

FEA

MONTHLY BULLETIN

JUNE 2026



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MEKON'26 MECHATRONICS STUDENT CONFERENCE WAS HOSTED BY İSTANBUL GELİŞİM UNIVERSITY!

MEKON'26—the International Mechatronics Student Conference, which brought together young researchers, academics, and industry representatives in the field of mechatronics—was held on June 25–26, 2026, hosted by Istanbul Gelişim University. Organized in collaboration between Istanbul Gelişim University and the Association of Mechatronics Engineers, the conference featured special sessions, paper presentations, and academic exchanges over the course of two days.

Covering a wide range of topics—including mechatronics engineering, robotics, automation, control systems, artificial intelligence applications, and autonomous systems—the conference provided students with the opportunity to present their scientific research and engage with expert academics and industry representatives in their field.

Following the opening ceremony, Abdülkadir GAYRETLİ, Chairman of the Board of Trustees at İstanbul Gelişim University, presented plaques and certificates of appreciation to Prof. Dr. Nihat AKKUŞ and Muhammed Abdullah ÖZVER.

During the two-day conference, industry representatives shared their experiences with participants in special sessions, while students and researchers had the opportunity to present their work in an academic setting during concurrent paper sessions. The sessions strengthened scientific interaction among participants from different universities and provided young researchers with the opportunity to receive feedback from leading experts.

MEKON'26, which concluded with high attendance, ended with a closing ceremony and a group photo. The conference reinforced Istanbul Gelişim University's vision of hosting international scientific events and emerged as a key platform bringing together academia and the industry in the field of mechatronics.



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ARTIFICIAL
INTELLIGENCE

NEWS FROM THE FACULTY

TECHNOLOGY

SCIENCE

INNOVATION

Powering the Future with Technology

FACULTY OF ENGINEERING AND ARCHITECTURE ALUMNI TALK HELD

The Alumni Talk, organized by the Faculty of Engineering and Architecture at Istanbul Gelişim University under the theme “Inspiration from Alumni, Experience Shaping the Future” was held on June 3, 2026, at 3:00 p.m. in Auditorium No. 347, J Block.

As part of the event, alumni from departments such as Software Engineering, Civil Engineering, Industrial Engineering, Electrical and Electronics Engineering, and Architecture gathered with current students. The alumni shared their experiences with the students, including their transition from academic life to professional life, the experiences they gained in the industry, and the opportunities and challenges they encountered on their career journeys.

During the discussion, students had the opportunity to listen to the professional experiences of graduates from various disciplines, gaining insights into post-graduation processes, career planning, and industry expectations. The event contributed to students establishing direct communication with faculty alumni and gaining awareness of different professional fields.

At the conclusion of the program, department chairs presented plaques to the alumni who contributed to the event. The alumni's sharing of their experiences and their interactions with the students ensured that the event took place in a productive and inspiring atmosphere.

As the Faculty of Engineering and Architecture, we would like to thank our alumni for their valuable contributions to the event, as well as the students who participated and our academic and administrative staff.



INDUSTRIAL ENGINEERING

THE 2025-2026 INDUSTRIAL ENGINEERING GRADUATION DESIGN PROJECT PRESENTATIONS WERE SUCCESSFULLY COMPLETED.

The 2025-2026 Graduation Design Project presentations organized by the Department of Industrial Engineering within the Faculty of Engineering and Architecture at Istanbul Gelisim University were successfully completed, marking an important milestone in the academic journey of undergraduate students.

As one of the most significant components of the Industrial Engineering undergraduate curriculum, the Graduation Design Project enables students to transform the theoretical knowledge and practical skills they have acquired throughout their education into solutions for real-world challenges.

The project defense sessions were held on June 3–5, 2026, at the university's J-287 Ergonomics Laboratory. During these sessions, students presented their work before jury panels composed of expert faculty members. In presentations lasting approximately 15 minutes, students explained their project objectives, methodologies, findings, and proposed solutions while successfully responding to questions and evaluations from the jury members. Throughout the presentations, students demonstrated strong analytical thinking, problem-solving, research, and communication skills. The projects highlighted the application-oriented nature of Industrial Engineering education and showcased the successful integration of academic knowledge with practical and industrial applications. The innovative solutions proposed by students addressed current industry challenges and reflected their readiness to contribute to the professional world.

The Department of Industrial Engineering at Istanbul Gelisim University remains committed to preparing its students not only with technical expertise but also with the skills required for research, innovation, and sustainable problem-solving. We congratulate all students who successfully completed their Graduation Design Projects and wish them continued success in their professional careers.



TECHNICAL VISIT TO AKÇANSA FACTORY CONDUCTED

The Civil Engineering Department organized a technical visit to the Akçansa factory under the coordination of Assoc. Prof. Anıl Niş and Asst. Prof. Hamit ÖZTÜRK. During the visit, students had the opportunity to tour the factory's technical offices and production facilities and gain detailed information about cement and concrete production processes. Through presentations and on-site observations, students reinforced their theoretical knowledge with practical industrial applications. As part of the technical program, slump tests and concrete compression tests were also demonstrated to students, emphasizing the importance of laboratory and quality control procedures in engineering practice. Such technical visits contribute to students' professional development by enabling direct interaction with the industry. We would like to thank Assoc. Prof. Anıl Niş, Asst. Prof. Hamit ÖZTÜRK, and the Akçansa officials for their valuable contributions to the organization of the visit.



TECH TALKS – 6 EVENT HELD SUCCESSFULLY

As part of the Tech Talks – 6 event organized by the Civil Engineering Department, Dr. Ogan SEVİM, Chairman of the Board of ZETAŞ, met with students.

During the talk titled “Top Down Technique in Basement Construction and Case Applications,” participants were provided with comprehensive information regarding the top-down construction method, implementation processes, and field experiences related to basement structures. Real project examples were discussed throughout the event to increase students’ awareness of practical industry applications.

At the end of the event, a plaque and certificate of appreciation were presented to Dr. Ogan SEVİM by our faculty in recognition of his valuable contributions and insightful presentation.

Such events aim to support students’ professional development by enabling them to interact directly with industry professionals and gain application-oriented knowledge. We thank to Dr. Ogan SEVİM for his valuable contributions.



