FEA

MONTHLY BULLETIN

JANUARY 2026

Faculty of Engineering and Architecture

NEWS FROM THE FACULTY

Powering the Future with Technology

ARTIFICIAL INTELLIGENCE

INNOVATION

SCIENCE

TECHNOLOGY

ISTANBUL GELİŞİM UNIVERSITY ACHIEVES SIGNIFICANT SUCCESS IN THE THE 2026 ENGINEERING RANKING.

Istanbul Gelişim University has achieved a significant international success in the field of engineering according to the Times Higher Education (THE) 2026 World University Rankings. Our university has secured a strong global position by ranking in the 601-800 band worldwide in the field of engineering.

When evaluated on a national scale in Turkey, Istanbul Gelişim University ranks 7th among foundation universities in the field of engineering, and has risen to 11th place nationwide. This achievement is a concrete indicator of the high-quality work our university carries out in the fields of engineering education, research capacity, and academic productivity.

These results demonstrate that Istanbul Gelişim University has strengthened its national and international visibility in the field of engineering and is resolutely continuing its approach focused on academic quality.

INDUSTRIAL ENGINEERING

A COUNSELING MEETING WAS HELD FOR FIRST-YEAR STUDENTS.

As part of the 2025-2026 Academic Year Fall Semester, a counseling meeting for first-year students was held by the first-year advisor, Asst. Prof. Binnur AKIF.

The meeting aimed to provide students with detailed information on exam rules, exam duration, exam discipline, and the correct and complete completion and coding of optical forms used in exams, in order to enable them to conduct the exam process more consciously, systematically, and smoothly. In addition, practical demonstrations were given to draw attention to possible errors that students might encounter during exams.

The aim of this counseling meeting is to increase students' awareness of exam procedures, minimize potential problems in the measurement and evaluation process, and contribute to the healthy, systematic, and effective conduct of exams.

ASST. PROF. ERCAN AYKUT AND ASST. PROF. HALİT YAHYA, FACULTY MEMBERS FROM ELECTRICAL AND ELECTRONICS ENGINEERING DEPARTMENT, PARTICIPATED IN THE "EUROPEAN UNION FUNDS AND PROJECT CYCLE MANAGEMENT TRAINING"

Faculty members from Electrical and Electronics Engineering Department, Asst. Prof. Ercan Aykut and Asst. Prof. Halit Yahya, have participated in the ‘European Union Funds and Project Cycle Management Training.’ We congratulate our academics on this important training, which will contribute to our university’s project development capacity.


Türkiye'nin Eğitim Merkezi #buradeğilmemkün

KATILIM BELGESİ

Sn. Halit YAHYA

PREMIUM

Novarge Bilişim Reklam ve Eğitim Hizmetleri A.Ş. tarafından, İstanbul Gelişim Üniversitesi iş birliğiyle 20-23 Ocak 2026 tarihleri arasında İstanbul'da düzenlenen Uygulamalı PCM (Project Cycle Management) Eğitimine katılım sağlanmıştır. Bu eğitim kapsamında katılımcı, proje döngüsü yönetimi yaklaşımı ve mantıksal çerçeve metodolojisi hakkında teorik ve uygulamalı bilgi edinmiştir. Eğitim süreci, problem analizi, hedef belirleme, faaliyet ve risk planlaması çalışmaları ile desteklenmiştir. İşbu katılım belgesi, söz konusu eğitime fiilen katılım sağlandığını göstermek amacıyla düzenlenmiştir.

nova rge

MEHMET KARAAĞAÇ
NOVARGE A.Ş. YK BAŞKANI

THE CONFERENCE PAPER OF ASST. PROF. TURGAY YALÇIN, FACULTY MEMBER OF THE DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING, ON POWER QUALITY ANALYSIS IN SMART GRIDS WAS PRESENTED AT EEMKON 2026

Asst. Prof. Turgay Yalçın from the Department of Electrical and Electronics Engineering, along with Mohammed Ahmed Ali, AbdulWahab Ahmed Jasim Jasim, and Mohamad Wakas Saad, presented three separate scientific papers at the Electrical and Electronics Engineering Congress (EEMKON 2026). These papers addressed real-time noise reduction of ECG signals, short event classification using time-frequency analysis, and detection of smart grid power quality events. We congratulate Asst. Prof. Turgay Yalçın and his collaborating researchers on these high-quality academic works and wish them continued success in their scientific endeavors.

