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## ENGINEERING FACULTY

## e - Newsletter

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## CONGRATS

The team, consisting of undergraduate and graduate students and advised by Prof. Dr. Ferdi SÖNMEZ, represented Istanbul Aydın University and Turkey in the finals of the GRAILS competition held at Rotterdam University in June with their artificial intelligence (AI) project, and achieved second place.

GRAILS (The Global Responsible AI League for Students) is an annual competition that invites students, researchers, and enthusiasts from around the world to develop AI solutions focused on ethics, responsibility, and sustainable impact.

Rotterdam University provided direct support to our students during the visa application process and offered free meals, guidance, activities, and more throughout the competition.



## CONFERENCE

Research Assistant Melisa ÇALIŞKAN DEMİR from the Department of Industrial Engineering attended the 5th International Conference on “Modelling, Computation and Optimization in Information Systems and Management Sciences” (MCO 2025), held in Metz, France on June 4–6, and delivered an oral presentation of her full paper.





Research Assistant Melisa ÇALIŞKAN DEMİR from the Department of Industrial Engineering attended the 34th European Conference on Operational Research (EURO 2025), held in Leeds, United Kingdom between June 22–25, and delivered an oral presentation.



## VISITING

Dr. Tevfik Denizhan Müftüoğlu, a faculty member of the Department of Civil Engineering at our faculty, delivered lectures as part of the Erasmus+ teaching mobility program at Universitatea “1 Decembrie 1918” din Alba Iulia in Romania between May 26–30, 2025.

Hosted by the Departments of Cadastre, Civil Engineering, and Environmental Engineering, the visit included meetings with the university’s academic and administrative staff, on-site examinations of the department’s laboratory and research infrastructure, and detailed discussions on ongoing projects and institutional priorities.





## ACTIVITIES

Assoc. Prof. Dr. Hasan Volkan ORAL delivered a joint presentation with TÜBİTAK UIDB at the “COST Projects” promotional event organized by Sakarya University on June 20, 2025.

Assoc. Prof. Dr. Hasan Volkan ORAL was also a speaker at the GSD Congress on June 18, 2025, presenting on the topic “Impacts of Climate Change on Water Management.”

Additionally, Assoc. Prof. Dr. Hasan Volkan ORAL represented Istanbul Aydın University at the “Horizon Europe Project” meeting organized by the Embassy of Canada.

Assoc. Prof. Dr. Hasan Volkan ORAL served as an expert evaluator on behalf of TÜBİTAK in a relevant project evaluation panel.

Assoc. Prof. Dr. Hasan Volkan ORAL participated as a project reviewer in the online evaluation sessions of the Water4All Horizon 2020 projects held on June 16–17, 2025.

Asst. Prof. Dr. Süleyman ŞİMŞEK served as a TÜBİTAK observer panelist and successfully completed the evaluation of 2 projects with an e-signature on June 27, 2025.

Asst. Prof. Dr. Süleyman ŞİMŞEK was appointed as a TÜBİTAK observer panelist on the same date.

Asst. Prof. Dr. Yavuz NACAĞLI served as a reviewer within the scope of TÜBİTAK TEYDEB Support Programs (1501 - TÜBİTAK Industrial R&D Projects Grant Program).



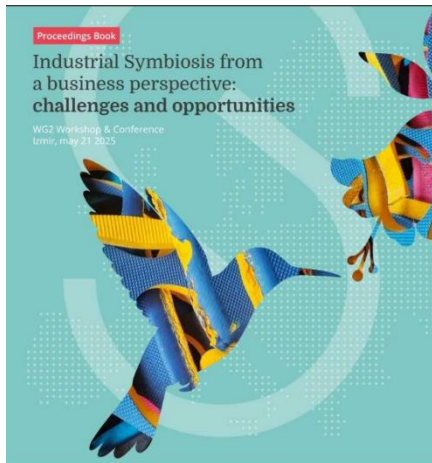
## EDUCATION ABROAD

Research Assistant Gamze MÜFTÜOĞLU participated in a training program at Universitatea “1 Decembrie 1918” din Alba Iulia in Romania between May 26–30, 2025, as part of the Erasmus+ program.



## BULLETIN BOOKLET

The bulletin booklet featuring the international meeting outcomes of the COST Action LIAISE, in which Assoc. Prof. Dr. H. Volkan Oral serves as the WG2 leader, has been published.



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## PRIZE

Istanbul Aydın University R&D Club and Industrial Engineering Club received an award at the Clubs Union Award Ceremony held on June 13, 2025, in recognition of the activities they carried out during the 2024–2025 academic year.



