



FACULTY OF ENGINEERING AND ARCHITECTURE

BULLETIN

● **NOVEMBER 2025** ●

WHAT YOU WILL READ IN THIS ISSUE:

News from Faculty

Actual Topics in Engineering and Architecture

Academic and Scientific Activities

**FACULTY OF ENGINEERING AND
ARCHITECTURE**

**NEWS FROM
THE FACULTY**

**• MONTHLY •
BULLETIN**

**NOVEMBER
2025**

NEWS FROM THE FACULTY

●INDUSTRIAL ENGINEERING●

TRIKOTEK, A SUBSIDIARY OF KÜÇÜKLER HOLDING, VISITS OUR INDUSTRIAL ENGINEERING DEPARTMENT



Eda Güner and Meliha Yıldırım, representatives of Trikotek, a subsidiary of Küçükler Holding, visited the Department of Industrial Engineering at Istanbul Gelişim University's Faculty of Engineering and Architecture on November 17, 2025, and met with faculty members. The friendly meeting was productive, fostering both knowledge sharing and the emergence of new, forward-looking ideas.

During the meeting, project topics that will strengthen university-industry collaboration, internship and hands-on training opportunities that will better prepare our students for entry into the industry, and potential collaborative projects focused on production processes were discussed in detail. The Trikotek team offered insights into the company's areas of activity, production approach, and engineering needs, while our faculty shared our department's research culture, laboratory infrastructure, and student-developed projects.

The mutual interest and desire for collaboration expressed during the visit served as a strong foundation for potential future collaborative projects. As the Department of Industrial Engineering, we believe that such meetings with industry representatives both provide our students with a broader perspective and offer tangible opportunities for their career journeys.

We extend our sincere gratitude to the Trikotek family for their kind visit and valuable contributions, and we look forward to meeting again soon.

NEWS FROM THE FACULTY

●INDUSTRIAL ENGINEERING●



Invited to the opening and promotion of the LiveCom Association - Livable Cities Project Competitions program organized by the Avcılar Municipality and supported by the United Nations, Industrial Engineering Department Faculty Member Prof. Dr. Cemalettin Kubat attended the meeting attended by institutions and organizations from various countries around the world and exchanged information, experiences, and opinions with the participating members.



Istanbul Gelişim University's Department of Industrial Engineering has welcomed Sude Nur Bozik as a research assistant. Having successfully completed her undergraduate studies at our university in 2025 and currently pursuing a master's degree in Industrial Engineering at Yıldız Technical University, we wish her continued success in her academic career and congratulate her on her contributions to our university's scientific endeavors.



Asst. Prof. Mert Yildirim from the Department of Industrial Engineering at Istanbul Gelisim University, Faculty of Engineering and Architecture, attended the event titled "Tomorrow's Equation on Artificial Intelligence", held at Divan Kurugesme as part of the 30th anniversary celebrations of the Turkish Informatics Foundation as an invited guest. At the event, which featured speakers such as Faruk Eczacibasi, Chairman of the Board of the Turkish Informatics Foundation, Cecilia Bonefeld-Dahl, Director General of DIGITALEUROPE, and Karen Hao, award-winning journalist, author of the New York Times bestseller "Empire of AI", and a TIME100 AI listee, discussions focused on the global impacts of artificial intelligence, its ethical dimensions, societal implications, AI regulations in Europe, data governance, and digital competencies.

NEWS FROM THE FACULTY

● CIVIL ENGINEERING ●

THE 10TH GEOTECHNICAL SYMPOSIUM WAS HELD



Asst. Prof. İbrahim Rasin DÜZCEER, a faculty member of the Department of Civil Engineering, participated in the 10th Geotechnical Symposium held on at the Kocaeli International Congress Center. The event was organized by the Kocaeli, Ankara, and Sakarya branches of the Chamber of Civil Engineers (IMO), in collaboration with the Soil Mechanics and Geotechnical Engineering (ZMGM) Association.

During the opening session, distinguished speakers including the Governor of Kocaeli, the Mayor of Kocaeli, the President of the Chamber of Civil Engineers, and Branch Presidents delivered their remarks. As the President of the ZMGM Association and a member of the Symposium Organizing Committee, Asst. Prof. Rasin DÜZCEER provided an overview of the Association's ongoing activities, its contributions to the advancement of geotechnical engineering, and the financial support mechanisms it offers for early-career researchers.

The two-day Symposium hosted more than 400 academics, researchers, and practicing engineers, featuring 19 thematic sessions in which a total of 90 papers were presented. The department extends its appreciation to Asst. Prof. İbrahim Rasin DÜZCEER for his valuable contribution and representation at the symposium.

NEWS FROM THE FACULTY

● CIVIL ENGINEERING ●

ACADEMIC ADVISING MEETINGS HELD IN THE CIVIL ENGINEERING DEPARTMENT



The Civil Engineering Department of Istanbul Gelişim University's Faculty of Engineering and Architecture held academic advising meetings led by faculty members serving as class advisors.

The meetings focused on students' academic progress, course selections, semester planning, internship processes, and departmental practices. Advisors provided information on internship applications, report preparation, and evaluation procedures, emphasizing the importance of these experiences for professional growth. Students' questions regarding course structures, departmental procedures, and educational processes were also addressed in detail.

These meetings aim to enhance students' academic and professional development, improve the effectiveness of the advising system, and strengthen communication within the department. The Civil Engineering Department will continue to organize such meetings regularly as part of its student-centered educational approach.