CURRENT TOPICS IN ENGINEERING AND ARCHITECTURE

COMPUTER ENGINEERING

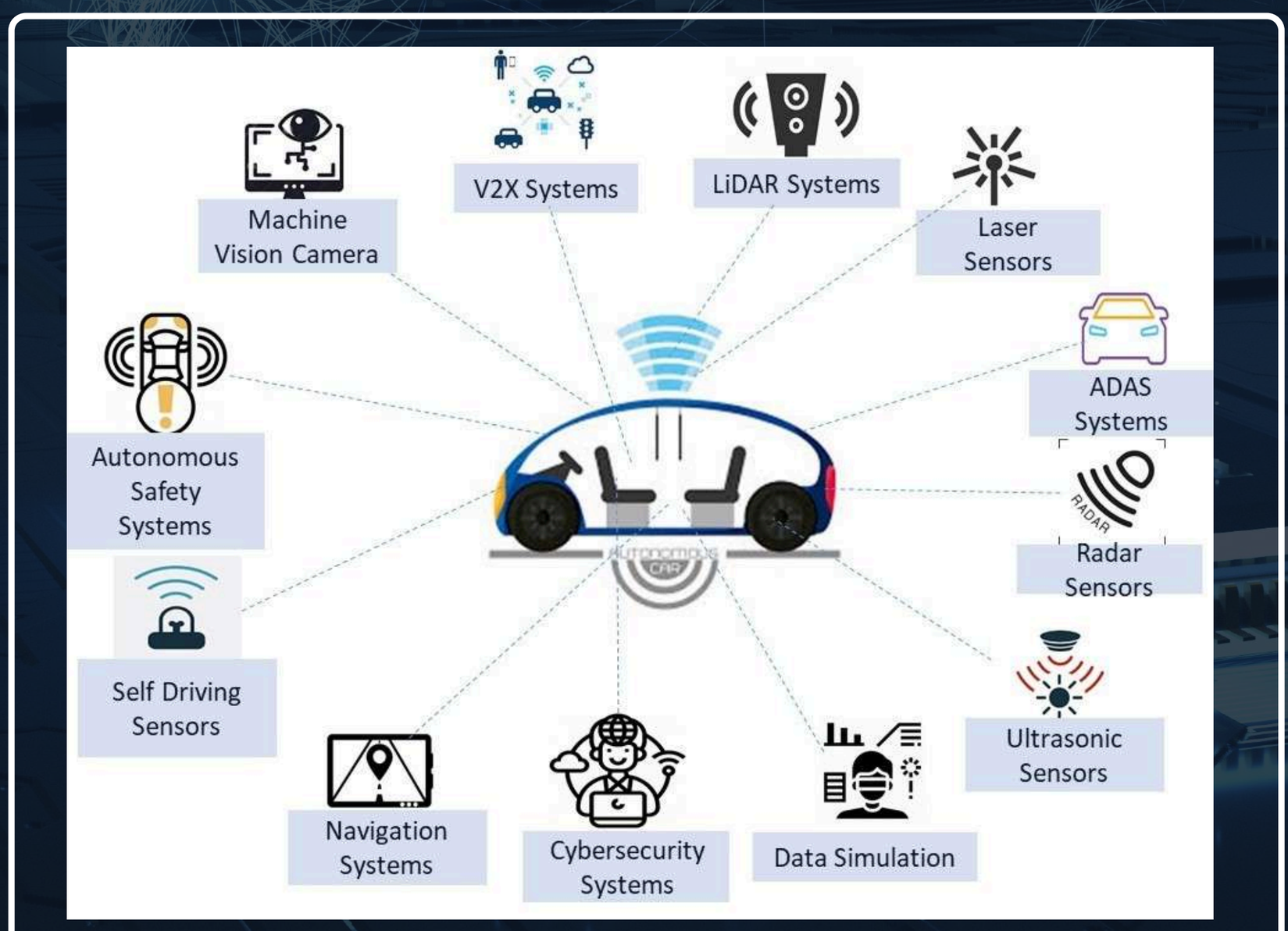
Res. Asst. Hasan YILDIRIM

INTELLIGENT SECURITY APPROACHES IN DIGITAL SYSTEMS. GAIN PROMINENCE

In January 2026, recent developments in the field of computer engineering increasingly focus on intelligent technologies that prioritize the security and sustainability of digital systems. In particular, artificial intelligence based methods are being widely studied due to their capacity to proactively identify vulnerabilities within complex and dynamic computing infrastructures. Recent academic studies demonstrate that machine learning algorithms are effectively utilized for anomaly detection by analyzing network traffic, sensor data, and system behavior patterns. Through these approaches, not only known threats but also previously unseen attack types can be identified via behavioral deviations. Consequently, more adaptive and resilient security mechanisms are being developed beyond traditional signature based solutions.

In parallel, security considerations in edge computing and Internet of Things based architectures constitute a significant topic in the January 2026 agenda. As distributed systems become more prevalent, performing data processing locally rather than relying solely on centralized infrastructures reduces latency and contributes to the protection of critical data. This shift necessitates new design paradigms in computer engineering that emphasize the integration of hardware and software security.

Overall, academic trends at the beginning of 2026 indicate a strong convergence of research efforts around security, artificial intelligence, and autonomous systems. These developments are expected to contribute to the long term advancement of more reliable, scalable, and intelligent digital infrastructures.