FINAL REPORT OF TÜBİTAK 1001 PROJECT SUCCESSFULLY ACCEPTED

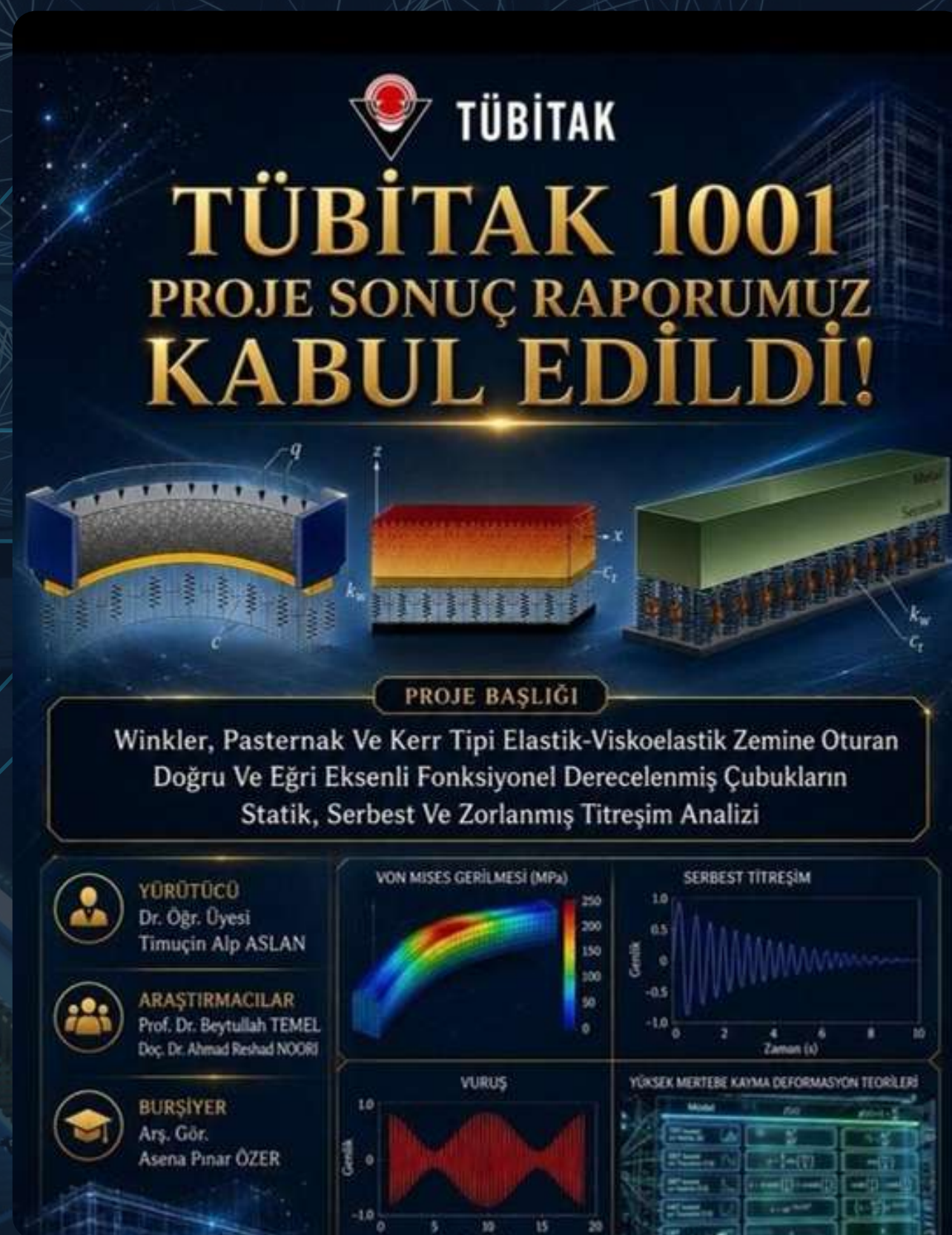
The final report of the TÜBİTAK 1001 research project, in which Assoc. Prof. Ahmad Reshad NOORI, Chair of the Civil Engineering Department, served as a researcher, has been successfully accepted, marking the successful completion of the project.

The project, titled “Static, Free and Forced Vibration Analysis of Straight and Curved Functionally Graded Beams Resting on Winkler, Pasternak and Kerr Type Elastic-Viscoelastic Foundations,” was led by Asst. Prof. Timuçin ALPASLAN. Prof. Beytullah TEMEL and Assoc. Prof. Ahmad Reshad NOORI served as researchers, while Res. Asst. Asena Pinar ÖZER participated as a scholarship holder.

The project investigated the static and dynamic behavior of straight and curved functionally graded beams resting on different foundation models using advanced analytical methods. The findings are expected to contribute to structural mechanics, vibration analysis, and advanced engineering applications.

The successful completion of a TÜBİTAK 1001 project represents an important achievement in sustaining high-quality scientific research. With the acceptance of the final report, the project has officially reached its objectives and been successfully completed.

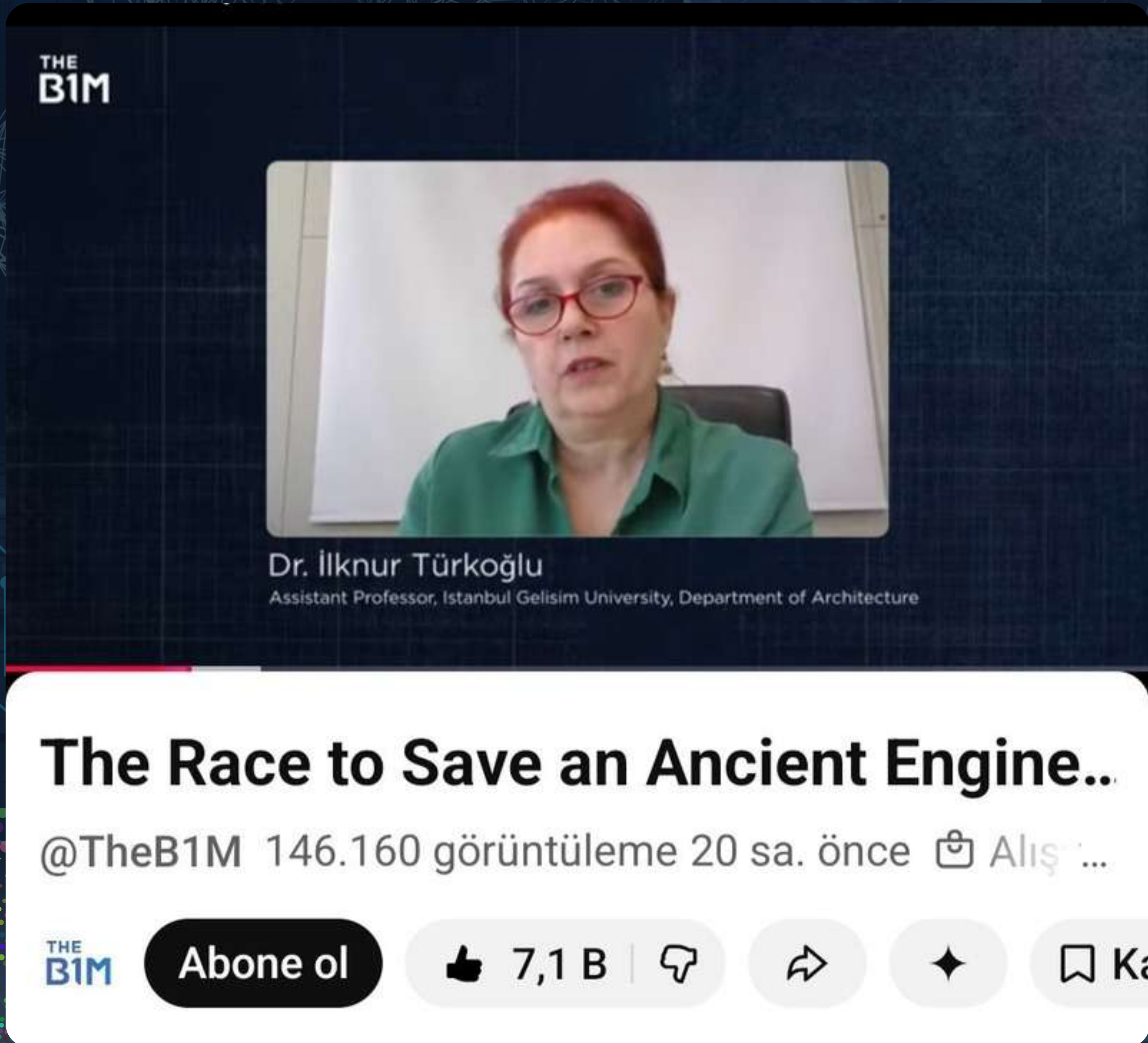
We congratulate all members of the research team and wishes them continued success in their future scientific endeavors.