NEWS FROM THE FACULTY

● CIVIL ENGINEERING ●

CIVIL ENGINEERING DEPARTMENT COUNCIL MEETING HELD

The faculty members of the Civil Engineering Department, Faculty of Engineering and Architecture, convened for the 2025 Fall Department Council Meeting to discuss key academic and administrative topics.

The meeting included discussions on course assignments for the upcoming spring semester at the undergraduate, master's, and doctoral levels, with decisions made based on the availability of instructors. Faculty and Institute Council decisions were reviewed, and relevant actions for departmental implementation were determined.

Feedback from internal and external stakeholders was also evaluated, focusing on integrating suggestions from students, alumni, and industry professionals into educational practices. Additionally, the department reviewed the progress of its quality assurance and accreditation processes, emphasizing documentation, assessment, and continuous improvement strategies.

The meeting concluded with decisions aimed at strengthening the department's academic development and commitment to quality and accreditation standards.

NEWS FROM THE FACULTY

● CIVIL ENGINEERING ●

BAP COORDINATION OFFICE HELD AN INFORMATION SEMINAR FOR GRADUATE STUDENTS



The Scientific Research Projects (BAP) Coordination Office of Istanbul Gelişim University held an online seminar titled “Information Seminar on BAP Project Applications for Graduate Students.”

During the seminar, an overview of the support programs managed by the BAP Coordination Office was provided, along with detailed information about the application procedures, evaluation criteria, and implementation stages of the “Graduate Thesis Projects” category.

The seminar proved to be a productive event that contributed to improving research processes and supporting the project management skills of graduate students.

NEWS FROM THE FACULTY

● ARCHITECTURE ●

EXTERNAL STAKEHOLDER VISIT: IGU DEPARTMENT OF ARCHITECTURE – CHAMBER OF ARCHITECTS BAKIRKÖY BRANCH – SW ARCHITECTURE



The external stakeholder visit between the IGU Department of Architecture, the Chamber of Architects Bakırköy Branch, and SW Architecture took place on 30 October 2025. During the meeting, potential collaborations were discussed that could strengthen the relationship between architectural education and professional organizations, and create bridges between students and the professional field. Representing our institution, Assoc. Prof. İlke Ciritci and Dr. Semih Göksel Yıldırım attended the meeting, while the Chamber of Architects Bakırköy Branch was represented by Architect Ayça Yazıcı, and SW Architecture was represented by Architect Ömer Yeşildal.

As a result of the meeting, it was decided to organize a “Professional Chamber – Architecture Students Meeting” at our institution in December, with the participation of 3rd- and 4th-year students. Additionally, a seminar will be held to introduce the Chamber’s free training programs, which provide students with valuable sectoral experience.

NEWS FROM THE FACULTY

● ARCHITECTURE ●

ARCHITECTURE AND EDUCATION CONGRESSES – ARCHITECTURE AND EDUCATION IN THE FACE OF DISASTERS



Since 2001, the Architecture and Education Congresses have been held biennially, contributing their outcomes to the architectural agenda. The congresses have addressed the issues of architectural education and the profession within the frameworks of formation, restructuring, continuity, change, authority and responsibility, development, and diversification; and sought solutions through cooperation between the professional environment and universities. In this context, the thirteenth Architecture and Education Congress—organized with the aim of fostering a collaborative platform between our professional body, the Chamber of Architects, and educational institutions—was held on 14–15 November 2025, hosted by Mimar Sinan Fine Arts University, under the theme “Architectural Education in the Face of Disasters.” Our department was represented at the congress by our Head of Department, Assoc. Prof. İlke Ciritci, our master’s programme alumna Hande Özdemir, and our first-year student Hilal Caba.

NEWS FROM THE FACULTY

● ARCHITECTURE ●

ARCHITECTURE AND DESIGN CLUB EVENT



The 18th Istanbul Biennial trip organized by the Architecture and Design Student Club of Istanbul Gelisim University took place on 16 November 2025. Within the scope of the tour route, the artworks exhibited at Elhamra Han, the Former French Orphanage, Meclis-i Mebusan 35, Kuleh Factory, Zihni Han, Galeri 77, Muradiye Han, and the Galata Greek Primary School were visited.

Since 1987, the Istanbul Foundation for Culture and Arts (IKSV) has been organizing the Istanbul Biennial with the aim of creating a meeting point in Istanbul for artists and audiences from different cultures in the field of visual arts. The eighteen biennials held so far have presented new tendencies in contemporary art every two years, while also playing a significant role in establishing an international cultural network among art communities, artists, curators, and critics both in Turkey and abroad.

Assoc. Prof. İlke Ciritci from the Department of Architecture accompanied our club event

NEWS FROM THE FACULTY

● ARCHITECTURE ●

TALK ON “SUSTAINABILITY OF BUILDINGS – ADAPTIVE REUSE” HELD WITHIN THE SCOPE OF TÜBİTAK SCIENCE TALKS:



The Department of Architecture at Istanbul Gelişim University hosted an important academic event within the scope of TÜBİTAK Science Talks. On 24 November 2025, a presentation titled “Sustainability of Buildings – Adaptive Reuse” was delivered by Assoc. Prof. İlke Ciritci.

During the event, the concept of sustainability was discussed in the context of the adaptive reuse of historic buildings. The importance of structural and cultural sustainability was emphasized, and the environmental, social, and cultural contributions of reintegrating existing buildings into urban life through transformation were examined. In addition, the adaptive reuse process was presented in detail through the example of the conversion of the Cibali Tobacco Factory into an educational building.

