FACULTY OF ENGINEERING AND ARCHITECTURE

BULLETIN

● SEPTEMBER 2024 ●

WHAT YOU WILL READ IN THIS ISSUE:

News from Faculty

Actuel Topics in Engineering and Architecture

Academic and Scientific Activities

FACULTY OF ENGINEERING AND ARCHITECTURE

NEWS FROM THE FACULTY

MONTHLY BULLETIN

SEPTEMBER 2024

NEWS FROM THE FACULTY

TARIK ÇAKAR, WHO WORKED AS PROFESSOR AND DEPARTMENT HEAD IN THE DEPARTMENT OF INDUSTRIAL ENGINEERING, HAS BEEN APPOINTED AS DEAN OF THE FACULTY OF ENGINEERING AND ARCHITECTURE AS OF SEPTEMBER 18, 2024. WE CONGRATULATE OUR PROFESSOR AND WISH HIM SUCCESS IN HİS NEW POSITION.

SEDA ERBAYRAK, WHO WORKED AS AN ASSISTANT PROFESSOR IN THE DEPARTMENT OF INDUSTRIAL ENGINEERING, HAS BEEN APPOINTED AS THE VICE DEAN OF THE FACULTY OF ENGINEERING AND ARCHITECTURE AS OF SEPTEMBER 20, 2024. WE CONGRATULATE AND WISH HER SUCCESS IN HER NEW POSITION.

NURDAN TÜYSÜZ, WHO WORKED AS AN ASSISTANT PROFESSOR IN THE DEPARTMENT OF INDUSTRIAL ENGINEERING, HAS BEEN APPOINTED AS THE VICE DEAN OF THE FACULTY OF ENGINEERING AND ARCHITECTURE AS OF SEPTEMBER 20, 2024.
WE CONGRATULATE AND WISH HER SUCCESS IN HER NEW POSITION.

NEWS FROM THE FACULTY

● COMPUTER ENGINEERING ●

TEKNOFEST 2024 WILL BE HELD IN ADANA FROM OCTOBER 2 TO 6

In preparation for the Aviation, Space, and Technology Festival (TEKNOFEST) in Adana, covering 300,000 square meters of open space and 50,000 square meters of enclosed area, competitors will vie for a total of 31 million TL in prizes and over 55 million TL in material support. One of these competitions, the Quantum Hackathon, features our department's research assistant Erdi Acar and his team. Having achieved commendable success with his team, our research assistant will be in Adana for the award ceremony.

NEWS FROM THE FACULTY

● INDUSTRIAL ENGINEERING ●

Asst.Prof.Binnur Gürül has been appointed to his new position.

Binnur Gürül, who has been working as an Assistant Professor in the Department of Industrial Engineering, has been appointed as the Department Head of the Department of Industrial Engineering as of September 20, 2024.
We congratulate and wish her success in her new position.