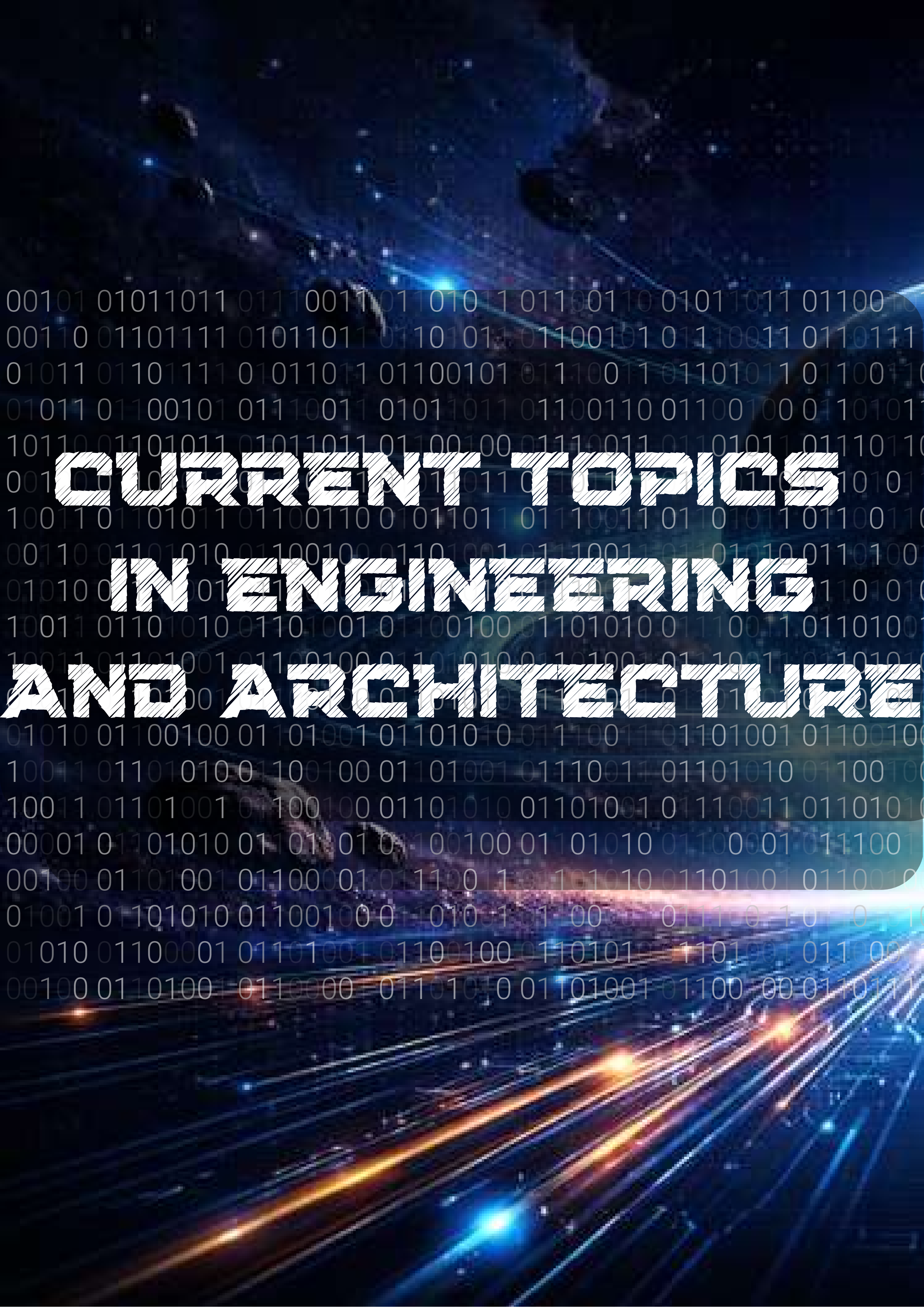


ARCHITECTURE

ASST. PROF. İLKNUR TÜRKOĞLU, APPEARED AS A GUEST IN A DOCUMENTARY ABOUT HAGIA SOPHIA PRODUCED BY THE INTERNATIONALLY ACCLAIMED B1M CHANNEL.

Asst. Prof. İlknur Türkoğlu provided information on Hagia Sophia in a program produced by the British B1M YouTube channel, known for its documentaries on architecture and engineering and which has millions of followers. In the first part of the documentary, Türkoğlu explained the priceless historical and architectural value of the 1500-year-old Hagia Sophia, considered a common heritage of humanity, and emphasized the importance of preserving Hagia Sophia, which has been repeatedly damaged by severe earthquakes throughout its history. In later parts of the documentary, Türkoğlu, along with two other experts, also provided information about the ongoing restoration work at Hagia Sophia. Hagia Sophia, which has managed to remain standing since its construction in 537, serves as a public library, both in terms of architectural techniques and in terms of world and Istanbul history. We would like to thank Asst. Prof. İlknur Türkoğlu and wish her continued success.