## PROJECT ACCEPTANCE

Asst. Prof. Dr. Mahdi TABATABAEIMALAZI will serve as a researcher in the research project titled “Comparison of Different HVAC Systems in Terms of Thermal Comfort and Energy Efficiency” at Yıldız Technical University (YTU).



## LATEST ACADEMIC PAPERS

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

Ugur Akbulut, Zafer Aslan, Mahmud Gungol, Machine Learning Methods and Trend Analysis: Gelendost Example

The impact of climate change on water resource management in Türkiye, Panel Chair

### **Prof. Dr. Ersin ARSLAN**

Arslan, E., & Demirtas, F. S. (2025). Optimization of PEO coating parameters for the enhancement of wear resistance of AA7075. *Surface Topography: Metrology and Properties*.

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

Saroughi, M., Katipoğlu, O. M., Kartal, V., Simsek, O., Kilinc, H. C., & Pande, C. B. (2025). Developing sediment concentration prediction in the Euphrates River catchment, Türkiye, with a honey badger and coati optimization-based hybrid algorithm. *Environmental Monitoring and Assessment*, 197(7), 80

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

Akgümüş Gök D., İpek R. (2025). Experimental Investigation on Microstructure and Mechanical Properties of Deep Cryogenic Treated Vanadium Alloy Steels, *Metals*.

Urkun R., Akgümüş Gök D. (2025). AlSi10Mg Honeycomb Lattices Produced by Laser Powder Bed Fusion: Mechanical, Thermal, and Microstructural Performances, *Journal of Sandwich Structures & Materials*, 1-25. (DOI: 10.1177/10996362251355388).

Karaman İ., Akgümüş Gök D., Gök S. (2025). Three-Dimensional Food Printer Design and Production, *Degres Journal*, 10(6), 254-274. (DOI: 10.5281/zenodo.15710697)

Hoşkun M., Akgümüş Gök D. (2025). Production of Polymer Matrix Composites with Stereolithography (SLA), *El Ruha 13th International Conference on Scientific Research*, Sharm El Sheik, Egypt

### **Assist. Prof. Dr. Kaveh DEGHANIAN**

Dinc, B.K., Dehghanian, K. & Etmianan, E. Sustainable soil stabilization using colemanite: experimental and numerical analysis of sandy soils for improved geotechnical properties. *J Build Rehabil* 10, 133 (2025). <https://doi.org/10.1007/s41024-025-00640-6>



### Assist. Prof. Dr. Mahmoud ZIADA

Tanyildizi H, Ziada M, Uysal M, Coşkun A. Comparison of bacteria-based autonomous and autogenous healing performances of geopolymer mortar exposed to sulfate attack. Structural Concrete. 2025. <https://doi.org/10.1002/suco.70204>

Ziada, Mahmoud and Al-Mayali, Zahraa Mohammed Kamil (2025) "NaOH Molarity Effect on Mechanical and Hydrochloric Acid Resistance of Geopolymer Mortar Based on Slag," Journal of Sustainable Construction Materials and Technologies: Vol. 10: Iss. 2, Article 8.

### Assist. Prof. Dr. Roa'a Alı Abdullah Mohammedqasem & Assist. Prof. Dr. Hayder Alı Abdullah Mohammedqasım & Assist. Prof. Dr. Bilal ÖZTÜRK

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.

Mohammedqasim, H., Mohammedqasem, R., Ozturk, B.A., Ibrahim, H.O. (2025). Predicting Car Prices Using Machine Learning Algorithms. 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\\_35](https://doi.org/10.1007/978-981-96-3244-2_35)

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)

Mohammedqasem, R., Mohammedqasim, H., Ozturk, B.A., Brahim, I.B., Jadallah, H., Alwesabi, N. (2025). Advanced NLP Techniques for Detecting Online Fake News Using the Fake News Dataset. 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\\_12](https://doi.org/10.1007/978-981-96-3244-2_12)

Revolutionizing the Classification of Medical Image Classification by using integrating advanced neural networks with pre-processing, Procedia Computer Science, Volume 258,2025, Pages 1326-1337, ISSN 1877-0509, <https://doi.org/10.1016/j.procs.2025.04.366>

### Res. Assist. Mazem YILMAZ

Investigation of electric curing effect of potassium activated fly ash and slag based geopolymer mortars, Mazem Yılmaz, Mücteba Uysal, 2025 fib symposium, Concrete structures: extend lifespan, limit impacts