedi, 2025, MSc. (Co-Supervisor)
9. Evaluation Of Devices Used for Stroke Diagnosis Using Multi-Criteria Decision-Making (MCDM), Muntadher Taher Alhatab, 2025, MSc. (Co-Supervisor)
10. Application Of Nanotechnology in Enhancing Surgical Equipment Coating Properties: An Analytical Study Using MCDM, Harith Abdulaali Salim, 2025, MSc. (Co-Supervisor)
11. Multi Criteria Decision Analysis for Hypertension Monitoring Devices, Mohammed Adel

- Abed Al-Tameemi, 2025, MSc. (Co-Supervisor)
12. Application Of Multi-Criteria Decision-Making in the Treatment of Diabetes-Induced Renal Failure, Karrar Hayder Fadhil Aljawadi, 2025, MSc. (Co-Supervisor)
 13. Investigating The Intention to Use Wearable Biomedical Devices in Libya, Ali Ibrahim Ali Althohami, 2025, MSc. (Co-Supervisor)
 14. Mathematical Assessment of Renal Cell Carcinoma Treatment Techniques, Alhamza Abdul Satar Shaker, 2024, MSc. (Co-Supervisor)
 15. Biomaterials And Their Biomedical Applications for Enhancing Skin Chronic Wound Healing, Diane Mujawaezu, 2024, MSc. (Co-Supervisor)
 16. Classification Of Arrhythmia from Electrocardiogram Signals Using a Deep Neural Network, Amer Abdullah Mohammed Al-Luhaib, 2024, MSc. (Co-Supervisor)
 17. Multi-Criteria Decision Analysis in Lymphoma Diagnosis, Ali Tawfeeq Lateef Hammoodi, 2024, MSc. (Co-Supervisor)
 18. Nanotechnology Based on Drug Delivery System in Breast Cancer Therapy, Eyad Majed Alashqar, 2024, MSc. (Co-Supervisor)
 19. Dental Fillings Materials and Their Evaluation by Using Fuzzy Promethee Method and Clarifying the Risk Factors of Amalgam, Amar Saad Zinelabdin Mohamed, 2023, MSc. (Co-Supervisor)
 20. Evaluation Of Biomaterials Used in Orthopedic Implants, Esther Chifurumnanya Anyanwu, 2023, MSc. (Co-Supervisor)
 21. Evaluation Of Opinions the Role of Artificial Intelligence in The Prediction of Lung Cancer, Natacha Usanase, 2022, MSc. (Co-Supervisor)
 22. Evaluation Of Carcinoid Tumor Treatment Options Using Multi-Criteria Decision Making (MCDM), Declan Ikechukwu Emegano, 2022, MSc. (Co-Supervisor)
 23. Evaluation of the Nonpharmacologic Methods of Controlling Pain During Childbirth; Using Analytical Evaluation Models, Efe Precious Onakpojeruo, 2022, MSc. (Co-Supervisor)
 24. Evaluating Treatment Alternatives for Varicose Veins in the Leg, Mohammed Abudaqqa, 2022, MSc. (Co-Supervisor)
 25. Evaluating The Different Treatment Methods for Osteoporosis Using the Fuzzy PROMETHEE, Sharmain Dube, 2021, MSc. (Co-Supervisor)
 26. Asthma And Its Medical Devices, Sabareela Victory Moro, 2021, MSc (Co-Supervisor)
 27. Comparative Analysis and The Application of Non-Contact Temperature Reading Devices in The Control of Covid-19 Using Fuzzy Promethee, Basil Barth Duwa, 2021, MSc. (Co-Supervisor).

Computer Skills

Operating Systems: Mac OS, Windows

Software / Applications, Languages and Scripts: SPSS (Intermediate), Minitab (Moderate), R (Basic), EViews (Intermediate), MS Office (Intermediate)

References:

Assoc. Prof. Dr. Ersin Kiral (MSc and PhD Supervisor)

Çukurova University. Faculty of Economics and Administrative Sciences, Department of Econometrics, Adana, 01330, Turkey. [REDACTED]

Prof. Dr. Gulsen Kiral

Çukurova University. Faculty of Economics and Administrative Sciences, Department of Econometrics, Adana, 01330, Turkey. [REDACTED]

Prof. Dr. Huseyin Gokcekus

Civil Engineering Department, Near East University, Nicosia/TRNC, Mersin-10, Turkey
huseyin.gokcekus@neu.edu.tr

Assoc. Prof. Dr. Ilker Ozsahin

Operational Research Center in Healthcare, Near East University, Nicosia/TRNC, Mersin-10, Turkey & Brain Health Imaging Institute, Department of Radiology, Weill Cornell Medicine, New York, NY 10065, USA ilker.ozsahin@neu.edu.tr

Assoc. Prof. Dr. Hijaz Ahmad

Operational Research Center in Healthcare, Near East University, Nicosia/TRNC, Mersin-10, Turkey hijaz.ahmad@neu.edu.tr

Assist. Prof. Dr. Ali Denker

Mathematics Department, Near East University, Nicosia/TRNC, Mersin-10, Turkey
ali.denker@neu.edu.tr