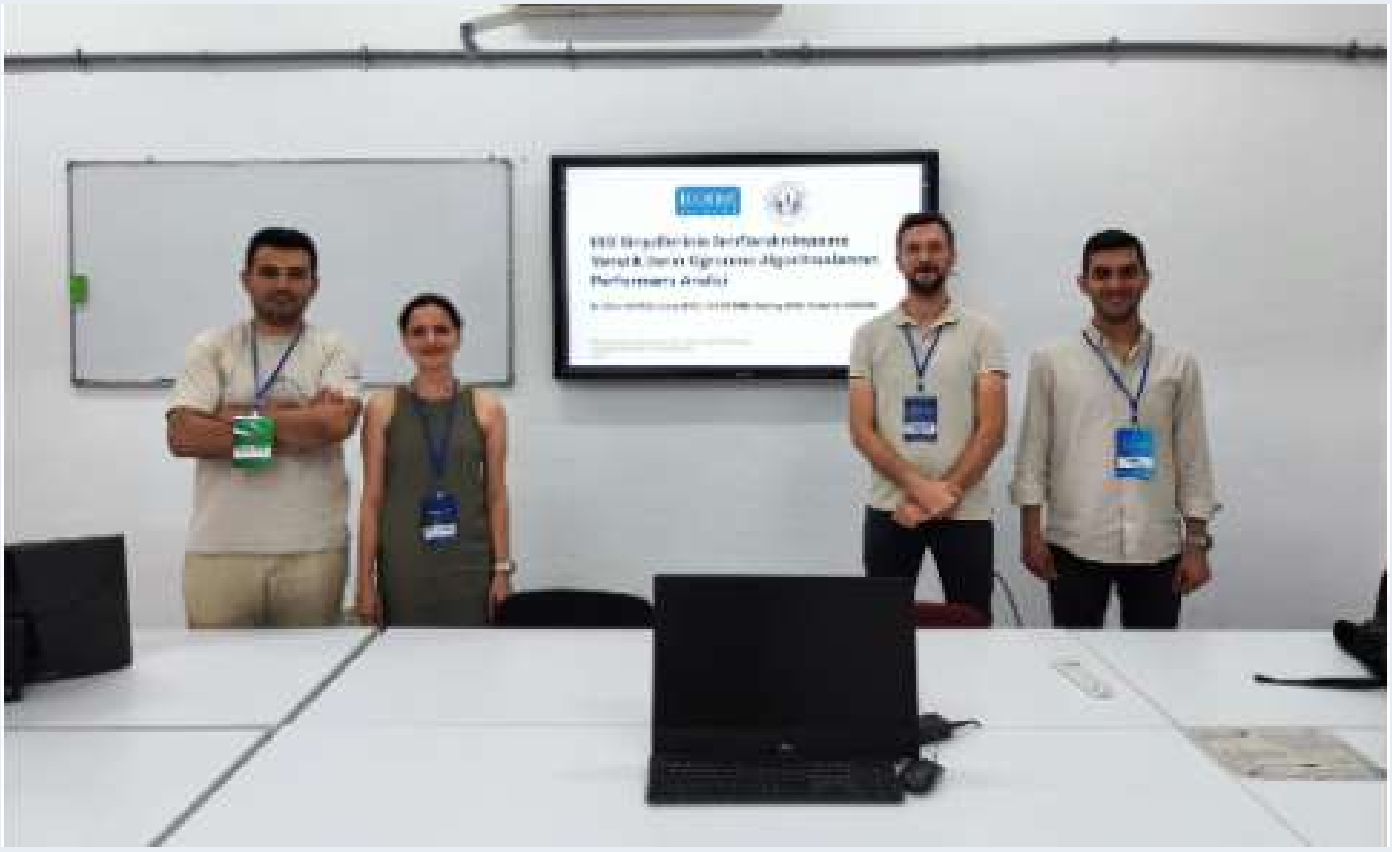
ASST. PROF. MERT YILDIRIM ATTENDED THE "TECHNOLOGY AND INNOVATION SUMMIT 2024" AS AN INVITED GUEST

Asst. Prof. Mert Yildirim from Istanbul Gelisim University's Faculty of Engineering and Architecture, Department of Industrial Engineering, attended the "Technology and Innovation Summit 2024" as an invited guest of Harvard Business Review Türkiye. The summit, which featured a number of distinguished speakers, was hosted by Harvard Business Review Türkiye on September 18, 2024, at Swissotel the Bosphorus, Istanbul.

At the summit, where prominent business leaders such as Erol Bilecik, President of Index Group and President of the Board of Directors of TUSIAD for 2017-18; Dr. Ali Taha Koc, CEO of Turkcell; and Elif Capli, CEO of Beymen Group, were also speakers, many topics were discussed, including digital transformation strategies, the impact of digitalization on business processes, the power of artificial intelligence in the business world, and future business models.

NEWS FROM THE FACULTY

● ELECTRICAL ELECTRONICS ENGINEERING ●



This year, at the 7th INTERNATIONAL CONFERENCES ON SCIENCE AND TECHNOLOGY conference held in Durres / Albania, two papers titled “Performance Analysis of Deep Learning Algorithms for Classification of EEG Signals” and “Low Power Consumption Data Security Implementation for Artificial Intelligence Based Smart Systems” were successfully presented by our Electrical Program instructors at Gelişim Vocational School, Lecturer Muhammet Cihat MUMCU, and Electrical and Electronics Engineering Department Research Assistants Elif ÖZTÜRK, Abdullah GÜNGÖR and Kubilay ATAŞ.

● CIVIL ENGINEERING ●

2024-2025 ACADEMIC YEAR ORIENTATION PROGRAM

On 23 September 2024, Istanbul Gelisim University Faculty of Engineering and Architecture launched its traditional university orientation program with the start of the new academic year. This program, which is organized for new students of the faculty, aims to both facilitate adaptation to university life and to ensure that students make a strong start to the education process. Within the scope of the orientation program, students will be informed about basic issues such as the general functioning of the faculty and the university, academic advising services, course registration process, laboratory and workshop facilities. In addition, students were given detailed information about social activities, student clubs, and career opportunities offered by the faculty. Delivering the opening speech of the program, the Dean of the Faculty of Engineering and Architecture, Prof. Dr. Tarık ÇAKAR, wished the students a successful education life and emphasized that university life is not only about acquiring academic knowledge; it also offers an excellent opportunity for social, cultural and professional development. On behalf of our department, Asisst. Prof. Yasin PAŞA, one of our vice department heads, delivered his speech. Students who had the opportunity to meet with faculty administrators and academic staff had a pleasant experience on their first day by exploring the campus facilities of the university. While the orientation program aims to prepare new students for university life in the best way, it will continue to guide them. Istanbul Gelisim University Faculty of Engineering and Architecture continues to train successful engineers and architects of the future with its innovative educational opportunities and programs intertwined with the sector.

