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## ENGINEERING FACULTY

## e - Newsletter

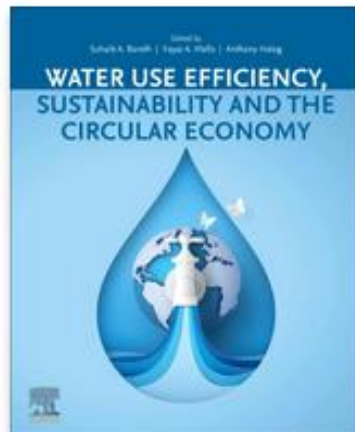
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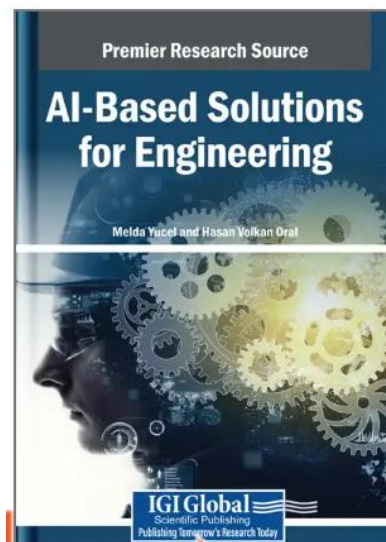
## BOOK CHAPTER

Prof. Dr. Hasan SAYGIN and Assoc. Prof. Dr. H. Volkan ORAL have published a book chapter entitled “Water Management and Sustainable Development: Circular Economy Approach” within the scope of the TÜBİTAK COST Project they are working on together. The chapter appears in the Elsevier publication “Water Use Efficiency, Sustainability and The Circular Economy.” (<https://shop.elsevier.com/books/water-use-efficiency-sustainability-and-the-circular-economy/bandh/978-0-443-26749-9>)



## EDITORSHIP

Assoc. Prof. Dr. Hasan Volkan ORAL and Asst. Prof. Dr. Melda YÜCEL from the Department of Civil Engineering served as editors of the book titled “AI Based Solutions for Engineering.”





## CONFERENCE

Research Assistant Melisa ÇALIŞKAN DEMİR from the Department of Industrial Engineering participated in the 7th International Conference on Intelligent and Fuzzy Systems (INFUS 2025), hosted by Yıldız Technical University on June 29–31, 2025, and delivered a full-paper oral presentation.



## RESEARCH ACTIVITY

Research Assistant Tuğçe CEYHAN from the Department of Food Engineering carried out research activities within the scope of a Short Term Scientific Mission (STSM) between June 30 – July 21 at the Department of Agricultural, Food and Environmental Sciences, Università Politecnica delle Marche, Italy. This was conducted as part of the CA22134 – Sustainable Network for Agrofood Loss and Waste Prevention, Management, Quantification and Valorisation (FoodWaStop) project under the European Cooperation in Science and Technology (COST) Action, of which she is a member.





## ERASMUS

Asst. Prof. Dr. Mohammed ALKRUNZ visited Jordan between July 14–18, 2025, within the scope of the Erasmus+ Training Mobility program.



## ORAL PRESENTATION AWARD

Asst. Prof. Dr. Yavuz NACAĞLI participated in the 16th International Conference on Mechanical and Aerospace Engineering (ICMAE 2025) held in Rome, Italy, on July 15–17, 2025, and delivered a full-paper presentation. In addition, with the article titled “Combination of ANN and RSM to Evaluate the Performance of an UAV Turbojet Engine”, he received the Best Oral Presentation Award.





## IWW2025 CONFERENCE

The 12th session of the IWW Conference, which has been hosted many times in previous years by Istanbul Aydın University, is being organized this year in collaboration with Istanbul Technical University (ITU). Since its inception in 2005, this conference has grown each year, reaching an international scale, and this year it is being held in partnership with MIT. We kindly inform and invite interested academic colleagues.