INDUSTRIAL ENGINEERING

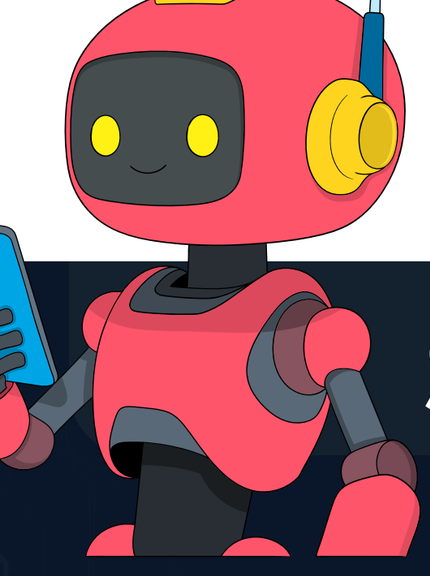
Res. Asst. Duygu TÜYLÜ

LEAN MANUFACTURING IN INDUSTRIAL ENGINEERING: THE STRATEGIC POWER OF PROCESS IMPROVEMENT

In today's competitive business world, simply producing is not enough for businesses; producing at the right time, at the right cost, and with the right quality has become a critical requirement. At this point, the Lean Manufacturing approach, one of the fundamental areas of study in Industrial Engineering, plays an important role in increasing the efficiency of processes. Industrial engineers take an active role in process analysis, data collection, and decision-making phases in lean manufacturing applications. Using techniques such as Value Stream Mapping, work study, and time analysis, the existing system is examined in detail. Then, bottlenecks and non-value-adding activities in the process are identified, and improvement suggestions are developed. Contributions of Process Improvement to the Organization:

- It can shorten production times,
- It can reduce costs,
- It can increase the quality level,
- It can strengthen employee participation and motivation.

These gains directly contribute to businesses achieving a sustainable competitive advantage. In addition, lean thinking can be successfully applied not only in the manufacturing sector but also in the health, logistics, service, and public sectors. Industrial Engineering, by considering systems as a whole, is a key discipline in implementing approaches such as lean manufacturing. When the lean manufacturing concept is combined with the analytical perspective of industrial engineers, it offers powerful and sustainable solutions for organizations. Therefore, process improvement and lean thinking remain an indispensable part of Industrial Engineering education and practice.



SOFTWARE ENGINEERING

Res. Asst. Saim HATİPOĞLU

AI-POWERED SOFTWARE DEVELOPMENT IS RESHAPING THE SOFTWARE INDUSTRY IN 2025

By 2025, AI-powered software development will have gone beyond being a trend in the technology world and become a standard practice in the industry. Globally, software teams are now using AI-based tools as an integral part of their daily workflows; this is leading to significant changes in software production processes in terms of both speed and efficiency.

The use of AI tools in software development processes is becoming increasingly widespread. According to 2025 data, more than 80% of software developers regularly use AI-powered tools or plan to use them soon; many professionals now prefer these tools daily for tasks such as code generation, test preparation, and documentation.

This trend is felt not only in individual use but also on a corporate scale. Global research organizations such as Gartner emphasize that AI-powered automation in software engineering will be critical for sustainable success in the coming years. In this context, leading technology companies see the integration of artificial intelligence into business processes as a strategic priority.

On the other hand, large technology companies are also clearly increasing the role of AI in software production. For example, it is stated that the amount of code generated by AI, or at least supported by AI, has reached a significant share in software giants; this transformation is triggering an evolution towards engineers focusing on more strategic tasks.

Experts state that AI-powered tools increase efficiency in software engineering and that by automating repetitive tasks, engineers can dedicate more time to creative, architectural, and analytical roles. However, it is also reported that some programmers have reservations about trusting the accuracy of AI outputs and that human supervision still plays a critical role.

In Turkey, the adoption rate of artificial intelligence technologies is also increasing. According to TÜİK (Turkish Statistical Institute) data, the number of startups using AI technologies increased significantly in 2025; this shows that the local software ecosystem is developing in parallel with global trends.

In conclusion, AI-powered development in software engineering practice is no longer just an innovation, but is considered the new norm. As this technology is expected to be strategically adopted by more organizations, it is crucial for software teams to invest in human-centered quality and control processes to enhance their skills and ensure the reliability of AI outputs.

