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ENGINEERING FACULTY

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ALUMNI MEETING

The Industrial Engineering Club hosted successful women Industrial Engineers at the Alumni Gathering held on November 3, 2025. The guests of the event, Ms. Buse YÜKSEL and Ms. Deniz ARŞ, met with our Industrial Engineering students and shared their career journeys. In their talks, they offered valuable advice to support students' professional development, providing an inspiring experience for all participants.



TÜRKİYE GENOME PROJECT

Research Assistant Gamze MADEN MÜFTÜOĞLU discussed the Türkiye Genome Project with Younes MOKRAB, the Head of the Qatar Genome Program, as part of the 18th International Symposium on Health Informatics and Bioinformatics, and received valuable insights and recommendations regarding the project.





INVITED SPEAKER

Dr. Süleyman ŞİMŞEK attended the event held at Azerbaijan State University of Economics (UNEC) in Baku on 2–3 October 2025. Representing our university in the morning session on 2 October, Dr. ŞİMŞEK successfully delivered his invited talk titled “Inclusive Educational Approaches in Occupational Health and Safety Training.



BOOK SUGGESTION ACCEPTED

The book proposal titled “Microplastic Pollution and Sustainable Water Governance: Nature-Based and Policy Solutions,” submitted by Assoc. Prof. Hasan Volkan ORAL in collaboration with a research team from India to Apple Academic Press, an imprint of CRC Press, has been accepted by the publisher.





BOOK PROJECT

A new edited book project titled “Multidisciplinary Perspectives and Innovative Approaches in Industrial Symbiosis and Circular Economy,” to be published by Elsevier within the scope of COST Action LIAISE, has been initiated under the leadership of Assoc. Prof. Hasan Volkan ORAL.

In this project, Assoc. Prof. ORAL will serve as the editor-in-chief, overseeing coordination and planning. In addition, four researchers from four different countries will participate as co-editors.



TUBITAK 1005 PROJECT

Assoc. Prof. Hasan Volkan ORAL will serve as a consultant in the TÜBİTAK 1005 “New Ideas” Project, which was proposed and accepted by Hitit University. The project focuses on sustainability and circularity through Life Cycle Analysis (LCA).





ACTIVITIES

-Prof. Dr. Zafer ASLAN participated as an invited speaker at the Aviation Meteorology 360 Symposium, held at Istanbul Technical University (ITU) on 24–26 November 2025, where he delivered a presentation titled “Atmospheric Boundary Layer, Modelling and Aviation.”

-The 12th International Conference of Image Processing, Wavelet and Applications on Real World Problems (IWW 2025)—the latest in the series held between 2006 and 2021, four of which were hosted by our university and others organized in collaboration with national and international universities—was conducted at Istanbul Technical University on 3–5 November 2025. As one of the founding members of the conference, Prof. Dr. Zafer ASLAN, a faculty member of the Department of Computer Engineering, chaired the session titled “Machine Learning and Computational Methods in Climatology, Earth and Environmental Sciences,” during which eight speakers presented their papers.

-Assoc. Prof. Hasan Volkan ORAL served on the evaluation team of the Water4All call, where H2020-class projects are proposed.

-Within the scope of the studies conducted by Dr. Süleyman ŞİMŞEK, our university was represented with four oral presentations at the 12th International Occupational Safety and Worker Health Congress, held in November.

- The Faculty of Engineering submitted 70 TÜBİTAK-2209 project proposals to TÜBİTAK this semester.

**LATEST ACADEMIC PAPERS****Articles published in internationally indexed peer-reviewed journals (SCI, SCIE, ESCI, and Scopus)**

Aslan Z., B. İşler, G. M. Müftüoğlu and E. Feoli, (2025): "Hybrid Wavelet–ANN Modelling for LAI Forecasting under Climatic Variability: Comparative Case Studies from the Mediterranean Basin", *Acta Geophysica*

Aziz Ilyas Ozturk, Osman YILDIRIM, Ebru İdman, Emrah İdman (2025). A comparative study of hybrid decision tree–deep learning models in the detection of intracranial arachnoid cysts, *Neuroscience Informatics*, Volume 5, Issue 4, December, 100234. <https://doi.org/10.1016/j.neuri.2025.100234>

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Sheela, J. A. H., Sakthivel, S., Kabilan, B., Rathika, K., Dinesh, A., Mamani, R., ... & Baykal, A. (2025). Structural, Morphological, Optical, and Electrochemical Properties of CoMoO₄ Nanoparticles as Electrode for Supercapacitor Applications. *Semiconductors*, 59(11), 1159-1166.

Alghofaili, F., Tombuloglu, H., Almessiere, M. A., Alsaeed, M., Tombuloglu, G., Akhtar, S., ..., Baykal, A. & Turumtay, H. (2025). Synthesis and tracking of novel Mn and Se co-doped iron oxide nanoparticles: a promising nanofertilizer for plant growth and nutrient enrichment without genotoxic impact. *Journal of the Saudi Society of Agricultural Sciences*, 24(7), 62.