CURRENT TOPICS IN ENGINEERING AND ARCHITECTURE

COMPUTER ENGINEERING

Res. Asst. Hasan YILDIRIM

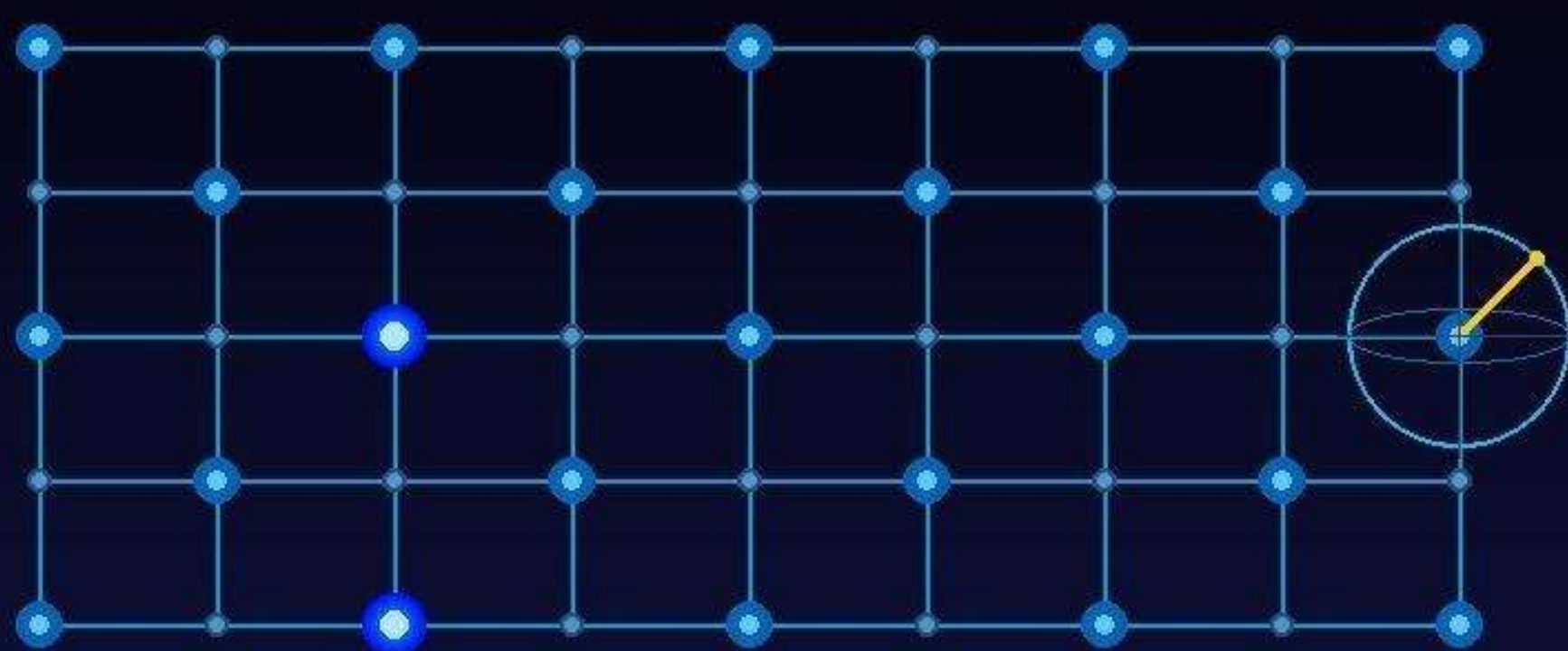
QUANTUM COMPUTING MOVES FROM THEORY TO PRACTICE: THE BOUNDARIES OF CLASSICAL COMPUTATION ARE BEING SURPASSED

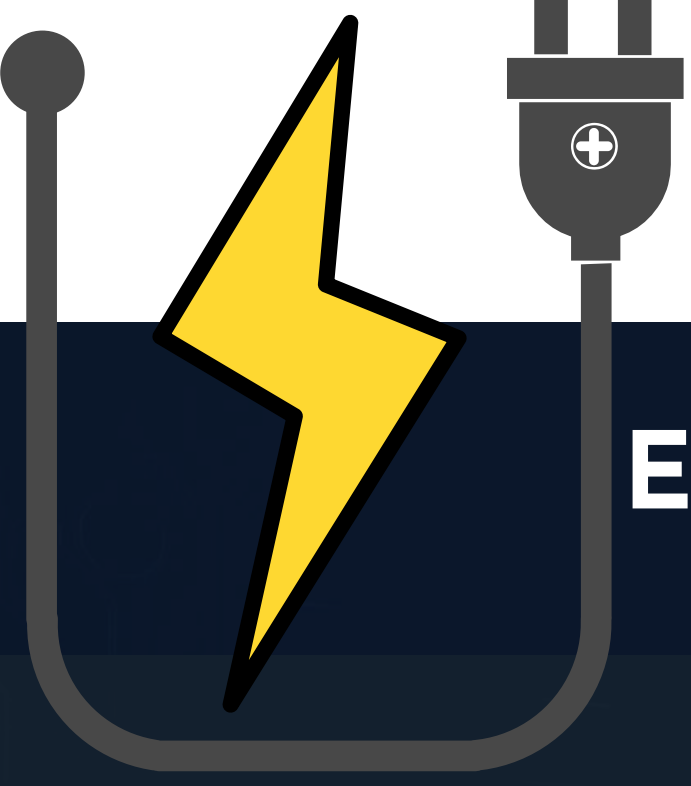
One of the most profound transformations in the history of computer engineering is now unfolding. Quantum computing, which for decades remained a theoretical potential confined to laboratory settings, has begun to demonstrate concrete performance advantages over classical computers in real-world applications as of 2025. The concept of quantum advantage has evolved from an academic assertion into a measurable, reproducible reality that engineering is actively building upon. This transition is the product of simultaneous progress not only in hardware, but across the dimensions of algorithms, error correction, and software architecture.

Among the most striking developments in this field is the verified demonstration that quantum systems can outperform classical high-performance computing in medical device simulations. Similarly, quantum annealing approaches have reduced industrial production scheduling computations from tens of minutes to mere seconds. These examples demonstrate that quantum advantage is valid not only in niche domains such as cryptography or physics simulation, but across a wide spectrum of engineering applications. The year 2025 was designated the International Year of Quantum Science and Technology by the United Nations — a recognition that has further amplified the global momentum of investment and research in this field.

From a technical standpoint, it is evident that progress extends well beyond simply increasing qubit counts. Reducing error rates to the level of one in one hundred thousand per operation, implementing real-time error decoding mechanisms, and developing algorithmic methods that reduce quantum error correction overhead by up to one hundredfold represent the three critical milestones underpinning this advancement. For computer engineers, this means that the quantum software layer and the design of hybrid classical-quantum algorithms have become a critical engineering discipline. Not merely understanding the principles of superposition and entanglement in theory, but developing the engineering competency to translate these principles into practice within the constraints of real hardware, is emerging as an increasingly indispensable imperative.

The integration of quantum computing into computer engineering curricula and research agendas is likewise gaining momentum. Sub-disciplines such as quantum circuit design, quantum machine learning, and quantum cryptography are now active research areas not only within physics departments, but across computer engineering programs as well. The ultimate message of this transformation is unambiguous: quantum computing is no longer the technology of the future — it is the engineering challenge of today; and engineers equipped with the capacity to address this challenge will be the architects of the most decisive technological breakthroughs of the decade ahead.