ACADEMIC AND SCIENTIFIC ACTIVITIES

INDUSTRIAL ENGINEERING

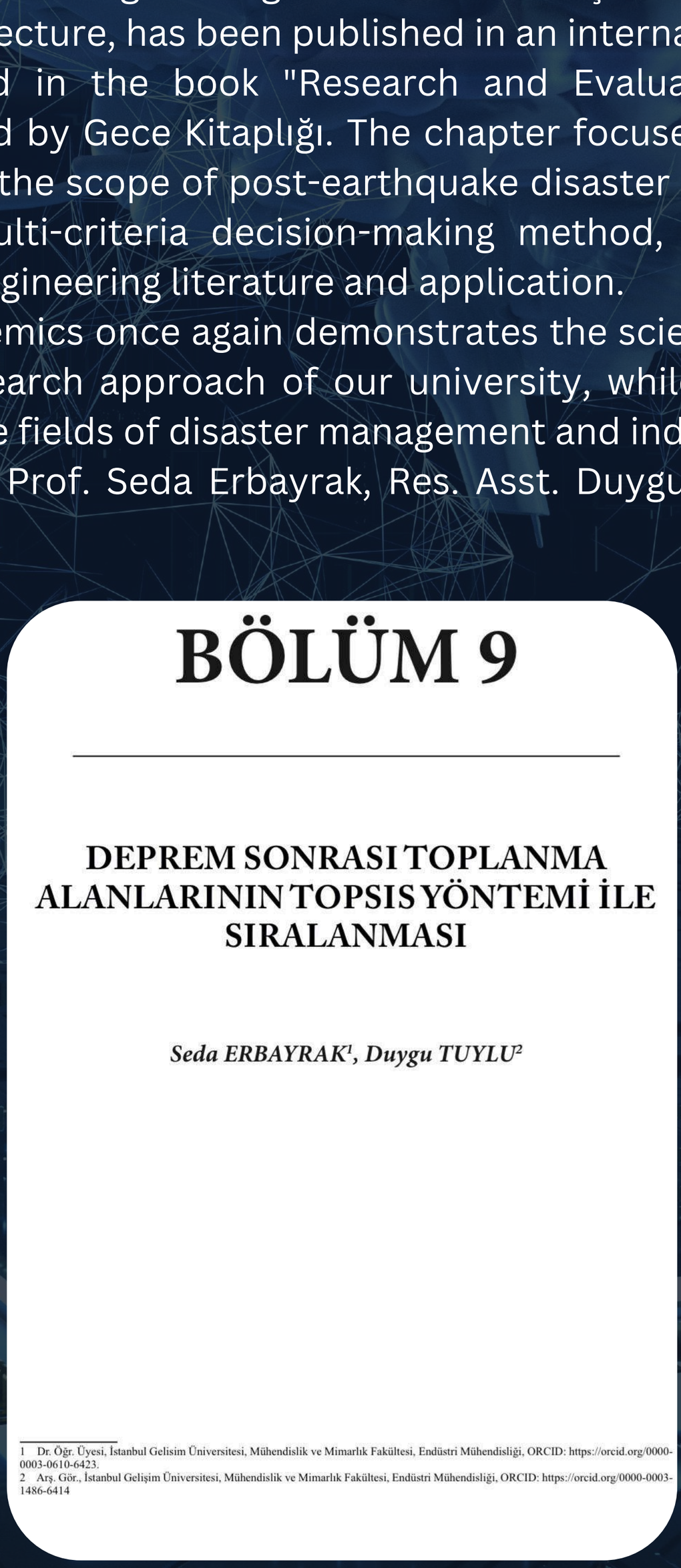
The book chapter by Asst. Prof. Seda Erbayrak and Res. Asst. Duygu Tüylü has been published.

A book chapter titled "Ranking of Post-Earthquake Assembly Areas Using the TOPSIS Method," authored by Asst. Prof. Seda Erbayrak and Res. Asst. Duygu Tüylü from the Department of Industrial Engineering at Istanbul Gelişim University's Faculty of Engineering and Architecture, has been published in an international book.

The study is included in the book "Research and Evaluations in the Field of Engineering," published by Gece Kitaplığı. The chapter focuses on the evaluation of assembly areas within the scope of post-earthquake disaster management using the TOPSIS method, a multi-criteria decision-making method, and offers significant contributions to the engineering literature and application.

This work by our academics once again demonstrates the scientific productivity and socially beneficial research approach of our university, while also adding value to academic studies in the fields of disaster management and industrial engineering.

We congratulate Asst. Prof. Seda Erbayrak, Res. Asst. Duygu Tüylü and wish them continued success.



BÖLÜM 9

DEPREM SONRASI TOPLANMA ALANLARININ TOPSIS YÖNTEMİ İLE SIRALANMASI

Seda ERBAYRAK[1], Duygu TUYLU[2]

1 Dr. Öğr. Üyesi, İstanbul Gelisim Üniversitesi, Mühendislik ve Mimarlık Fakültesi, Endüstri Mühendisliği, ORCID: https://orcid.org/0000-0003-0610-6423.
2 Arş. Gör., İstanbul Gelişim Üniversitesi, Mühendislik ve Mimarlık Fakültesi, Endüstri Mühendisliği, ORCID: https://orcid.org/0000-0003-1486-6414

INDUSTRIAL ENGINEERING

Asst. Prof. Mert YILDIRIM's Research Project Has Been Accepted.

The project titled “Design, Modeling, and Prototype Development of a Four-Axis Additive Manufacturing Robot Arm,” led by Asst. Prof. Mert YILDIRIM, from the Department of Industrial Engineering has been deemed eligible for support by the Scientific Research Projects (BAP) Commission. The aim of the project is to develop a four-axis, high-precision, modular robotic arm for use in additive manufacturing processes. In this context, the goal is to design, model, and produce a prototype of a domestic system with interchangeable end effectors that can be adapted to different industrial applications, addressing the need for low-cost and flexible robotic systems for SMEs. We congratulate Asst. Prof. Mert Yıldırım on this important project and wish him continued success in his academic endeavors.

Dr. Öğr. Üyesi MERT YILDIRIM’IN BAP PROJESİ KABUL EDİLDİ

- İstanbul Gelişim Üniversitesi Mühendislik ve Mimarlık Fakültesi Endüstri Mühendisliği Bölümünde görev yapan Dr. Öğr. Üyesi **Mert YILDIRIM’ın** yürütücülüğünü üstlendiği ***“Dört Eksenli Eklemeli imalat Robot Kolunun Tasarımı, Modellemesi ve Prototipinin Geliştirilmesi”*** başlıklı proje, istanbul Gelişim Üniversitesi ilimsel Araştırma Projeleri P) Komisyonu tarafından lenmeye uygun bulunmuştur.

INDUSTRIAL ENGINEERING

Asst. Prof. Mert YILDIRIM, presented an oral presentation at the 5th International Materials Engineering and Advanced Manufacturing Technologies Congress (IMEAMTC'26).