The talk was held with the active participation of students and academic staff. At the end of the event, a Q&A session was organized, during which contemporary approaches to adaptive reuse practices were discussed. The event provided an important academic platform that contributed to strengthening sustainability awareness in architectural education.

NEWS FROM THE FACULTY

● ARCHITECTURE ●

THE 2ND DEPARTMENTAL BOARD MEETING OF THE DEPARTMENT OF ARCHITECTURE FOR THE 2025 – 2026 FALL SEMESTER WAS HELD



The Department of Architecture at Istanbul Gelişim University held the 2nd Departmental Board Meeting for the 2025–2026 Fall Semester in an online format. The meeting, attended by the academic staff, addressed issues related to semester planning, educational processes, and the department's academic agenda.

During the meeting, participants exchanged views on course schedules, studio processes, student assessment methods, and the department's research activities. In addition, quality assurance processes, academic publication activities, and strategic goals for the upcoming period were reviewed and updated.

The Departmental Board Meeting provided an important platform for evaluation and coordination, contributing to the strengthening of the academic functioning of the Department of Architecture and enhancing the quality of education.

NEWS FROM THE FACULTY

● ARCHITECTURE ●

DISCUSSIONS ON EXTERNAL STAKEHOLDER COLLABORATION AND EVENT PLANNING HELD WITH FGA ARCHITECTURE



On 25 November 2025, a meeting was held with FGA Architecture, during which discussions were conducted regarding potential external stakeholder collaboration processes. In addition, evaluations were made on planning the upcoming term's event calendar in cooperation with the Department of Architecture and the Architecture and Design Student Club at Istanbul Gelisim University.

Within the scope of the meeting, potential areas for the development of university-industry collaborations were addressed, and an exchange of ideas took place on event types such as seminars, workshops, and talks aimed at encouraging student participation. During the discussions, mutual expectations regarding the structuring of institutional collaborations in the forthcoming period were evaluated, and the foundations of a sustainable event planning process were established.

**FACULTY OF ENGINEERING AND
ARCHITECTURE**

**ACTUEL TOPICS IN
ENGINEERING AND
ARCHITECTURE**

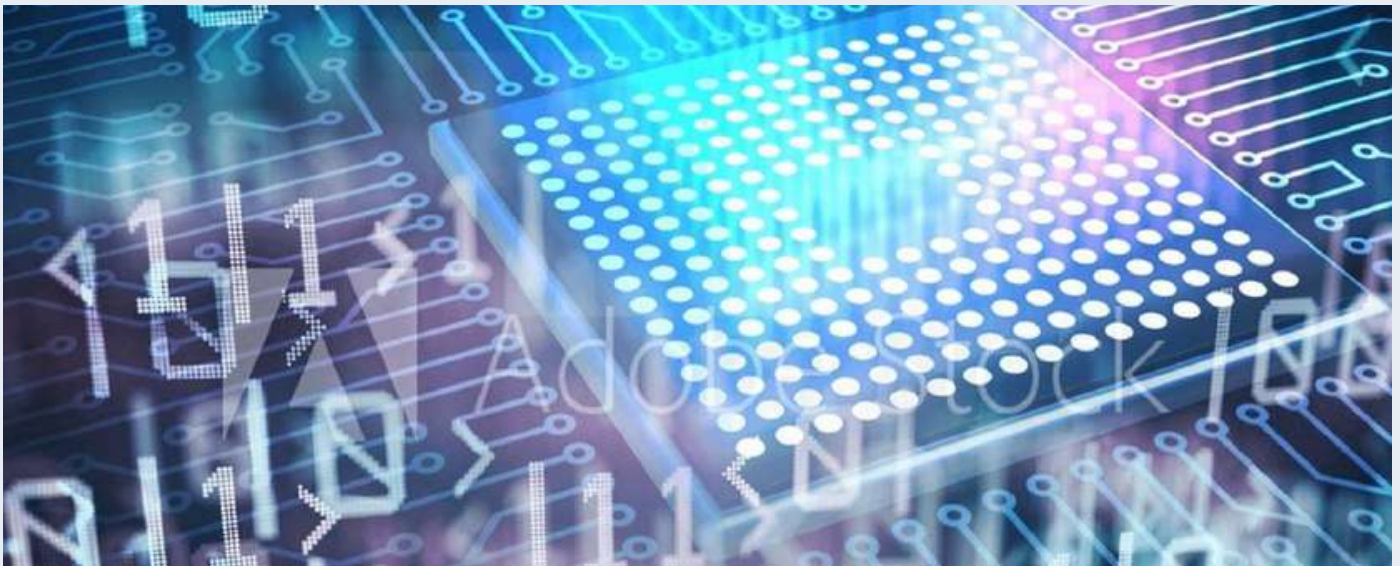
● **MONTHLY** ●
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ACTUEL TOPICS IN ENGINEERING AND ARCHITECTURE

● COMPUTER ENGINEERING ●

DEVELOPMENT OF NEXT-GENERATION ERROR-CORRECTION APPROACHES FOR QUANTUM COMPUTERS



Recent advances in quantum technologies have increased the importance of error-correction algorithms within the field of computer engineering. Unlike traditional computing methods, quantum bits are highly sensitive to environmental noise and instability, which complicates the design of reliable quantum processors. For this reason, research groups are developing next-generation error-correction mechanisms aimed at improving stability in quantum computation.