ELECTRICAL AND ELECTRONICS ENGINEERING

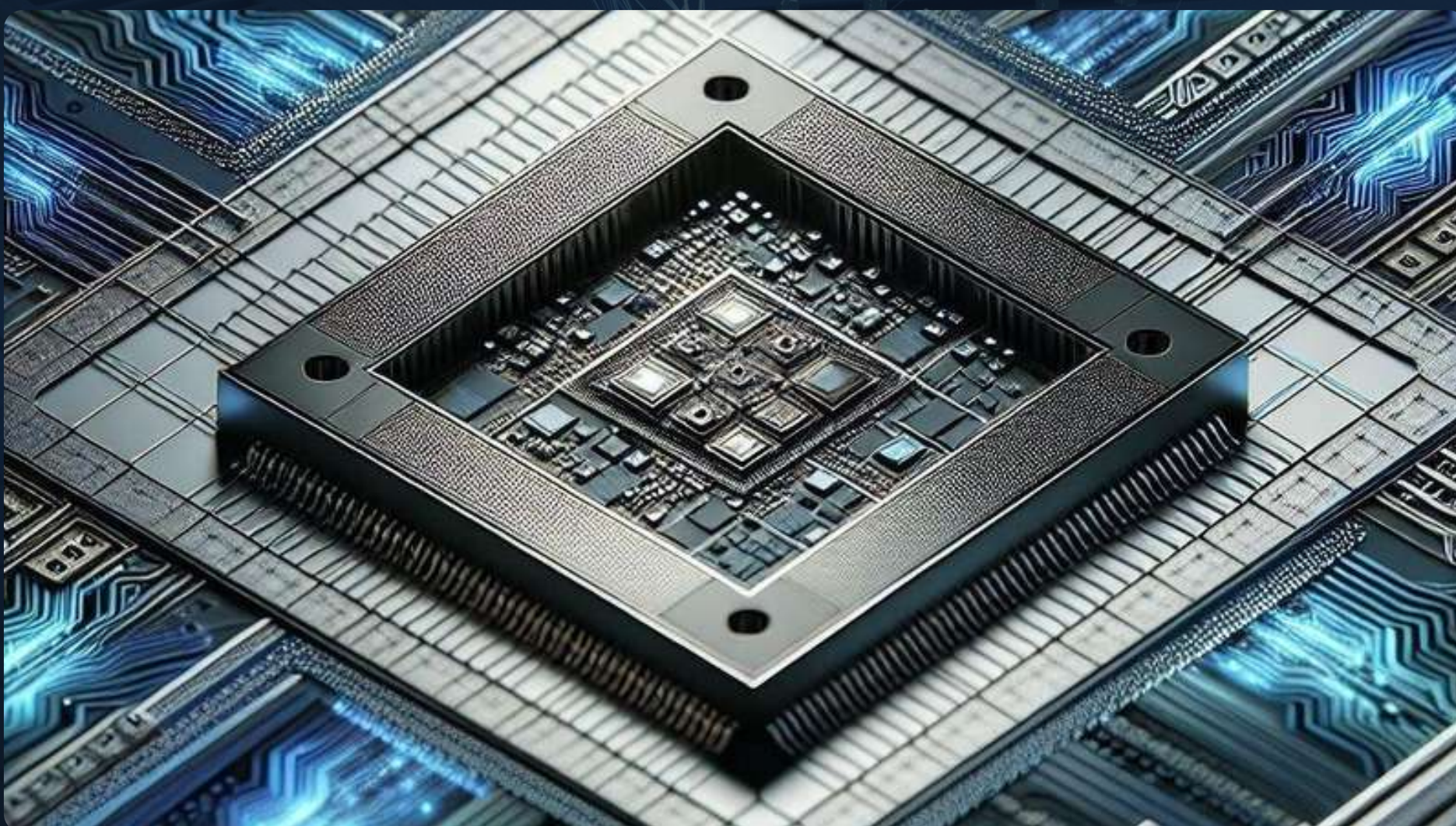
Res. Asst. Elif ÖZTÜRK

NEXT-GENERATION CHIP TECHNOLOGY FOR ARTIFICIAL INTELLIGENCE: IBM ACHIEVES A BREAKTHROUGH BELOW 1 NANOMETER

As developments in the semiconductor field continue unabated in the world of technology, IBM announced in June 2026 that it had achieved a major breakthrough for artificial intelligence and high-performance computing systems. By developing the world's first semiconductor chip technology capable of being manufactured at a scale of less than 1 nanometer, the company has ushered in a new era in chip production. Featuring circuit elements measuring approximately 0.7 nanometers, this new technology aims to deliver much higher transistor density, lower power consumption, and greater processing capacity compared to previous-generation processors. The newly developed chip architecture contains approximately 100 billion transistors. The reduction in transistor size makes it possible to fit more circuit elements onto the same surface area. As a result, processors operate at higher speeds while consuming less energy and generating less heat. These features are particularly important for large language models, image processing systems, and data analysis platforms used in today's rapidly evolving artificial intelligence applications.

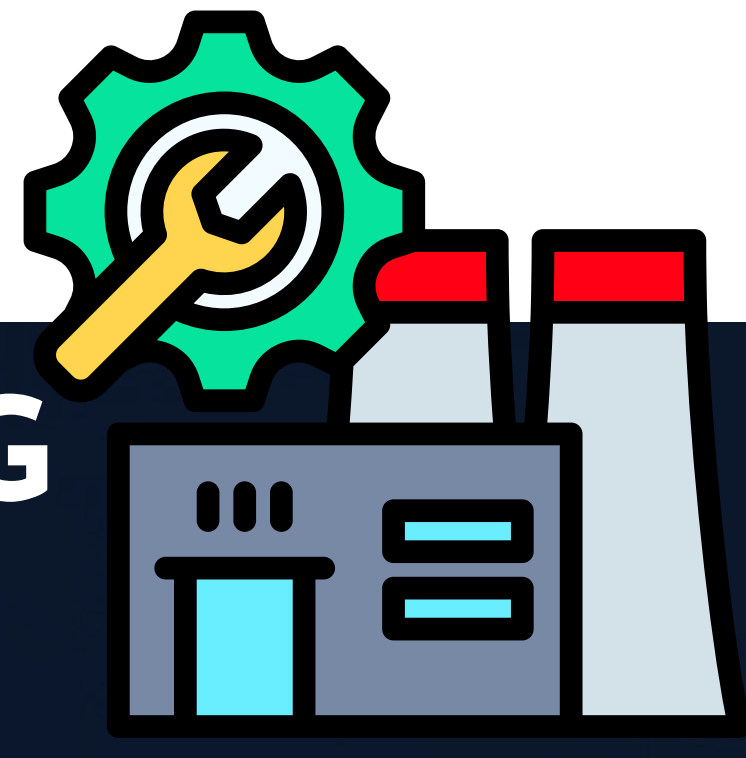
The new technology developed by IBM is based on a three-dimensional "Nanostack" architecture. Unlike traditional planar chip designs, this architecture increases data transfer speeds and reduces energy losses by arranging transistors in vertical layers. Additionally, signal paths are shortened, minimizing latency. This allows for both high performance and energy efficiency to be achieved simultaneously.

According to technical data shared by the company, the new-generation chips offer approximately 50% higher processing performance compared to current 2-nanometer technology, while delivering energy savings of up to 70% under the same processing load. These gains are particularly noteworthy for large data centers. As the use of artificial intelligence applications spreads worldwide and data center electricity consumption rises rapidly, highly energy-efficient processors will both reduce operating costs and contribute to lowering carbon emissions.



INDUSTRIAL ENGINEERING

Res. Asst. Duygu TÜYLÜ



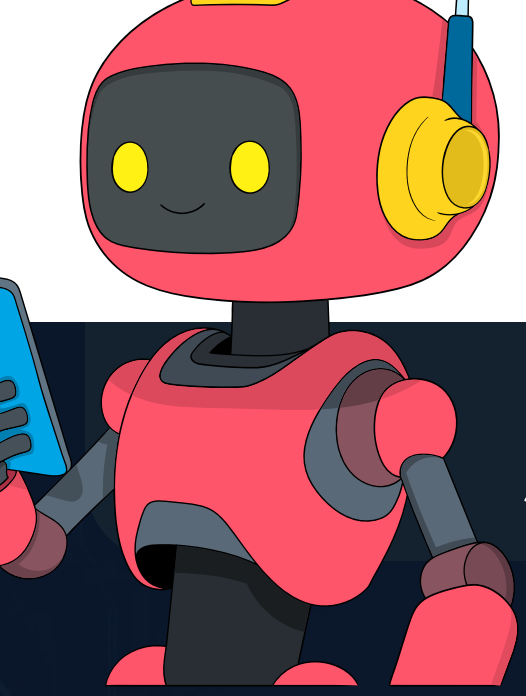
THE FUTURE OF INDUSTRIAL ENGINEERING: A WORLD DESIGNED TOGETHER BY HUMANS AND TECHNOLOGY

In today's world, where digital transformation is accelerating, businesses are seeking not only ways to produce more efficiently, but also to adapt to changing customer expectations, sustainability goals, and global competition. In this transformation process, Industrial Engineering plays a critical role in the strategic decision-making processes of businesses thanks to its structure that addresses systems from a holistic perspective.