Asst. Prof. Mert YILDIRIM, participated in the 5th International Materials Engineering and Advanced Manufacturing Technologies Congress (IMEAMTC'26) and presented his study titled "A Comprehensive Review of Advanced and Conventional Manufacturing Techniques for Fiber-Reinforced Polymer Matrix Composites" orally. In his presentation, he comprehensively addressed the traditional and advanced manufacturing techniques used in the production of fiber-reinforced polymer matrix composites, including the advantages and disadvantages of these methods, their annual production volumes, and their industrial application areas. We congratulate Asst. Prof. Mert Yıldırım on his valuable presentation at IMEAMTC'26 and wish him continued success in his academic endeavors.

GÜVEN PLUS GRUP A.Ş. ORP GPGD

CERTIFICATE OF ATTENDANCE

5. ULUSLARARASI MALZEME MÜHENDİSLİĞİ VE İLERİ İMALAT TEKNOLOJİLERİ KONGRESİ

5th INTERNATIONAL MATERIALS ENGINEERING AND ADVANCED MANUFACTURING TECHNOLOGIES CONGRESS

24 OCAK 2026 İSTANBUL - TÜRKİYE – 24 JANUARY 2026 ISTANBUL – TURKIYE

MERT YILDIRIM

A COMPREHENSIVE REVIEW OF ADVANCED AND CONVENTIONAL MANUFACTURING TECHNIQUES FOR FIBER-REINFORCED POLYMER MATRIX COMPOSITES

Yukarıda bilgileri bulunan çalışma ile ilgili kişi(ler) kongremize SÖZEL sunum yaparak katılım sağlamıştır. Kendilerine katılımlarından dolayı teşekkür eder; gelecek bilimsel hayatlarında başarılarının devamını dileriz.

The person(s) concerned with the above information on the study participated in our congress by making an ORAL presentation. We thank them for their contribution; we wish them success in their future scientific lives.

Prof. Dr. Abdülkadir GÜLLÜ — Organizing Committee Member
Prof. Dr. Ali Serdar YÜCEL — Organizing Committee Member
Prof. Dr. Asuman Seda SARAÇOĞLU — Organizing Committee Member
Prof. Dr. Ashok JAMMI — Organizing Committee Member
Prof. Dr. Ayhan AYTAÇ — Organizing Committee Member
Prof. Dr. Çetin YAMAN — Organizing Committee Member
Prof. Dr. Ümran SEVİL — Chairman of the Board
Prof. Dr. Emine Selcen DARÇIN — Organizing Committee Member
Prof. Dr. Gülsen DEMİR — Organizing Committee Member
Prof. Dr. Murat DARÇIN — Organizing Committee Member
Prof. Dr. Salina ÖZPINAR — Organizing Committee Member
Prof. Dr. Tariq MUNEER — Organizing Committee Member
Prof. Dr. Zeki ÇİZMECİOĞLU — Organizing Committee Member
Assist. Prof. Dr. Senai YALÇINKAYA — Organizing Committee Member

CIVIL ENGINEERING

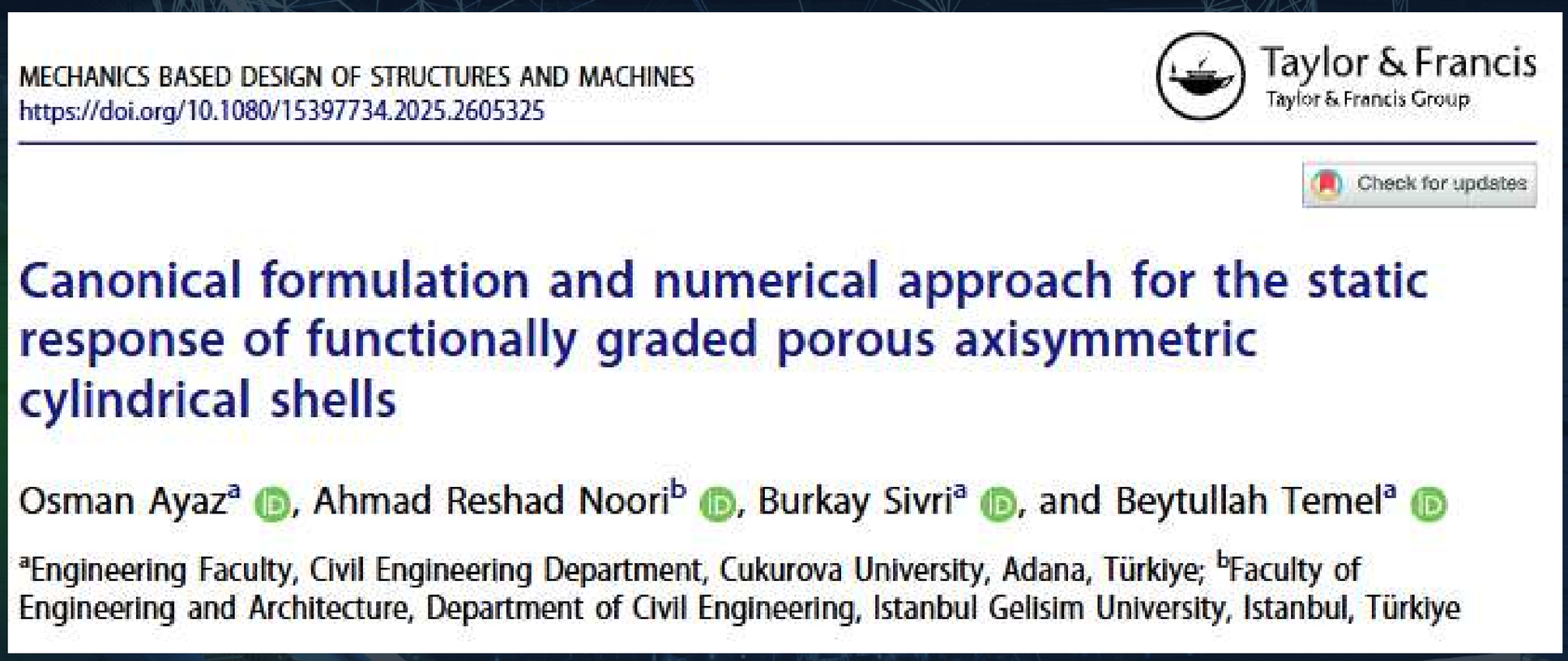
Asst. Prof. Ahmad Reshad NOORI Publishes New Article on Functionally Graded Porous Cylindrical Shells