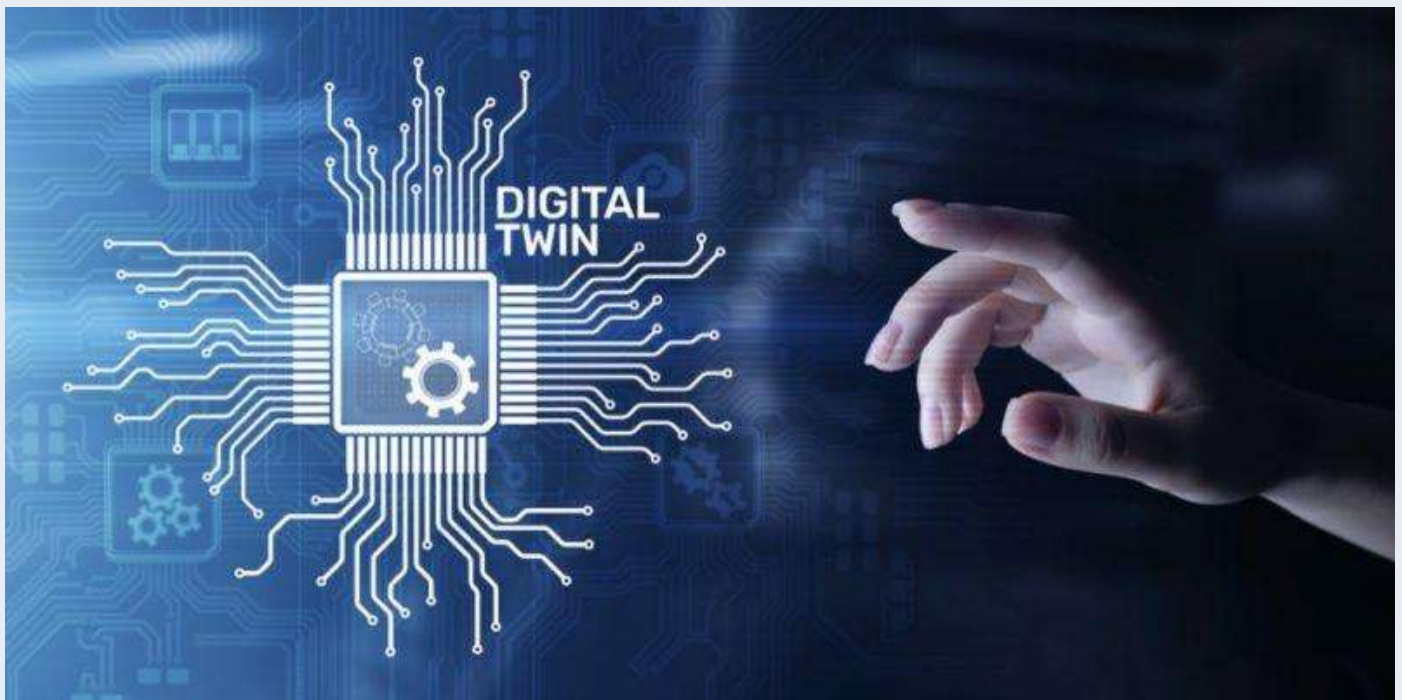
Recent studies demonstrate the applicability of hybrid error-correction models that reduce the need for physical qubits and lower computational cost. These models employ mathematical structures that minimize coding redundancy and enhance the accuracy of quantum circuits. It is also reported that the software components used in the control layer of quantum processors have been improved, with new control algorithms achieving lower latency and more efficient operation.

These developments enable quantum hardware architectures to be applied across broader domains and represent a significant transformation in the future of high-performance computing. The maturation of quantum error-correction technologies is expected to drive a paradigm shift that will directly influence both academic research and industrial R&D activities.

ACTUEL TOPICS IN ENGINEERING AND ARCHITECTURE

● INDUSTRIAL ENGINEERING ●

DIGITAL TWIN TECHNOLOGY AND INDUSTRIAL ENGINEERING



Digital twin technology creates a virtual replica of a physical system, fed with real-time data, offering businesses powerful analytical and predictive capabilities. For industrial engineers, this technology enables real-time monitoring of production line performance, predicting potential failures, and implementing process improvements faster, safer, and more cost-effectively.

Unlike traditional simulations, a digital twin is a constantly updated reflection of the system. This allows capacity planning, quality management, maintenance strategies, and supply chain optimization to be tested without interacting with the real world. When integrated with Industry 4.0 infrastructures, production systems become not only monitored but also continuously self-improving, intelligent structures.

This transformation necessitates the development of new skills for industrial engineers. Data analytics, understanding IoT infrastructures, simulation techniques, and basic artificial intelligence knowledge have become essential components of the profession. In short, digital twin technology is moving industrial engineering toward a more predictable, flexible, and sustainable future.

**FACULTY OF ENGINEERING AND
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**ACADEMIC AND
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ACTIVITIES**

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ACADEMIC AND SCIENTIFIC ACTIVITIES

● INDUSTRIAL ENGINEERING ●

The conference paper titled "The Use of Fuzzy Multi-Criteria Decision Making Methods in Industrial Investment Decisions: Application of Machine Selection in a Steel Wire Manufacturing Enterprise" authored by Prof. Dr. Tarık Çakar, a faculty member in the Department of Industrial Engineering, and Duygu Tüylü, a research assistant in the Department of Industrial Engineering, has been published in the proceedings of the 13th International Symposium on Intelligent Manufacturing and Service Systems (IMSS'25).