NEWS FROM THE FACULTY

● MECHATRONICS ENGINEERING ●

On September 23, 2024, Istanbul Gelisim University Faculty of Engineering and Architecture Orientation Program was held. Prof. Dr. Hamdi Alper ÖZYİĞİT, Head of Mechatronics Engineering Department, made the welcoming speech on behalf of our department in the program where the professors of the faculty departments made speeches. After the Orientation Program, students met with the department professors in the foyer area and had the opportunity to ask the questions they were curious about.

NEWS FROM THE FACULTY

● ARCHITECTURE ●

Istanbul Gelisim University Faculty of Dentistry Building was created by reusing an existing building by transforming it into an educational building. The urban university campus is constantly interacting with its surroundings and in this context, within the framework of the campus master plan, the need to renew the facade of the aforementioned building arose. For this purpose, it has been requested by the management of the University and the curtain wall conceptual project has been designed by Assist. Prof. Semih G. Yıldırım (PhD) from the Faculty of Engineering and Architecture, Department of Architecture. The site supervision was carried out by the Department of Construction Works and the curtain wall fabrications were completed.

FACULTY OF ENGINEERING AND ARCHITECTURE

ACTUEL TOPICS IN ENGINEERING AND ARCHITECTURE

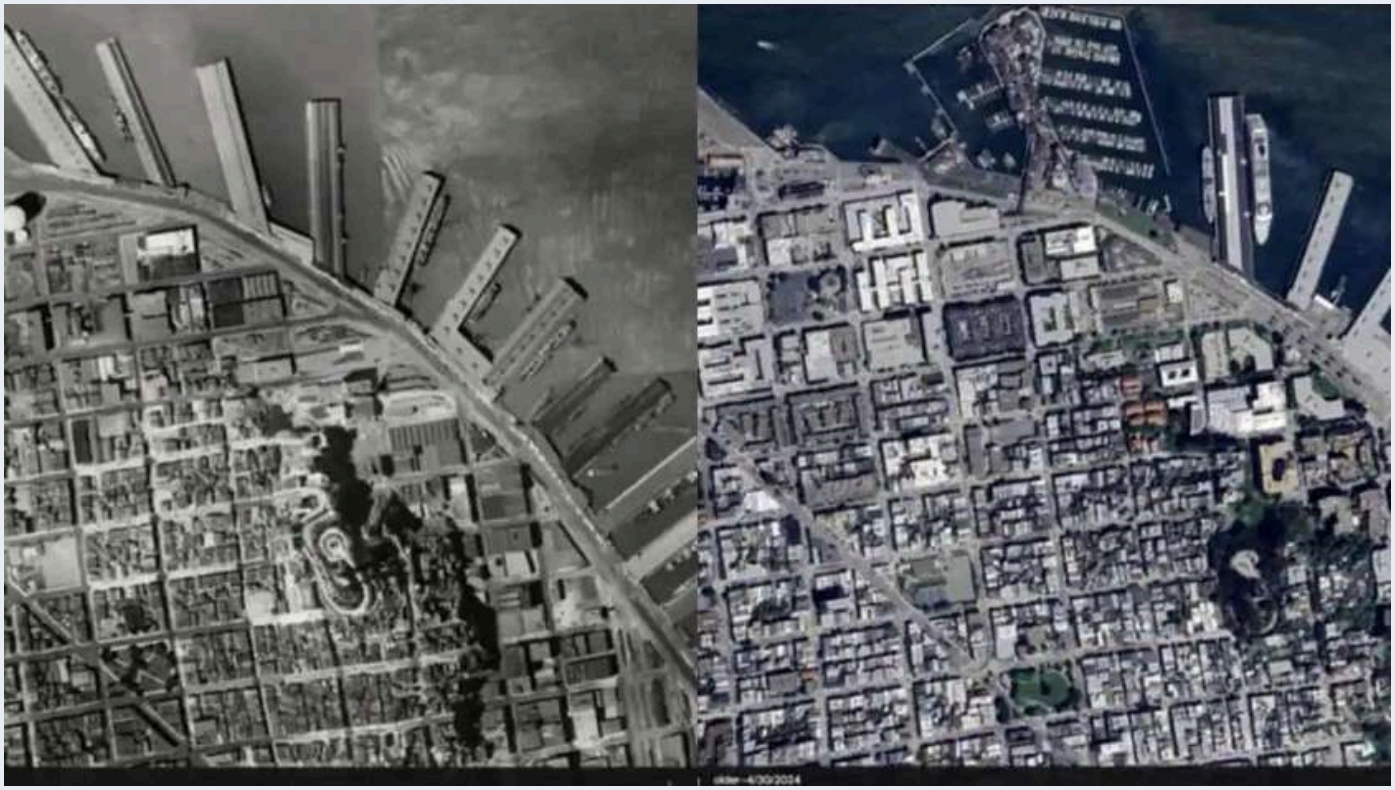
MONTHLY BULLETIN

SEPTEMBER 2024

ACTUEL TOPICS IN ENGINEERING AND ARCHITECTURE

● COMPUTER ENGINEERING ●

GOOGLE EARTH'S NEW UPDATE TAKES USERS BACK IN TIME – RES. ASST. MUHAMMED MUSTAFA YURDAKUL



Google is preparing to revolutionize how users explore history with an upcoming update to Google Earth. This new feature will allow users to view satellite and aerial imagery dating back 80 years, effectively doubling the current time range of available images. Historical images from cities like London, Berlin, Warsaw, and Paris, going back to the 1930s, will be included.

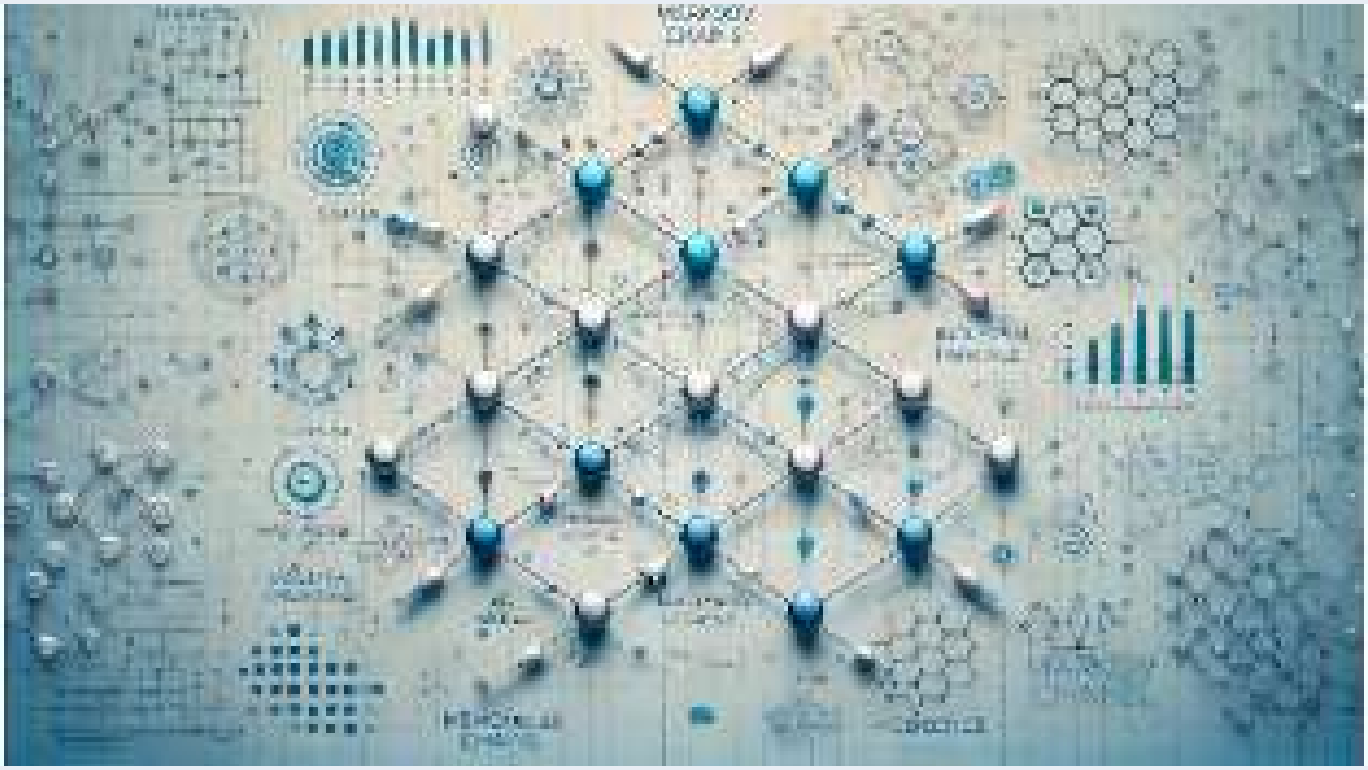
ACTUEL TOPICS IN ENGINEERING AND ARCHITECTURE

● BİLGİSAYAR MÜHENDİSLİĞİ ●

The forthcoming update will not only expand the historical scope of Google Earth images but also enable users to compare how cities have evolved over time. Additionally, Google is redesigning the Google Earth home interface to facilitate easier use and collaboration for researchers and organizations working on various projects. The new feature will be available on both mobile and web platforms, making it widely accessible to users.