In the past, Industrial Engineering focused on increasing the efficiency of production lines and reducing costs, but today it has a much broader scope. Working closely with many disciplines such as data analytics, artificial intelligence, big data, simulation, supply chain management, and sustainability applications, industrial engineers not only improve existing systems but also design the systems of the future.

The Industry 5.0 approach, which has come to the fore in recent years, combines technological developments with the principles of human-centeredness, sustainability, and resilience. This approach aims for technology to support human capabilities, not replace humans. Thus, it aims to establish a stronger collaboration between humans and technology in production and service systems. The production and service systems of the future will be smarter, more sustainable, and more human-centered. One of the professions that will shape the future is undoubtedly Industrial Engineering. The knowledge and skills we acquire as students today will play a significant role in designing the businesses, cities, and lifestyles of tomorrow. It should not be forgotten that Industrial Engineering is not only a discipline that improves processes, but also one of the keys to building a more efficient, sustainable, and livable future.





SOFTWARE ENGINEERING

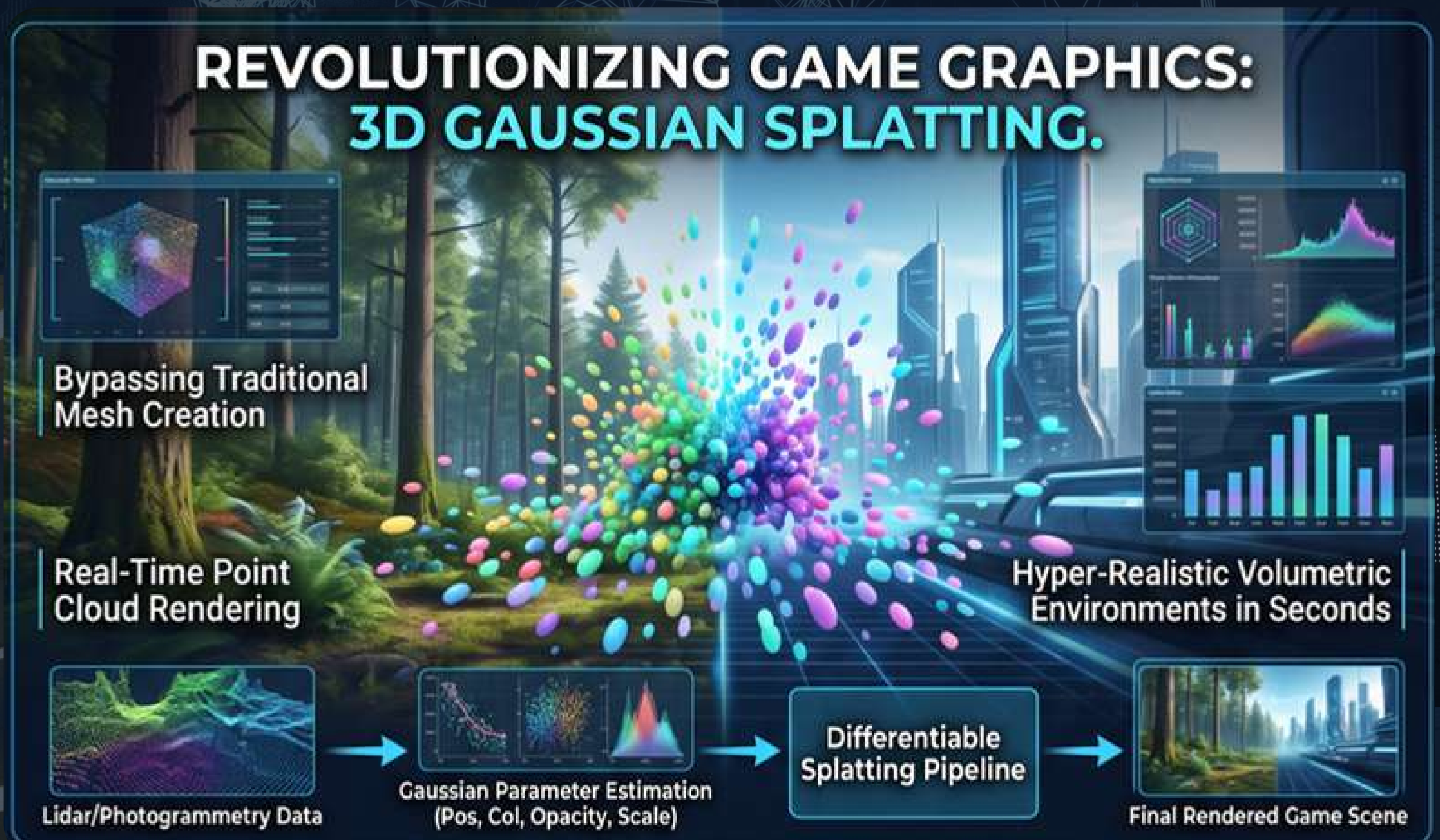
Res. Asst. Enis ÖZBEK



A NEW STANDARD IN GAME GRAPHICS IN 2026: 3D GAUSSIAN SPLATTING

As of 2026, the gaming industry has transitioned from traditional polygon-based modeling to 3D Gaussian Splatting technology, which renders real-world scenes in real time directly from data points rather than using heavy 3D meshes. This volumetric paradigm, which reduces manual modeling, texturing, and baking processes that used to take weeks to mere seconds, cuts environment design times by 60% and optimization workloads by 45%, allowing developers to devote more time to level design. Thanks to this transformation, vast open worlds can now be rendered at stable frame rates and with high-end photorealism, without being hindered by performance bottlenecks caused by high polygon counts.

However, this technological revolution also raises serious technical debates regarding dynamic interaction and collision/physics management. The fact that scenes composed of point clouds conflict with rigid-body physics creates the risk of generating “ghostly environments that look perfect but where collision detectors don’t work,” which in turn complicates character interactions and object destruction. Consequently, the role of technical artists and engineers today is evolving from creating models from scratch toward “volumetric scene curation”—optimizing scanned data—and the ability to blend Gaussian technology with the physical performance required by game mechanics.





ACADEMIC AND SCIENTIFIC ACTIVITIES

INDUSTRIAL ENGINEERING

The Patent of Asst. Prof. Mert YILDIRIM Has Been Registered by TURKPATENT

The invention titled “Composite Material Reinforced with Jute Fiber and False Banana Fiber, Production Method and System” developed by Asst. Prof. Mert Yildirim, a faculty member of the Department of Industrial Engineering at the Faculty of Engineering and Architecture of Istanbul Gelisim University, has been registered by the Turkish Patent and Trademark Office as an examined patent under patent number TR 2025 021970 for a period of 20 years.