The conference paper titled "Barriers to Institutional AI Integration: A Systematic Approach Using FUCOM and Segmentation Analysis" authored by Asst. Prof. Binnur Akıf, faculty member of the Department of Industrial Engineering, has been published in the proceedings of the 13th International Symposium on Intelligent Manufacturing and Service Systems (IMSS'25).

The conference papers titled "Optimizing Binary Classification Algorithms Through Hyperparameter Tuning: A Case Study on Thyroid Cancer Prediction", "Multiagent System Design of Aluminium Production Process and Generative AI Based Manpower Planning", "Detection of Cyber Attacks with Machine Learning Algorithms" and "Bibliometric Analysis of Studies on the Use of Digital Twins in Disasters" Prof. Dr. Cemalettin Kubat, faculty member of the Department of Industrial Engineering, has been published in the proceedings of the 13th International Symposium on Intelligent Manufacturing and Service Systems (IMSS'25).

The Master's thesis prepared by Aeronautical Engineering Master's Student Cansu Pak under the supervision of Prof. Dr. Cemalettin Kubat, a faculty member of the Industrial Engineering Department, was deemed successful by the jury in the defense exam held on 20.11.2025 under the title of "Analysis of Aircraft Accidents and Incidents with the Use of Artificial Intelligence".

● ELECTRICAL ELECTRONICS ENGINEERING ●

An article by Asst. Prof. Dr. Peri GÜNEŞ, a faculty member of Electrical Electronics Engineering Department, titled "A Program-Output Estimator for Software Testing Using Program Analysis and Deep Learning Algorithms" has been published.

<https://link.springer.com/article/10.1007/s10836-025-06209-y>

An article by Asst. Prof. Dr. Ercan AYKUT, a faculty member of Electrical Electronics Engineering Department, titled "Automated Tuning of PID Controllers Using a Generalized Discrete PID Structure With Particle Swarm Optimization" has been published.

https://www.researchgate.net/publication/396843764_Automated_Tuning_of_PID_Controllers_Using_a_Generalized_Discrete_PID_Structure_With_Particle_Swarm_Optimization

ACADEMIC AND SCIENTIFIC ACTIVITIES

● CIVIL ENGINEERING ●

The article titled “Static Analysis of Functionally Graded Nanobeams Based on Euler–Bernoulli and Timoshenko Theories via Complementary Functions Method,” co-authored by Department Chair Asst. Prof. Ahmad Reshad NOORI and his PhD student Ahmed Mohammad Wasfi ALHASAN, has been published.

The study examines the static behavior of functionally graded nanobeams using the Euler–Bernoulli and Timoshenko beam theories. The canonical governing equations for both theories were derived for the first time and solved through the Complementary Functions Method (CFM).

Transverse deflections were obtained for various material gradient indices, nonlocal parameters, slenderness ratios, and boundary conditions. Benchmark comparisons validated the proposed model, and new numerical results were provided for cantilever and clamped-supported beams. The findings indicate that increased nonlocality and material gradation amplify deflections, particularly in thick beams where shear deformation becomes significant. This research demonstrates the capability of the CFM in accurately capturing scale-dependent mechanics, offering a reliable computational framework for the advanced design of nanoscale beams. The department congratulates Asst. Prof. Ahmad Reshad NOORI and Ahmed Mohammad Wasfi ALHASAN for their successful contribution.

The paper co-authored by Department Chair Asst. Prof. Ahmad Reshad NOORI, Research Assistant Kemal ERTUNÇ, and the department’s student Feyza Ahsen TÜRKER has been published.

Titled “Buckling Analysis of Steel-FGP Composite Columns via Finite Element Method,” the study investigates the buckling response of composite columns composed of a functionally graded porous core and a steel cover. Assuming linear elastic material behavior, the effects of porosity ratio and cover thickness on the critical buckling load were analyzed using the finite element method. The investigation, performed under different boundary conditions (fixed–free, fixed–pinned, and pinned–pinned), revealed that increasing porosity decreases the critical buckling load.

This research represents one of the first theoretical studies on the buckling behavior of steel–FGP composite columns and provides benchmark findings for future work in the field. The department congratulates Asst. Prof. Ahmad Reshad NOORI, Res. Asst. Kemal ERTUNÇ, and student Feyza Ahsen TÜRKER for their scientific contribution and wishes them continued success.

ACADEMIC AND SCIENTIFIC ACTIVITIES

● MECHATRONICS ENGINEERING ●

The study titled “Design and Development of AI Powered Smart Glasses with Integrated Cybersecurity Features for the Visually Impaired”, conducted by Assoc. Prof. Serkan GÖNEN, Assist. Prof. Kenan ŞENTÜRK, Assist. Prof. Gökçe KARACAYILMAZ, Assist. Prof. Deniz DAHMAN, Res. Assist. Mehmet Ali BARIŞKAN, Res. Assist. Tunay ACIMAN, and Master’s Student Furkan ONUR, has been published in the proceedings of the 13th International Symposium on Intelligent Manufacturing and Service Systems (IMSS25).

The study titled “Development of an Autonomous Vehicle System with Remote Control and Cybersecurity Features”, conducted by Assoc. Prof. Serkan GÖNEN, Assist. Prof. Kenan ŞENTÜRK, Assist. Prof. Gökçe KARACAYILMAZ, Assist. Prof. Deniz DAHMAN, Res. Assist. Mehmet Ali BARIŞKAN, Res. Assist. Tunay ACIMAN, and Master’s Student Furkan ONUR, has been published in the proceedings of the 13th International Symposium on Intelligent Manufacturing and Service Systems (IMSS25).