These updates are expected to roll out in the coming weeks and are part of Google's broader initiative to enhance user experience by providing more comprehensive and high-quality content across its platforms.
Along with historical imagery, Google is also expanding the Street View feature in Google Maps to around 80 countries. This will allow users to explore more content captured by Google’s Street View cars and trekkers.

MARKOV CHAINS: THE MATHEMATICAL WAY TO PREDICT THE FUTURE – RES. ASST. DUYGU TÜYLÜ



Markov chains are an important mathematical model used to predict the future states of systems. It was first developed by Russian mathematician Andrey Markov in 1906 and has been applied in many fields since then. This model is considered a powerful tool, especially in probability theory and statistics.

ACTUEL TOPICS IN ENGINEERING AND ARCHITECTURE

● INDUSTRIAL ENGINEERING ●

Markov chains are used in many fields such as finance, machine learning, industrial engineering and genetics. For example, while it is frequently used in the field of finance to predict stock prices and portfolio management, it is preferred in applications such as natural language processing and text prediction in the field of machine learning. It is used in industrial engineering to model work processes in production lines and increase efficiency, and in genetics to analyze DNA sequences.

Markov chains provide a powerful way to predict the future without relying on past information. This model, which is used in many fields from financial forecasts to genetic analysis, from machine learning to production processes, makes it easier to understand complex systems. This simple but effective model of probability theory helps us predict the future more reliably.

Markov chains are becoming increasingly important in both the academic and practical worlds. By exploring this powerful tool, you can learn more from your data and plan your future steps more accurately.

WE RECEIVED THE OPINIONS OF RES. ASSIST. BILGE SULTAN DEMİRTAŞ ABOUT THE ERASMUS+ STAFF MOBILITY PROGRAM SHE PARTICIPATED IN.

Can you introduce yourself and tell us about your educational background?

I am Bilge Sultan Demirtaş. After graduating from Gebze Anatolian High School, I started my undergraduate education in the Civil Engineering department at Yıldız Technical University. Upon successfully completing my undergraduate studies, I decided to pursue graduate education, and in 2017, I enrolled in the Earthquake Engineering program at Kandilli Observatory and Earthquake Research Institute, Boğaziçi University. I am currently continuing my doctoral studies in the same field. My research focuses on Geotechnical Earthquake Engineering. Together with my advisor, we are working on topics such as liquefaction and soil improvement methods.

ACTUEL TOPICS IN ENGINEERING AND ARCHITECTURE

● CIVIL ENGINEERING ●

How did your participation in the Erasmus+ Staff Mobility program come about? How did you take advantage of this opportunity?

Istanbul Gelişim University offers support for international mobility programs for its staff. As an academic staff member, I wanted to benefit from the opportunities provided by this program. After gathering the necessary information about the program and the application process, I followed the required steps and completed my application during the open call. Once my application was accepted, I had the chance to visit Politécnico da Guarda in Portugal through this program, as the university has an agreement with Istanbul Gelişim University. Communicating with the designated university, we detailed the plans for my visit. Through this opportunity, I was able to observe different educational models and practices, as well as experience other cultures.

Can you share your general impressions of your visit to Politécnico da Guarda in Portugal?

My visit to Politécnico da Guarda was both an informative and impressive experience. I had positive impressions regarding the academic environment, research opportunities, and student-faculty relationships at the university. The modern and well-equipped laboratories and research centers provided an excellent opportunity to follow innovations, especially in civil engineering projects. The faculty's openness to international collaborations and interdisciplinary studies reinforced the dynamic and forward-thinking structure of the university. Additionally, thanks to the hospitality of the Portuguese people and the country’s rich cultural heritage, I had a culturally enriching experience. I had the opportunity to explore the historical and cultural sites of the city, which gave me a broader perspective on Portugal's education system and culture.

ACTUEL TOPICS IN ENGINEERING AND ARCHITECTURE

● CIVIL ENGINEERING ●

What benefits can such international programs provide to our university and students?

I believe that such programs offer numerous essential benefits to our university and students. International programs enhance academic and cultural diversity, enabling students and faculty to interact with people from different countries. This interaction helps them gain global perspectives and develop new viewpoints. Moreover, these programs strengthen academic collaborations and lay the groundwork for joint research projects. Collaborations with different universities encourage the exploration of new research areas and promote knowledge sharing, which elevates the academic quality and research capacity of our university. For students, international experiences contribute significantly to their personal and professional development. They improve their foreign language skills, enhance their ability to understand and adapt to different cultures and gain a competitive advantage in their careers, making them more equipped for the global job market.