**12<sup>th</sup> INTERNATIONAL CONFERENCE ON  
IMAGE PROCESSING,  
WAVELET AND APPLICATIONS**



## LATEST ACADEMIC PAPERS

### **Prof. Dr. Hasan SAYGIN & Assoc. Prof. Dr. Hasan Volkan ORAL**

Water management and sustainable development: Circular economy approach, Elsevier

### **Prof. Dr. Zafer ASLAN**

İşler, B., Şener, U., Tokgözlü, A., Aslan, Z., & Heise, R. (2025). Spatio-Temporal Variation in Solar Irradiance in the Mediterranean Region: A Deep Learning Approach. *Sustainability*, 17(15), 6696. <https://doi.org/10.3390/su17156696>

### **Prof. Dr. Osman YILDIRIM**

Ozturk, A. I. ., & Yildirim, O. . (2025). A comparative analysis of HOG and LBP feature extraction techniques in AdaBoost for image recognition. *International Journal of Innovative Research and Scientific Studies*, 8(2), 696–703. <https://doi.org/10.53894/ijirss.v8i2.5290>

Ozturk, . A. I. ., Yildirim, O. ., Kaygusuz, K. ., Idman, E. ., & Idman, E. . (2025). Brain cyst detection using deep learning models. *International Journal of Innovative Research and Scientific Studies*, 8(5), 1137–1146. <https://doi.org/10.53894/ijirss.v8i5.8974>

OZTURK, D. A. I., YILDIRIM, P., & Deryahanoglu, D. O. (2024). A Comprehensive Strategy for the Identification of Arachnoid Cysts in the Brain Utilizing Image Processing Segmentation Methods. *International Journal of Innovative Technology and Exploring Engineering (IJITEE)*.

Arslan, E. Y., Kara, S. S., & Yildirim, O. (2025). Evaluating Carbon Policy Impacts on Supply Chain Design Aligned with SDG 12. *Journal of Lifestyle and SDGs Review*, 5(7), e07094. <https://doi.org/10.47172/2965-730X.SDGsReview.v5.n07.pe07094>

Yildirim, O., & Arslan, E. Y. (2025). Toward SDG 7: Integrating Energy Management Systems Into Green Campuses: a Systematic Review and Evidence from Istanbul. *Journal of Lifestyle and SDGs Review*, 5(7), e07092. <https://doi.org/10.47172/2965-730X.SDGsReview.v5.n07.pe07092>

### **Assoc. Prof. Dr. Hüseyin Çağan KILINÇ**

Streamflow Prediction Using an Incremental Attention Network with LSTM and Chaos Optimization Techniques, *Ain Shams Engineering Journal*



**Assoc. Prof. Dr. Nima MİRZAEİ & Assoc. Prof. Dr. Raheleh MİRZAEİ & Res. Assist. Melisa ÇALIŞKAN DEMİR**

Al-Kabeer, A., Mirzaei, N., Demir, M.C., Mirzaei, R. (2025). Identifying Potential Locations for Electric Vehicle Charging Stations at Petrol Stations: A Case Study of the Most Populated Districts in Istanbul. In: Kahraman, C., et al. Intelligent and Fuzzy Systems. INFUS 2025. Lecture Notes in Networks and Systems, vol 1530. Springer, Cham. [https://doi.org/10.1007/978-3-031-98565-2\\_2](https://doi.org/10.1007/978-3-031-98565-2_2)

**Assist. Prof. Dr. Dilşad AKGÜMÜŞ GÖK**

AKGÜMÜŞ GÖK D., AKAY B. D. (2025). Fabrication and Characterization of Carbon and Glass Fiber Reinforced Thermoplastic Composites by Fused Filament Fabrication, Scientific Reports, 15,30037- 30054. (DOI: 10.1038/s41598-025-15450-6).

**Assist. Prof. Dr. Mohammed Gamal Omar AL HAGRI**

Al-Hagri, M. G., Ebribesh, S. H. B. I., Alamoudi, F., & al Haj Ali, A. R. (2025). Effect of dimensions of specimens on the impact performance of concrete. Challenge Journal of Concrete Research Letters, 16(2), 85–94. <https://doi.org/10.20528/cjcr1.2025.02.004>