The article titled “Design and Analysis of a Novel Combined-Cogeneration Power Plant on Marine Gas Turbine-Powered Naval Surface Ships” by Assoc. Prof. Dr. Haydar Kepekçi, a faculty member in the Department of Mechatronics Engineering, has published in the Q2-impact-factor, SCI-indexed Journal of Thermal Analysis and Calorimetry.

● ARCHITECTURE ●

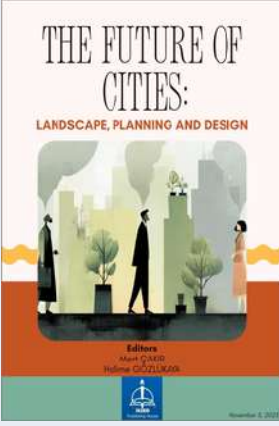
Within the scope of the studies carried out under the Department of Architecture and the Istanbul Studies Application and Research Center (İCUAM), a project application has been submitted to the TÜBİTAK 2209-A Undergraduate Research Projects Support Programme by Kübra Yılmaz under the supervision of Assoc. Prof. İlke Ciritci. The project, titled “Improving the Communication Flow Between Occupational Groups in Construction Sites: Development of a Protocol and Control Checklist,” proposes an innovative approach aimed at enhancing communication efficiency in construction site processes.

A new project application to the TÜBİTAK 2209-A Programme has been submitted by Önder Enes Kekeç under the supervision of Dr. Semih Göksel Yıldırım, within the Department of Architecture and the Istanbul Studies Application and Research Center (İCUAM).

The project, titled “Scale Prototyping of Panels and Joint Details in Post-Disaster Reusable Container Housing Using BIM-Supported 3D Printing,” aims to offer an innovative and applicable contribution to post-disaster shelter solutions.

ACADEMIC AND SCIENTIFIC ACTIVITIES

● ARCHITECTURE ●

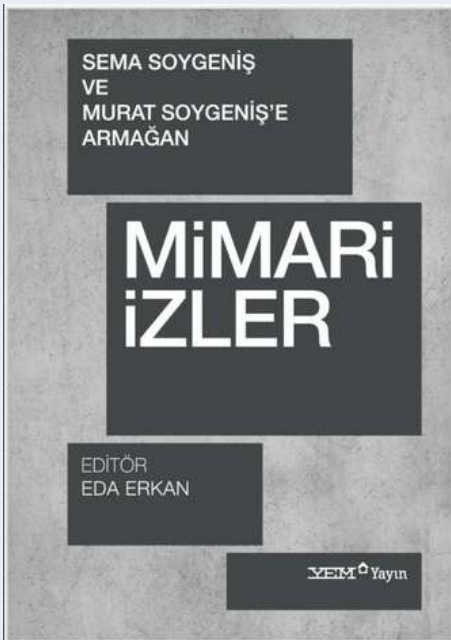


A chapter based on the work of graduate student Abdullah Engin Koşar, prepared under the supervision of Assoc. Prof. İlke Ciritçi within the scope of the graduate course Industrial Heritage and Conservation, has been published in the book *The Future of Cities: Landscape Planning and Design*.

The chapter titled "A Critique of the Redevelopment of the Golden Horn Shipyard and Coastline Based on the Example of the Boston Naval Shipyard" aims to critically compare the adaptive reuse processes of the Boston Naval Shipyard and the Golden Horn Shipyards in order to identify industrial heritage conservation principles that may guide future redevelopment projects.

By analyzing the socio-cultural and physical transformations of both sites, the study seeks to demonstrate how historical continuity, public participation and balanced urban programming can shape the success or failure of shipyard renewal projects. The findings are expected to contribute not only to academic debates but also to policy frameworks that emphasize cultural sensitivity and community-oriented approaches within the field of industrial heritage.

The study conducted by Assoc. Prof. İlke Ciritçi together with her master's student has been published by the Yapı Endüstri Merkezi Publications. The chapter is included in the book titled *Architectural Traces: A Tribute to Sema Soygeniş and Murat Soygeniş* and is entitled "A Critique of the Revival of the Tabriz Constitutional House in Terms of Its Theoretical Foundations". We congratulate our faculty member and her student.



RAMİN ALİZADEH GHOBBAN
(İLKE CİRİTÇİ)

Tebriz Meşrute Evi'nin Yeniden Canlandırılmasının Teorik Temelleri Açısından Eleştirisi

Konusu mekânların deneyimlenerek bölgenin yeniden öğrenilmesine katkıda bulunur. Bu eserler, sadece geçmişin kimliğini, yönetim ve yaşam tarzını, düşünce biçimini yansıtmaktan ileri geçilmez, aynı zamanda tarihi belge ve anı değeri olarak da sahip oldukları değerler dolayısıyla koruma altına alınmalıdır.

Tebriz şehrindeki Qajar ve Pahlavi dönemlerine ait tarihi evler, şehrin mimari mirası içinde en değerli yapılar arasındadır. Özellikle, Qajar dönemine ait evler, çeşitli mekânsal değerler ve süslemeleri bakımından mimarlar için özgü bir özel konum kazanmıştır (Tavakoli ve diğ., 2014:1). Qajar döneminde, İranlıların Maghreb bölgesiyle yaşam tarzı, mimarisi gibi konularda etkileşimi söz konusudur. Tebriz şehri, özel koşullar nedeniyle, özellikle Rusya ile yakın ilişkileri ve ticari önemi gibi faktörlerden dolayı, bu etkileşimin başladığı ilk şehirlerden biridir. Ancak günümüzde İran mimarisinde ve şehir evlerinin tasarımında ciddi bir değişiklik gözlenmemektedir (Belti, 2011:3).