The new article titled “Canonical formulation and numerical approach for the static response of functionally graded porous axisymmetric cylindrical shells,” authored by Asst. Prof. Ahmad Reshad NOORI, Chair of the Civil Engineering Department, has been published.

The study investigates the static response of functionally graded porous cylindrical shells by considering three different porosity distribution patterns: uniform, symmetric, and non-symmetric. The material is assumed to be heterogeneous through the shell thickness, and the governing equations are derived using the principle of minimum total potential energy based on both Reissner–Mindlin and Kirchhoff–Love shell theories.

The main contributions of the study include the formulation of the governing equations in canonical form and the application of the complementary functions method to evaluate the static response of the shells. The accuracy of the proposed approach is verified through comparisons with results obtained from ANSYS. Parametric investigations demonstrate the influence of porosity coefficient, boundary conditions, porosity distribution type, thickness-to-radius ratio, and theoretical model on the structural response. The results are expected to serve as alternative benchmark solutions for future studies on computational methods and the design optimization of functionally graded porous structures.

We congratulate Asst. Prof. Ahmad Reshad NOORI on this valuable scientific contribution and wish him continued success in his academic research.



MECHANICS BASED DESIGN OF STRUCTURES AND MACHINES
https://doi.org/10.1080/15397734.2025.2605325

Taylor & Francis
Taylor & Francis Group

Check for updates

Canonical formulation and numerical approach for the static response of functionally graded porous axisymmetric cylindrical shells

Osman Ayaz[a], Ahmad Reshad Noori[b], Burkay Sivri[a], and Beytullah Temel[a]

[a]Engineering Faculty, Civil Engineering Department, Cukurova University, Adana, Türkiye; [b]Faculty of Engineering and Architecture, Department of Civil Engineering, Istanbul Gelisim University, Istanbul, Türkiye

MECHATRONICS ENGINEERING

Asst. Prof. Cansu Noberi, a faculty member in the Department of Mechatronics Engineering, has had her article published in an international peer-reviewed journal.

The article titled ‘Comparative Investigation of Hellenistic Period Fortification Structures on Ayasoluk Hill and in Şirince Valley’ by Asst. Prof. Cansu NOBERİ from the Department of Mechatronics Engineering, has been published in the journal Jahreshefte des Österreichischen Archologischen Institutes in Wien.

Asst. Prof. Cansu NOBERİ's new study examines the settlement patterns and spatial relationships on Ayasuluk Hill and its surroundings during the Archaic, Classical and Hellenistic periods. The study investigates the possible connection between the Hellenistic period fortification structures located on Ayasuluk Hill and in the Şirince Valley using archaeological methods. In this context, the walls were dated, and assessments were made regarding construction techniques and raw material sources. SEM and XRD analyses, carried out with contributions from different disciplines, revealed that the building materials used on Ayasuluk Hill and in the Şirince Valley were similar. The findings provide new data on the structural relationship between these two areas.

We congratulate Asst. Prof. Cansu NOBERİ on this important scientific contribution and wish her continued success in her academic endeavours.

esearch Article

Comparative Investigation of Hellenistic Period Fortification Structures in Ayasuluk Hill and Şirince Valley

Cansu NOBERİ, Fırat BARANAYDIN

This is a preprint; it has not been peer reviewed by a journal.

https://doi.org/10.21203/rs.3.rs-3426890/v1

ARCHITECTURE

New article by Architecture Department faculty members Asst. Prof. Nevzat Ömer Saatçioğlu and Assoc. Prof. İlke Ciritci have been published in Karesi Architecture Journal.

The article titled “Identity Crisis in Rural Architecture: The Potential of Straw-Bale Construction Systems in the Context of Sustainability and Local Architecture – The Case of Çatalca”, authored by Assist. Prof. Nevzat Ömer SAATÇİOĞLU and Assoc. Prof. İlke CİRİTCİ, faculty members of the Department of Architecture at Istanbul Gelişim University, has been published in Karesi Architecture Journal. The study examines the potential of straw-bale construction systems as an architectural alternative within the framework of rural development, on-site production, and sustainability, and proposes an innovative approach to strengthening local architecture through the case of Çatalca. We congratulate Assist. Prof. Nevzat Ömer SAATÇİOĞLU and Assoc. Prof. İlke CİRİTCİ on this achievement and wish them continued success in their academic work.