**Assist. Prof. Dr. Roa'a MOHAMMEDQASEM - Assist. Prof. Dr. Hayder MOHAMMEDQASEM – Assist. Prof. Dr. Bilal ÖZTÜRK**

Mohammedqasim, H., Mohammedqasem, R., Ozturk, B.A., Hamedy, H.R., Asghar, A.b. (2025). Human-Centric Video Analysis in Industrial Environments. In: Kumar, A., Swaroop, A., Shukla, P. (eds) Proceedings of Fourth International Conference on Computing and Communication Networks. ICCCN 2024. Lecture Notes in Networks and Systems, vol 1292. Springer, Singapore. [https://doi.org/10.1007/978-981-96-3250-3\\_26](https://doi.org/10.1007/978-981-96-3250-3_26)

Mohammedqasem, R., Mohammedqasim, H., Ozturk, B.A., Farhan, L.M., Ismael, A.K. (2025). Sentiment Analysis and Assessment of Public Opinions Regarding COVID-19 Vaccination via Twitter and Machine Learning Techniques. In: Kumar, A., Swaroop, A., Shukla, P. (eds) Proceedings of Fourth International Conference on Computing and Communication Networks. ICCCN 2024. Lecture Notes in Networks and Systems, vol 1292. Springer, Singapore. [https://doi.org/10.1007/978-981-96-3250-3\\_14](https://doi.org/10.1007/978-981-96-3250-3_14)



Mohammedqasim, H., Mohammedqasem, R., Ozturk, B.A., Akl, O., Boulahya, A. (2025). Tomato Disease Detection: Leveraging YOLOv8.2.0 for Accurate and Efficient Solutions. In: Kumar, A., Swaroop, A., Shukla, P. (eds) Proceedings of Fourth International Conference on Computing and Communication Networks. ICCCN 2024. Lecture Notes in Networks and Systems, vol 1292. Springer, Singapore. [https://doi.org/10.1007/978-981-96-3250-3\\_36](https://doi.org/10.1007/978-981-96-3250-3_36)

Jasim, A.A., Mohammedqasim, H., Mohammedqasem, R., Ozturk, B.A. (2025). Enhancing Heart Disease Prediction Based on Stacking Classifiers and Hyperparameter Optimization. In: Kumar, A., Swaroop, A., Shukla, P. (eds) Proceedings of Fourth International Conference on Computing and Communication Networks. ICCCN 2024. Lecture Notes in Networks and Systems, vol 1291. Springer, Singapore. [https://doi.org/10.1007/978-981-96-3244-2\\_24](https://doi.org/10.1007/978-981-96-3244-2_24)

#### **Assist. Prof. Dr. Yavuz NACAĞLI**

Combination of ANN and RSM to Evaluate the Performance of an UAV Turbojet Engine, 16th International Conference on Mechanical and Aerospace Engineering (ICMAE 2025)

#### **Assist. Prof. Dr. Bilal ÖZTÜRK**

Alkhatib, İ. A. Y., Alkarablieh, M. A., Alabadleh, O., Alshnaikat, M. S., Abushawali, M., Al-atoum, M. S., ... & Salih Ozturk, B. A. (2025). The Internet of Things (IoT)-Based Smart Healthcare System (SHS), Using Blockchain Technique. *Internet Technology Letters*, 8(4), e70064.

Alshnaikat, M. S., Alsunbuli, B. N., Mahyuddin, N. M., Ismail, W., Shamaileh, A. A., Barqawi, M. H. J., ... & Ozturk, B. A. (2025). The Communication MIMO System for Performance of Thermal Noise, and Nonlinearity Losses of an RF Transceiver Phase Noise an RF in 6G. *Internet Technology Letters*, 8(5), e70087.

Ozturk, B., Qasim, H. M., Qasem, R. A. M., & Khamoushi, F. (2025). Comparative Study of Optimization Algorithms in CNNs for Brain MRI Image Classification. *Scalable Computing: Practice and Experience*, 26(4), 1860-1869.



**Res. Assist. Melisa ÇALIŞKAN DEMİR**

Demir, M.C., Aydın, Ö.F., Taskin, A., Kaçar, F. (2025). Integrating Google Search Trends with Advanced Predictive Models for Forecasting German Tourist Arrivals to Türkiye: A Decade-Long Analysis. In: Kahraman, C., et al. Intelligent and Fuzzy Systems. INFUS 2025. Lecture Notes in Networks and Systems, vol 1531. Springer, Cham. [https://doi.org/10.1007/978-3-031-98304-7\\_30](https://doi.org/10.1007/978-3-031-98304-7_30)