İlke Ciritçi'ye göre, Tebriz şehrinde yaklaşık 300 tarihi nitelikte korunmaya değer ev bulunmaktadır. Bu evlerin yaklaşık 80 tanesi, kültürel kullanımlarla korunmuş durumda olup Kültürel Miras Yönetimi tarafından tanınmış ve böylece tahrip olmaktan korunmuş, varlıklarına devam edebilmektedir. Bu tarihi evlerden biri, yeni bir işlev verilerek yaşamını sürdüren Meşrutiyet Evi'dir.

giriş

İran şehirlerinin tarihi ve kültürel değerleri dolu doküman, yeterli ilgi gös-
terilmesini sebebiyle zaman içinde yok olma tehlikesiyle karşı karşıya kalmaktadır. Bu imal, şehirlerin ge-
neli atıyıp ekolojileriyle mücadele ettiği bir dönemde gerçekleştirilmektedir. Bu tür yapıların canlandırılması, sadece ekonomik açıdan değil, aynı zamanda kamusal refahın sağlanması ve genel olarak toplumun kültürel mirasıyla olan bağının güçlenmesi açısından da büyük önem taşır. Bu tür eserlerin canlandırılması, geçmişle olan bağın sürdürülmesine ve söz-

Bu ev, Meşrutiyet dönemi olaylarına yakın tankığı dolayısıyla yapıyı tarihi ve anı değerleri bağlamından ayırmak imkansızdır. Bir milletin özgürlüğüne dair değerli anıları koruma görevi, özellikle kültürel mirasın korunması ve bakımıyla ilgili kurullar, kişiler ve hatta halk için bir sorumluluktur.

Makale kapsamında Meşrute Evi'nin (Küzekonari Evi) restorasyon planının incelenmesi ve yeniden işlevlendirilerek teorik olarak berimlenen binaların bölgenin değerlendirilmesi amaçlanmıştır.

QAJAR DÖNEMİ TEBRİZ EVLERİNİN MİMARİSİ

Tarihi evlerin mekânsal düzeni incelendiğinde, yaşam tarzının çeşitliliği ve dinamikliği İran'ın kültürel zenginliğini göstermektedir. Tarihi evlerin mekânsal düzeni, kullanıcılar için geniş bir mekânsal çeşitlilik sunmakta, çeşitli aktiviteleri deneyimlemek ve gerçekleştirilmek için bir teşvik imkanı sağlamaktadır. Söz konusu mekânsal düzen, yapı içerisinde gerçekleştirilen aktivitelerin mekânsal çeşitlilikle desteklenmesiyle bir çeşitlilik sunmaktadır (İlaeri ve Muhammed, 2010:78). Öte yandan, İran mimarisini incelendiğinde, yapıların planlarında açık, yarı açık ve kapalı mekânların bir arada tasarlanması,

aktivitelerin aynı anda ve aynı yerde gerçekleştirilebildiğini gösterir (Belti, 2011:2). Avlulu konut tipi; bölgeleri, etnik kökenleri ve statü ayrımlarını aşan yaygın kimlik sembolünü paylaşır (Mansouri, 2018). Ayrıca tarihi evlerin mekânsal düzenlenmesinde, yaşam tarzının dinamikliğinde mekânın, içerisinde yer alan objelerin hükümlerinden anımsı olmaları aynı zamanda su ve bitkilerle birleşti bir ilişki kurması gibi faktörler de dikkat çekmektedir. İlaeri ve Muhammed, 2010:62-63). İran mimarisinin bir önemli özelliği de mekânsal düzenlemelerde odalar arasında kurulan görsel bağlantılardır. Bu özellikler bir arada geldiğinde mekânların deneyimlenmesinde çeşitlilik yaratılmaktadır.

Nâserüddin Şâh'ın hükümdarlığı döneminde, İran'ın Avrupa ile artan etkileşimi sonucunda, Avrupa mimarlığı İran mimarlığına nüfuz etmeye başlamıştır. Girişte merkezi bir odanın ortasından başlayan ve yukarıya doğru iki kola ayrılan merdivenlerle karakterize edilen giriş salonları, Rus mimarisinden etkilenmiştir ve bu etkileşim Qajar dönemi yapılarında kendini hissettirir. Kraliyet sarayları, havuz kullanımı, odaların zemin ve tavan kaplamalarında zarif süslemeler, binaların serinletme için kullanılan

ACADEMIC AND SCIENTIFIC ACTIVITIES

● ARCHITECTURE ●



The article entitled “A Study on Spatial Expansion, Transformation, and Master Planning in Urban University Campus”, authored by Assist. Prof. Semih G. Yıldırım (PhD) from the Department of Architecture, has been published in “International Journal of Social and Humanities Sciences Research (JSHSR)”: Urban university campuses have historically developed as integral components of the urban pattern, establishing strong interactions with economic, spatial, and socio-cultural dynamics over time. Today, the processes of spatial expansion and transformation in these campuses require a strategic planning approach due to increasing student populations, limited land availability, and the necessity of urban integration.