Global climate change and the depletion of fossil resources are directing industry toward environmentally friendly, sustainable, and renewable material solutions. In this context, natural fibers offer an eco-friendly alternative to synthetic fibers due to their low cost, lightweight structure, sustainability, and biodegradability.

The ability of plant-based natural fibers to absorb carbon dioxide (CO₂) through photosynthesis during their growth processes contributes to reducing the product carbon footprint and environmental impacts of biocomposite materials, particularly those developed with polymer matrices. For this reason, natural fiber-reinforced composites have gained increasing importance in both academic research and industrial applications in recent years.

This invention offers an environmentally friendly, sustainable, and value-added engineering solution for utilizing natural fibers such as jute fiber and Abyssinian banana fiber in composite material production. In this respect, the invention aligns with the United Nations Sustainable Development Goals, particularly Industry, Innovation and Infrastructure (SDG 9), Responsible Consumption and Production (SDG 12), and Climate Action (SDG 13).

We congratulate our faculty member and wish him continued success in his work.



CIVIL ENGINEERING

Civil Engineering Department PhD Student Successfully Completed Her Dissertation

Ruba Safi ABDULLAH, a PhD student in the Civil Engineering Department, has successfully completed her doctoral dissertation titled “Investigation of the Effects of Autonomous Vehicles on Traffic Behavior, Safety, and Environment in Mixed Traffic,” under the supervision of Prof. Mustafa KARAŞAHİN.

The dissertation comprehensively examined the role of autonomous vehicles in mixed traffic environments, focusing on traffic flow, driving behavior, traffic safety, and environmental impacts. The study also evaluated the potential contributions of autonomous vehicle technologies to transportation systems and their future implications for traffic management.

This research provides valuable contributions to the fields of intelligent transportation systems and sustainable traffic management while offering important insights into the future of autonomous vehicle technologies in engineering applications.

We congratulate Dr. Ruba Safi ABDULLAH and her supervisor Prof. Mustafa KARAŞAHİN on this significant academic achievement and wishes them continued success in their academic endeavors.



CIVIL ENGINEERING

Civil Engineering Department Chair Participated as a Speaker in a TÜBİTAK-Supported Scientific Talk

Assoc. Prof. Ahmad Reshad NOORI, Chair of the Civil Engineering Department, participated as a speaker in a scientific talk organized within the scope of the TÜBİTAK 1001 – Scientific and Technological Research Projects Support Program.

In the talk titled “Advanced Static Analysis Techniques for Straight and Curved Bars,” current approaches in structural mechanics and static analysis were discussed, and participants were informed about advanced analysis techniques related to the behavior of straight and curved structural systems.

The event emphasized the importance of analytical and numerical methods in solving engineering problems and highlighted the role of advanced engineering analyses in both academic research and practical applications.

Such scientific events aim to help students and researchers stay informed about contemporary engineering approaches and developments.

We congratulate Assoc. Prof. Ahmad Reshad NOORI for his valuable scientific contributions and wishes him continued success.



CIVIL ENGINEERING

Civil Engineering Department Graduate Met with Students at the Alumni Talk Event

As part of the Alumni Talk event organized by the Faculty of Engineering and Architecture, Barış HARMAN, a graduate of the Civil Engineering Department, met with our students.

During the event, our graduate shared his experiences from student life, career journey, and professional life with the participants. He also provided recommendations regarding professional development, career planning, and industry expectations while answering students' questions.

At the end of the event, a plaque was presented to Barış HARMAN by our Department Chair, Assoc. Prof. Ahmad Reshad NOORI, in recognition of his valuable contributions and presentations.

Such events aim to help students benefit from the experiences of graduates and gain closer insight into professional life and industry expectations.

We would like to thank Barış HARMAN for participating in the event and wishes him continued success in his professional career.



CIVIL ENGINEERING

Erasmus+ Academic Visit from Bangladesh to Civil Engineering Department

The Civil Engineering Department hosted a visiting faculty member from Bangladesh within the scope of the Erasmus+ academic mobility program.

During the visit, lectures, academic discussions, and educational activities were organized for our students. The program provided students with the opportunity to gain insight into different academic perspectives and international experiences.

In addition, discussions were held regarding academic collaborations, international projects, and potential future joint studies. Such international academic mobility programs aim to strengthen global academic interaction among students and academic staff.

We would like to thank the visiting faculty member who joined our department through the Erasmus+ academic mobility program.



CIVIL ENGINEERING

Civil Engineering Faculty Member Appointed as an International External Examiner

Assoc. Prof. Metin MEHMETOĞLU, a faculty member of the Civil Engineering Department, has been appointed as an External Examiner for the Bachelor's Program in Civil Engineering (Construction Materials) at the College of Engineering, University of Anbar, Iraq.

Within the scope of this appointment, Assoc. Prof. Metin MEHMETOĞLU conducted a comprehensive evaluation of the academic program in line with international quality assurance standards. The review covered course content, assessment and examination procedures, grading practices, quality assurance mechanisms, accreditation-related activities, and the implementation of the Bologna Process. He also provided recommendations to support the continuous improvement of the program and its compliance with international higher education standards.

External examiner appointments play a significant role in strengthening quality assurance systems and enhancing academic programs in accordance with internationally recognized standards.

We congratulate Assoc. Prof. Metin MEHMETOĞLU on this prestigious international appointment and wishes him continued success in his academic career.



CIVIL ENGINEERING

Civil Engineering PhD Student Successfully Passed the Doctoral Qualifying Examination

Benham SHOKOUHI, a PhD student supervised by Assoc. Prof. Ahmad Reshad NOORI, Chair of the Civil Engineering Department, has successfully passed his doctoral qualifying examination.

The doctoral qualifying examination, an important milestone that evaluates a student's academic knowledge, research competence, and readiness to conduct doctoral research, was successfully completed.

The examination committee consisted of Asst. Prof. Burak TOYDEMİR from Nişantaşı University, Asst. Prof. Ali ETE from MEF University, and Civil Engineering Department faculty members Asst. Prof. Sajedeh Norozpour SIGAROODI and Assoc. Prof. Anıl NİŞ. Following the committee's evaluation, Benham SHOKOUHI successfully passed the qualifying examination and became eligible to continue his doctoral research.

We congratulate Benham SHOKOUHI and his supervisor, Assoc. Prof. Ahmad Reshad NOORI, on this important academic achievement and wishes them continued success.



CIVIL ENGINEERING

Civil Engineering PhD Student Successfully Passed the Doctoral Qualifying Examination

Ahmad Khaled ASLAMI, a PhD student supervised by Asst. Prof. Yasin PAŞA from the Civil Engineering Department, has successfully passed his doctoral qualifying examination.

The doctoral qualifying examination, an important milestone in doctoral education that evaluates a student's academic knowledge, research competence, and readiness to conduct doctoral research, was completed successfully.

The examination committee consisted of Asst. Prof. Sead Ahmad SALİH from Istanbul Kültür University, Asst. Prof. Ferruh MAHNAMFAR from Nişantaşı University, and faculty members of the Civil Engineering Department, Asst. Prof. Mustafa NURİ and Asst. Prof. Mesut BARIŞ. Following the committee's evaluation, Ahmad Khaled ASLAMI successfully passed the qualifying examination and became eligible to continue his doctoral research.