Karesi Journal of Architecture
Karesi Mimarlık Dergisi

KARESİ JOURNAL OF ARCHITE
KARESİ MİMARLIK DER

Volume 4, Number 2 | December 2025
Cilt 4, Sayı 2 | Aralık 2025

KIRSAL MİMARLIKTA KİMLİK BUNALIMI: SÜRDÜRÜLEBİLİRLİK VE YEREL MİMARLIK BAĞLAMINDA ÇATALCA ÖRNEĞİNDE SAMAN-BALYA YAPIM SİSTEMLERİNİN POTANSİYELİ

Nevzat Ömer Saatcioğlu[1], İlke Ciritci[2]

[1] *Istanbul Gelisim University, Department of Architecture, İstanbul, Turkey*
nsaatcioglu@gelisim.edu.tr, 0000-0001-6052-0671
Istanbul Gelisim University, Department of Architecture, İstanbul, Turkey
@gmail.com, 0000-0002-1492-0727

ARCHITECTURE

A new article by Assoc. Prof. İlke Ciritci, a faculty member in the Department of Architecture, has been published.

The article, titled "Comparison of Ventilation Systems in Traditional and Modern Kirkuk Houses," produced from the thesis of graduate student Enji Anwer, has been published in Art/Icle Art and Design Journal, Volume: 5, Issue: 3.

The Aim of the Study: In post-war Iraqi conditions, mass housing was constructed with inadequate lighting and ventilation designs. In contrast, traditional Iraqi houses exhibit the opposite approach in terms of daylight and ventilation. Modern designs that fairly consider and utilize the resources provided by nature should be applicable to housing and urban designs today, just as they are to traditional structures and construction. In this context, this study investigates the responses of contemporary Iraqi houses and traditional Kirkuk houses to changing physical environmental conditions. The aim of the study is to bring to the forefront the building elements and functions of traditional architecture within a utilitarian approach and to raise awareness on the subject. We congratulate Assoc. Prof. İlke CIRITCI on this achievement and wish her continued success in her academic work.

Geleneksel Kerkük Evleri ile Modern Kerkük Evlerinin Havalandırma Sistemlerinin Karşılaştırılması

Enji ANWER*, İlke CİRİTCİ**, Suphi SAATÇİ***

Öz

Çalışmanın Amacı: *Irak koşullarında savaş sonrası, yetersiz ışık ve havalandırma tasarımı ile toplu nutlar inşa edilmiştir. Geleneksel Irak evlerinde ise gün ışığı ve havalandırma açısından tam tersi bir laşım gözlenmektedir. Doğanın sağladığı kaynakların adil şekilde dikkate alındığı ve uygulandığ rn tasarımlar günümüzde de geleneksel yapılarda ve yapılaşmada olduğu gibi konut ve k nda uygulanabilir olmalıdır. Bu doğrultuda söz konusu çalışma yapılan çağdaş Irak konu rkük Evlerinin değişen fiziksel çevre koşulları karşısında tepkilerini araştırmaktadır.*