How did this visit contribute to your personal and professional development?

This visit provided an opportunity to experience different cultures and improve my ability to live in a new country, contributing to my personal growth. It also enhanced my ability to express myself more comfortably and adapt to an international environment. Professionally, I had the chance to interact with academics and students at Politécnico da Guarda. These interactions carried the potential to create new collaborations for joint research projects and academic exchange programs.

ACTUEL TOPICS IN ENGINEERING AND ARCHITECTURE

● CIVIL ENGINEERING ●

What are your views on the Civil Engineering Department at Istanbul Gelisim University?

The Civil Engineering Department at Istanbul Gelişim University offers a program with a strong academic staff and a solid educational and research infrastructure. The course content is designed to align with the industry's needs and closely follow current developments. The department provides students various laboratory and practical opportunities to develop theoretical knowledge and practical skills. The faculty members are experienced in their fields and are highly motivated to mentor students. Various activities and projects are organized to support students' academic success and help them achieve their career goals. Additionally, the department actively supports students in internships and post-graduation employment

MICRO ROBOTIC SYSTEMS: TECHNOLOGY OF THE FUTURE – RES. ASST. UFUK ATEŞOĞLU

Micro robotic systems are robotic devices that operate on a micrometer scale and can fulfill their tasks at these small dimensions. Nowadays, micro robots, which are of great interest especially in high-tech fields such as medicine, biotechnology, electronics and defense industry, are developing rapidly with the advancement of technology. Micro robotic systems are one of the best examples of the interdisciplinary nature of mechatronics engineering. These systems are created by combining fields such as mechanics, electronics, software and control theory.

Structure and Functionality of Micro Robots

Since micro-robotic systems are usually very small in size, the components included in their structure must also function at this scale. The following basic components are required for a micro robot to function:

Mechanical Structure: Micro robots are usually made of lightweight, flexible and durable materials. These materials enable the robots to mobilize and perform the desired functions. One of the most important advantages of micro robots is that they can work in limited spaces due to their miniature size.

ACTUEL TOPICS IN ENGINEERING AND ARCHITECTURE

● MECHATRONICS ENGINEERING ●

Electronic Components: Micro robots usually use integrated circuits, micro sensors and micro motors. These components enable the robot to sense and interact with its environment. For example, micro robots can detect chemical substances or biological cells due to very sensitive sensors.

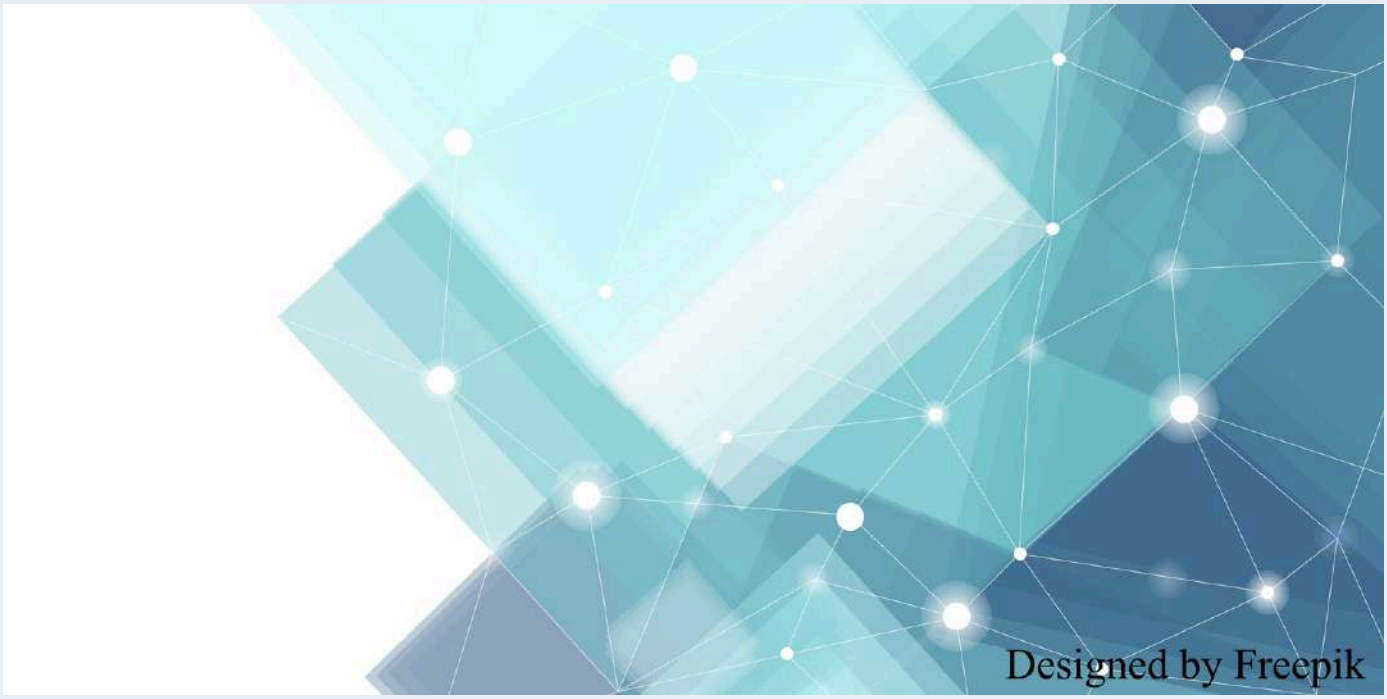
Software and Control Systems: Software and algorithms that control the mobility and functions of micro robots allow the robot to be programmed and perform specific tasks. Artificial intelligence and machine learning in particular play an important role in enabling micro robots to perform more complex tasks.