This study examines the spatial organization of urban campuses through four key parameters –physical infrastructure, transportation, social amenities, and housing– and aims to contribute to future-oriented planning principles. Methodologically, a university campus located in Istanbul was analyzed as a case study, with assessments based on current conditions, spatial analyses, and field observations. The findings reveal opportunities for new interventions and improvements in the campus’s spatial development. In particular, design strategies that enhance spatial cohesion, interventions that facilitate pedestrian accessibility, diversification of social amenities, and integration of housing opportunities with the campus are identified as carrying significant potential for future planning. The results highlight the importance of strengthening the campus not only as an academic environment but also as a social, cultural, and urban entity. The study underscores the necessity of a holistic and flexible master plan approach for urban university campuses and emphasizes the critical role of collaboration between universities, local governments, and the broader community. In this regard, the research contributes to the ongoing discourse on campus–city interaction and offers guidance for strategic planning frameworks applicable to future practices.



The TÜBİTAK 2209/A project titled “Comparative Analysis of Daylighting and Structural Performance in Vault Systems,” which Ebrar Sugün applied for while an undergraduate student in the Department of Architecture, was successfully completed on September, 2025. The project was supervised by Assist. Prof. Semih G. Yıldırım (PhD), a faculty member in the Department of Architecture.

ACADEMIC AND SCIENTIFIC ACTIVITIES

● ARCHITECTURE ●



The article entitled “Reusable Shipping Containers for Urban Resilience: Design Configuration”, authored by Assist. Prof. Semih G. Yıldırım (PhD), Assoc. Prof. İlke Ciritci (PhD) and Assist. Prof. Erdal Yıldız (PhD) from the Department of Architecture at Istanbul Gelisim University, and Assoc. Prof. Gül Yücel (PhD) from the Department of Architecture at Istanbul Rumeli University, has been published in the “International Journal of Engineering Technologies (IJET)”:

The volumetric nature of shipping containers presents significant logistical and safety limitations when mass-produced for post-disaster housing. In addition, the use of highly flammable insulation materials in conventional prefabricated shelters has raised serious fire safety concerns, especially in regions with high heating demand. In contrast, demountable warehouse racking systems provide favorable structural behavior under seismic loads, as well as ease of assembly and transport due to their modular configuration.

This study proposes an alternative temporary shelter model that combines the advantages of both systems by transforming shipping containers into reusable, panelized, and modular structures. The research primarily aims to evaluate the architectural feasibility of this transformation and to develop a design framework that supports flexibility, sustainability, and rapid deployment within urban contexts. The methodology involves analyzing existing container and demountable construction systems, followed by the design of panel-based spatial configurations that evolve from a single prototype unit into modular neighborhood clusters. The design approach adopts tiny house principles, emphasizing compactness, multifunctionality, and adaptability. Accessibility and universal design considerations are conceptually integrated at the unit level, while full compliance with local building regulations is identified as a focus for future phases of the study. The findings demonstrate that the proposed panelized container system enables efficient transport, fire resistance, reusability, and compatibility with urban environments—allowing disaster-affected populations to remain within their communities rather than being displaced to peripheral areas. The proposed model introduces a human-centered and scalable approach to post-disaster temporary settlements, while also outlining a comprehensive research agenda for future studies, including structural analysis, environmental performance testing, and accessibility enhancements.

ACADEMIC AND SCIENTIFIC ACTIVITIES

● SOFTWARE ENGINEERING ●

PAPERS BY ASSOC. PROF. DR. SERKAN GÖNEN AND ASSIST. PROF. DR. DENİZ DAHMAN PRESENTED AT IMSS'25

Faculty members of Istanbul Gelisim University, Department of Software Engineering, Assoc. Prof. Dr. Serkan GÖNEN and Assist. Prof. Dr. Deniz DAHMAN, took part in the 13th International Symposium on Intelligent Manufacturing and Service Systems (IMSS'25) with multiple scientific papers under this year's theme, "Advancing Smart Systems with Human-Centric AI."

Their contributions, spanning artificial intelligence-based security systems, open-source AI architectures, autonomous systems, and IoT-driven cyberattack detection, have significantly enhanced the international visibility of our university's research capacity in AI, cybersecurity, and intelligent systems.

Highlights From the Presented Works:

- **AI-Powered Smart Glasses for the Visually Impaired:** An AI-enhanced smart glasses system offering object detection and secure communication features for visually impaired individuals.
- **Exploring the Open-Source Concept to Enhance the Learning and Exploration Curve of AI Architecture:** A study examining how open-source AI frameworks accelerate learning and experimentation processes.
- **Real-Time Detection of GPS Dimming and Fraud Attacks in UAVs:** An AI-based system designed for real-time detection of GPS dimming and spoofing attacks targeting UAVs.
- **Machine Learning-Based Detection of DDoS Attacks:** An analysis focusing on the detection of Distributed Denial-of-Service attacks using machine learning algorithms.
- **Real-Time Detection and Classification of Cyberattacks in MQTT-Based IoT Networks:** A set of studies addressing real-time detection and classification of cyberattacks in MQTT-based IoT environments, including lightweight AI models deployable on edge devices.
- **Detection of Cyber Attacks with Machine Learning Algorithms:** A comprehensive exploration of machine learning techniques used to identify various cyberattack types.
- **Development of an Autonomous Vehicle System with Remote Control and Cybersecurity Features:** An autonomous vehicle framework enhanced with remote control capabilities and embedded cybersecurity layers.
- **AI-Enhanced Intrusion Detection Using the T-Pot Honeypot System:** An intrusion detection model trained on honeypot-generated attack data using AI-based approaches.
- **Security Evaluation of IoT Systems in Smart Factories: A Fuzzy DEA Approach:** An evaluation of IoT security performance in smart factories using a fuzzy Data Envelopment Analysis method.

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