Al Naji, Z. H., Slimani, Y., Almessiere, M. A., Gondal, M. A., Thakur, A., Baykal, A., & Ul-Hamid, A. (2025). Efficient visible-light-active ZnO/Cs_{0.33}WO₃/g-C₃N₄ double Z-type heterojunction photocatalyst for rhodamine b photodegradation. *Spectrochimica Acta Part A: Molecular and Biomolecular Spectroscopy*, 126380.

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Aliha, M. R. M., Darvish, M. G., Choupani, N., Lahe, P., Bedir, F., & Sadowski, T. (2025). Novel double edge-cracked tensile ring test for experimental and numerical mixed mode I+ II fracture study of lightweight styrene acrylonitrile (SAN) foam with closed cell structure. *Engineering Fracture Mechanics*, 111634.

Katipoğlu, O. M., Kartal, V., Aktürk, G., Kilinc, H. C., Elshaboury, N., Yamany, M. S., & Pande, C. B. (2025). Beyond Conventional Methods: Predicting Novel Modified Groundwater Drought Indices with Advanced Computing Paradigms. *Pure and Applied Geophysics*, 1-32.

Demir, A., Musatat, A. B., Subaşı, A., Ramazanoğlu, D., Dehgan, H., Maraşlı, M., ... & Subaşı, S. (2025). Multifunctional GFRC composites: PEDOT: PSS-driven dielectric enhancement for energy storage and sensing applications. *Materials Chemistry and Physics*, 131512.

Dehghanpour, H., Subasi, S., Emiroglu, M., Marasli, M., & Ozdal, V. (2025). Investigation of glass fiber reinforced concretes with different fiber length and weight fraction by fracture energy and non-destructive methods. *Computers and Concrete*, 36(3), 269.

Mohammed Gamal AL-HAGRI, Mahmud Sami DÖNDÜREN (2025) Static and Impact Performance of Concrete Incorporating Steel Fiber, Nano-Ferric Oxide, and Fine Tire Rubber in Hybrid Forms, *Magazine of Concrete Research*

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Ozturk, A. B., Jakovljevic, N., Semaan, G., & Kumar, G. (2025). Spent Coffee Grains (SCG) to biofuels: a comparative techno-economic evaluation for hydrogen and methane production. *Biomass and Bioenergy*, 202, 108220.

Hayder Salah Mohammed, Ahmad H. Sabry, Husamuldeen K. Hameed, Abbas Uğurenver, Impact of pulse-width modulation techniques on inverter efficiency and motor current quality in permanent-magnet synchronous motor drives: a simulation study, *Measurement*, Volume 258, Part A, 2026, 119107, ISSN 0263-2241, <https://doi.org/10.1016/j.measurement.2025.119107>.

Uğurenver, A., & Khudhur, A. I. K. (2025). Zone-Based Simplification of Fuzzy Logic Controllers for Switched Reluctance Motor Drives. *Electronics*, 14(21), 4248.

KOMAN, Hakan; NIĞDELİOĞLU, Abdullah. Improving seismic performance of RC structures using AAC blocks and polyurethane binder. *Matéria (Rio de Janeiro)*, 2025, 30: e20250513.

Papers presented at international scientific conferences and published in the conference proceedings

Sürücü, G. B., Ş. S. Menteş, Z. Aslan, B. Barutçu, (2025): “Machine Learning-Based Analysis of Multi-Level Mast and Mesoscale Data for 100 m Wind Speed Extrapolation at the Perdigão Site”, The 12th International Conference of Image Processing, Wavelet and Applications on Real World Problems (IWW 2025), İTÜ, November 5, 2025.

Sawalha, O., M. Yaseen, Z. Aslan, (2025): “Machine learning techniques to predict total precipitation over specific seasons”, The 12th International Conference of Image Processing, Wavelet and Applications on Real World Problems (IWW 2025), İTÜ, November 5, 2025.

Cakir Elif; Özbey Hümeysra; Demircelik Fatma; Bodurlar Sena "Use Of Pectin Obtained From Local Banana Peels in Cookie Production: Oral Presentation" 4th International Congress on Food Researches

Dehghanian, K., & Koçak Dinç, B. (2025). Kesme dalga hızı ve döngüsel gerilim oranına dayalı kumlu zeminlerde sıvılaşma potansiyelinin sayısal değerlendirmesi. 10. Geoteknik Sempozyumu, 7–8 Kasım 2025, Kocaeli Uluslararası Kongre Merkezi.

International Book Chapter

Oral, H.V, Constructed wetlands: case studies from Türkiye, challenges and solutions, IWA Publishing