We congratulate Ahmad Khaled ASLAMI and his supervisor, Asst. Prof. Yasin PAŞA, on this important academic achievement and wishes them continued success.



CIVIL ENGINEERING

Civil Engineering Master's Students Successfully Completed Their Thesis Defenses

Master's students Hussein Mohammed Shakir MNEDEH and Hussein Allawi Salloom AL-ATTABI, supervised by Assoc. Prof. Metin MEHMETOĞLU from the Civil Engineering Department, have successfully completed their thesis defenses and fulfilled the requirements for graduation.

Hussein Mohammed Shakir MNEDEH completed his thesis titled “Synergetic Assessment of Metakaolin and Fly Ash Based SIFCON Composites,” which investigated the combined effects of metakaolin and fly ash on the performance of Slurry Infiltrated Fiber Concrete (SIFCON) composites. The study evaluated the contribution of different mineral admixtures to the mechanical properties and durability of the material, providing valuable insights into sustainable and high-performance construction materials.

Hussein Allawi Salloom AL-ATTABI completed his thesis titled “Strength and Durability Properties of Steel and Glass Fibers Reinforced Mortars Containing Various Waste Materials.” His research examined the strength and durability performance of steel- and glass-fiber-reinforced mortars incorporating various waste materials, highlighting their potential contribution to sustainable and environmentally friendly construction materials.

Both theses make valuable contributions to the fields of sustainable construction materials, advanced concrete technologies, and environmentally responsible engineering applications.

The Civil Engineering Department congratulates Hussein Mohammed Shakir MNEDEH, Hussein Allawi Salloom AL-ATTABI, and their supervisor, Assoc. Prof. Metin MEHMETOĞLU, and wishes them continued success in their academic and professional careers.



CIVIL ENGINEERING

Civil Engineering Master's Students Successfully Completed Their Thesis Defenses

Master's students Muratcan İLGÜZ, Özge İLGÜZ, and Durmuş YETİŞİR, supervised by Asst. Prof. Yasin PAŞA from the Civil Engineering Department, have successfully completed their thesis defenses and fulfilled the requirements for graduation.

Muratcan İLGÜZ completed his thesis titled "Investigation of Rainwater Harvesting and Its Potential Use in Toilet Reservoirs in Residential Complexes: The Case of Bizimkent Housing Estate in Beylikdüzü," which evaluated the potential of rainwater harvesting systems for domestic water reuse and efficient water resource management.

Özge İLGÜZ completed her thesis titled "Rainwater Harvesting in Sustainable Urbanization and Disaster Management: A Case Study of Beylikdüzü Yaşam Valley for Landscape Irrigation and Emergency Water Storage." The study examined the role of rainwater harvesting in sustainable urban planning and emergency preparedness by assessing its applicability for landscape irrigation and emergency water supply.

Durmuş YETİŞİR completed his thesis titled "Investigation of the Effects of Numerical Methods Used in Dam Breach Analyses on Flood Inundation Maps: The Case of Çubuk II Dam." His research analyzed how different numerical modeling approaches influence flood inundation mapping and contribute to dam safety and flood risk management.

These theses provide valuable contributions to sustainable water management, disaster risk reduction, and hydraulic engineering while offering practical solutions to contemporary engineering challenges.

We congratulate Muratcan İLGÜZ, Özge İLGÜZ, Durmuş YETİŞİR, and their supervisor, Asst. Prof. Yasin PAŞA, and wishes them continued success in their academic and professional careers.



MECHATRONICS ENGINEERING

Final Year Project Presentations in the Department of Mechatronics Engineering Have Been Completed

The presentations for the MEK498 - Final Year Project course, conducted within the Department of Mechatronics Engineering at the Faculty of Engineering and Architecture, Istanbul Gelişim University, took place in two separate sessions on June 15 and June 17.

The first session of the presentations, held in the J-209 Mechanical/Industrial Automation Laboratory, took place on June 15 with Prof. Hamdi Alper ÖZYİĞİT, Assoc. Prof. Engin ERBAYRAK, Asst. Prof. Cansu NOBERİ, and Asst. Prof. Gökçe KARACAYILMAZ as jury members. During this session, students who had been working on their projects under the guidance of their faculty advisors presented their final projects.

The second session was held on June 17, with Assoc. Prof. Kenan ŞENTÜRK, Assoc. Prof. Haydar İzzettin KEPEKÇİ, and Asst. Prof. Safar POURABBAS as jury members. During the session, students presented the graduation projects they had been working on throughout the semester to the jury members, providing information on the projects' objectives, methods, design, and implementation processes.

Following the presentations, the prototypes developed by the students were exhibited in the laboratory. This gave students the opportunity to put their theoretical knowledge into practice, manage engineering design processes, and present the systems they developed to the jury.

The MEK498 - Final Year Project presentations, organized by the Department of Mechatronics Engineering, concluded as an important academic evaluation process that allowed students to demonstrate the knowledge and skills they acquired throughout their undergraduate education using an interdisciplinary engineering approach.



ARCHITECTURE

Research Assistant Serpil Akan Successfully Completed Her Master's Degree

Architecture Department Research Assistant Serpil Akan successfully defended her master's thesis entitled "The Effects of Color and Lighting Variables in Residential Spaces on Stress: A Neuroarchitectural Evaluation Based on EEG and Surveys in the Elazığ Juvenile Education Center" thus completing her master's education. In her thesis, the effects of spatial design variables such as color and light on users in living spaces of children's education centers were examined within the framework of a neuroarchitectural approach. The research evaluated the effects of the spatial environment on stress levels using EEG measurements and survey applications. We congratulate Res. Asst. Serpil Akan on this significant academic achievement and wish her continued success in her academic endeavors.



BASIC SCIENCES

36 International Scientific Publications in 2026 by Our Faculty Member from the Department of Basic Sciences

Prof. Dr. T. Abdeljawad, a faculty member of the Department of Basic Sciences at the Faculty of Engineering and Architecture, Istanbul Gelisim University, has achieved a significant academic success with 36 scientific studies published in internationally indexed journals in 2026. Prof. Dr. Abdeljawad's 2026 publications mainly focus on advanced areas of mathematics such as fractional and fractal-fractional differential equations, fixed point theory, stability analysis, boundary value problems, optimal control, nonlinear wave models, numerical solution methods, and artificial intelligence-supported mathematical modeling. In addition, these studies address applied topics including epidemiological models such as HIV, COVID-19, Ebola, shingles, and tick-borne encephalitis; prey-predator dynamics; global warming; CO₂ emissions; nanofluids; heat transfer; porous media; and engineering systems. Published in prestigious international journals indexed in SCI-Expanded, ESCI, and Scopus, these studies strengthen the interdisciplinary connection between mathematical theory and engineering, health, environmental sciences, and computational sciences. Prof. Dr. Abdeljawad's research, which combines theoretical analysis with numerical methods and artificial intelligence approaches, makes significant contributions to our university's research-oriented and innovative academic vision. As Istanbul Gelisim University, we congratulate Prof. Dr. T. Abdeljawad for his dedicated scientific productivity and international academic contributions throughout 2026 and wish him continued success in his future studies.



SHAPE THE FUTURE

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