Application Areas of Micro Robotic Systems

Medicine and Biotechnology
One of the most exciting uses of micro robots is in the world of medicine. By traveling through the human body, micro robots can be used to diagnose and treat diseases. For example, micro robots injected into blood vessels can detect tumors, deliver drugs to specific points or perform minimally invasive surgical procedures. In addition, studies are ongoing on microrobots that can work at the cellular level and play a role in genetic regulation.

ACTUEL TOPICS IN ENGINEERING AND ARCHITECTURE

● MECHATRONICS ENGINEERING ●



Defense and Security

Micro robots have the potential to be used in military operations. Thanks to their small size, they can conduct reconnaissance without being noticed by the enemy. Micro robots, which are also planned to be used in the detection or neutralization of explosives, will have an important place in the military technologies of the future.

Industrial Applications

Micro robots have a great advantage, especially in precision assembly and microelectronics manufacturing processes. In the production of electronic devices that require precision machining and assembly at very small scales, micro robots can improve production quality by minimizing human error.

ACTUEL TOPICS IN ENGINEERING AND ARCHITECTURE

● MECHATRONICS ENGINEERING ●

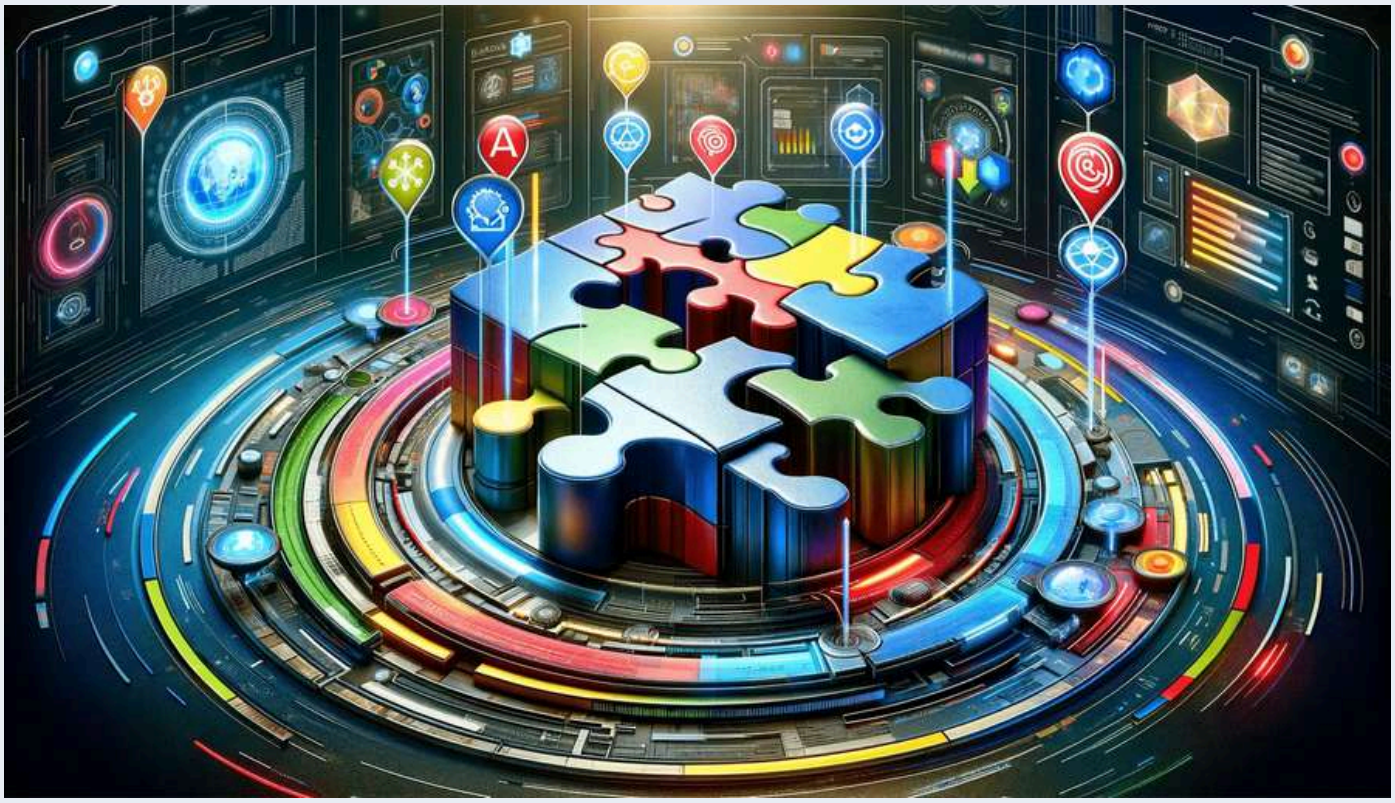
Environmental Science and Space Exploration
Micro robots are also being designed for use in environmental measurements and space exploration. For example, micro robots can be used to collect samples or analyze data in difficult and inaccessible areas. In space exploration, microrobots can be used to explore the surface of other planets or make atmospheric measurements.