AERONAUTICAL ENGINEERING

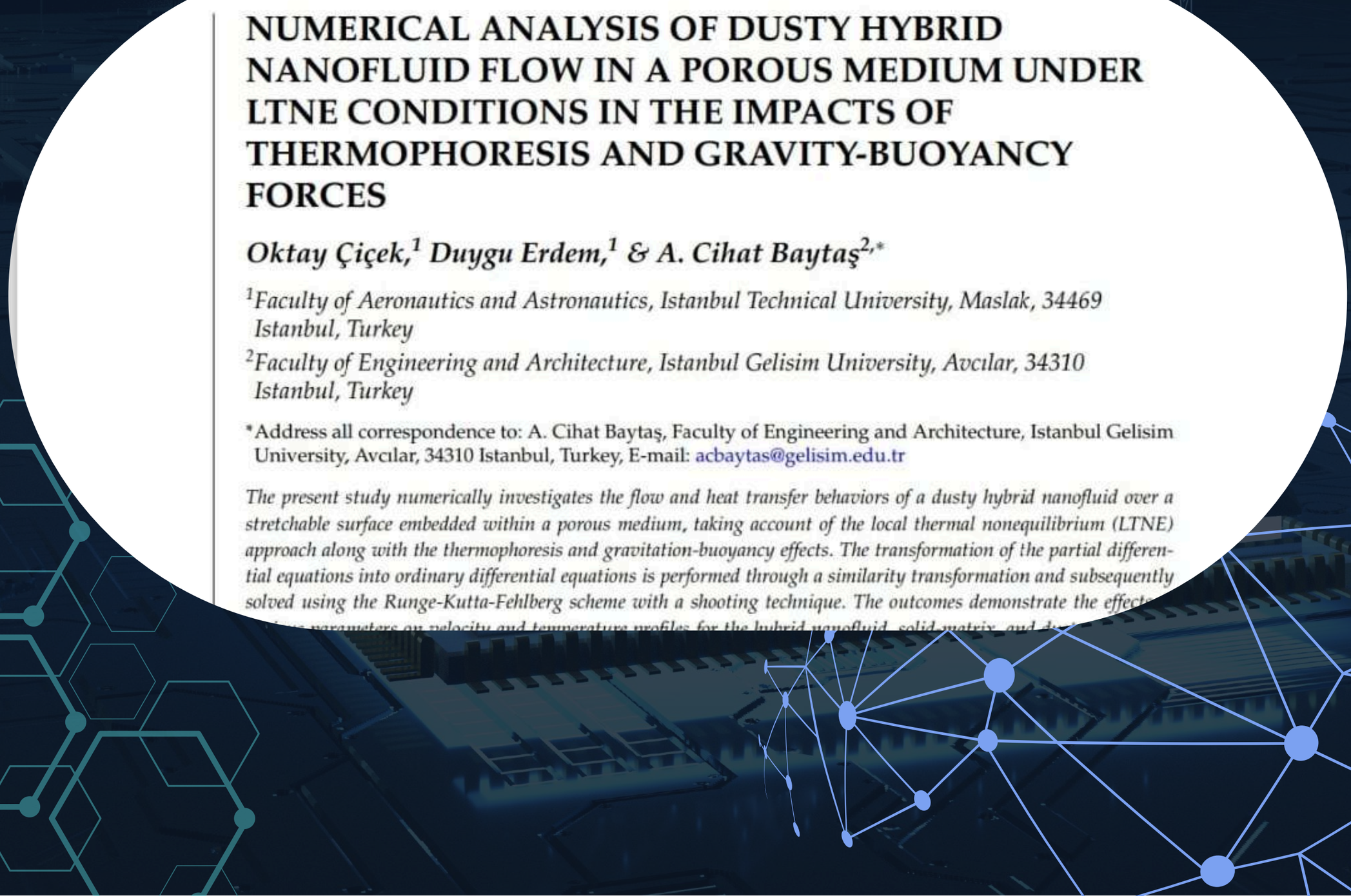
Prof. Ahmet Cihat Baytaş's Study Published in the Journal of Porous Media

Prof. Ahmet Cihat Baytaş, a faculty member of the Department of Aeronautical Engineering at Istanbul Gelisim University, Faculty of Engineering and Architecture, has achieved a significant academic success with his scientific study published in the prestigious international journal, *Journal of Porous Media*.

In the study entitled "Numerical Analysis of Dusty Hybrid Nanofluid Flow in a Porous Medium under LTNE Conditions in the Impacts of Thermophoresis and Gravity-Buoyancy Forces", the flow and heat transfer behavior of hybrid nanofluids and dust particles in porous media were numerically investigated by considering the effects of local thermal non-equilibrium (LTNE), thermophoresis, and gravity–buoyancy forces. The study provides important scientific contributions, particularly for applications in energy systems, environmental engineering, and biomedical engineering.

The high-quality international publications produced by our faculty members continue to strengthen our university's research-oriented and innovative academic vision.

As the Istanbul Gelisim University, we congratulate Prof. Ahmet Cihat Baytaş and wish him continued success in his academic and scientific endeavors.



NUMERICAL ANALYSIS OF DUSTY HYBRID NANOFLUID FLOW IN A POROUS MEDIUM UNDER LTNE CONDITIONS IN THE IMPACTS OF THERMOPHORESIS AND GRAVITY-BUOYANCY FORCES

Oktay Çiçek,[1] Duygu Erdem,[1] & A. Cihat Baytaş[2,]*

[1]*Faculty of Aeronautics and Astronautics, Istanbul Technical University, Maslak, 34469 Istanbul, Turkey*

[2]*Faculty of Engineering and Architecture, Istanbul Gelisim University, Avcılar, 34310 Istanbul, Turkey*

*Address all correspondence to: A. Cihat Baytaş, Faculty of Engineering and Architecture, Istanbul Gelisim University, Avcılar, 34310 Istanbul, Turkey, E-mail: acbaytas@gelisim.edu.tr

The present study numerically investigates the flow and heat transfer behaviors of a dusty hybrid nanofluid over a stretchable surface embedded within a porous medium, taking account of the local thermal nonequilibrium (LTNE) approach along with the thermophoresis and gravitation-buoyancy effects. The transformation of the partial differential equations into ordinary differential equations is performed through a similarity transformation and subsequently solved using the Runge-Kutta-Fehlberg scheme with a shooting technique. The outcomes demonstrate the effects

SHAPE THE FUTURE

IGU FEA

COORDINATOR

Prof.Dr.Bayram ÜNAL

CONTENT EDITORS

Res. Asst. Betül GÖK

Res. Asst. Elif ÖZTÜRK

Res. Asst. Saim HATİPOĞLU

Res. Asst. Melis Özşahin TOKER

Res. Asst. Duygu TÜYLÜ

Res. Asst. Kemal ERTUNÇ

Res. Asst. Muhammed Lütfi TIRABZON

Res. Asst. Hasan YILDIRIM

DESIGN AND EDITING

Res. Asst. Beray İKİNCİ

Res. Asst. Sude Nur BOZİK

CONTACT

(+90) 212 422 70 00

www.mmf.gelisim.edu.tr/en/