The Future of Micro Robotics
The future of micro-robotic systems looks very promising. With the advancement of technology, the functionality and usage areas of micro robots continue to increase. Especially with the developments in the field of medicine, it is thought that micro robots will revolutionize many fields from cancer treatment to tissue repair.

As micro robots become more common in the following years, it is predicted that they will lead to significant changes in many areas of society. However, it should not be forgotten that with the common use of this technology, ethical and security issues will also come to the fore. Issues such as the control of micro robots, the protection of personal privacy and their use in military applications will be discussed more in the future.

THE ROLE AND IMPORTANCE OF OPTIMIZATION IN SOFTWARE ENGINEERING

– RES. ASST. SEVCAN BULUT



Optimization and optimization algorithms play a crucial role in enhancing efficiency and performance in software engineering. These algorithms enable applications to run faster and ensure that system resources are used in the most efficient way possible. In areas such as big data processing, machine learning, energy management, and real-time systems, optimization provides significant time and cost savings.

ACTUEL TOPICS IN ENGINEERING AND ARCHITECTURE

● SOFTWARE ENGINEERING ●

In software projects, optimization algorithms facilitate more effective management of project scheduling, cost estimation, and resource allocation. Particularly in machine learning and artificial intelligence, optimization techniques are vital for improving model accuracy and overall performance.

Various optimization techniques, such as genetic algorithms, gradient-based optimization, dynamic programming, and clustering algorithms, are employed to solve complex problems. As a result, software engineers can develop more efficient, effective, and cost-efficient software solutions. Optimization is one of the key factors in achieving success in software engineering.

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FACULTY OF ENGINEERING AND ARCHITECTURE

ACADEMIC AND SCIENTIFIC ACTIVITIES

MONTHLY BULLETIN

SEPTEMBER 2024

ACADEMIC AND SCIENTIFIC ACTIVITIES

● INDUSTRIAL ENGINEERING ●

The new publication of Professor Kenan Özden, one of the faculty members of the Industrial Engineering Department at Istanbul Gelisim University, has been released.

Prof. Kenan Özden, a faculty member of the Industrial Engineering Department, has had his article titled "A Market Share Research Model with Markov Chains and an Implementation on Smart Phones" published in the International Journal of Engineering Technologies.

We congratulate our professor and wish him continued success.

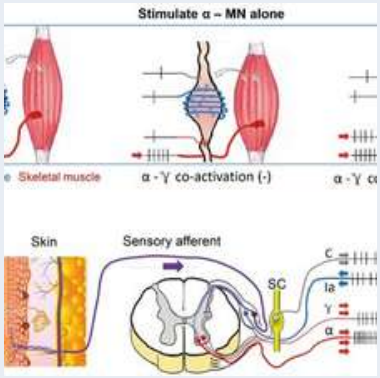
The new publication of Asst. Prof. Binnur Gürül, one of the faculty members of the Industrial Engineering Department at Istanbul Gelisim University, has been released.

The article titled “Sustainability performance of food supply chains with internal and external evaluation perspectives” by Assist. Prof. Binnur Gürül, a faculty member of the Department of Industrial Engineering, has been published in the SCI-Expanded indexed IMA Journal of Management Mathematics (IMAMAN).

We congratulate our professor and wish her continued succes

ACADEMIC AND SCIENTIFIC ACTIVITIES

● ELECTRICAL ELECTRONICS ENGINEERING ●



Our instructor Dr. Ayşe Karaoğlu's article titled "Enhancing motor performance through brief skin cooling: exploring the role of enhanced sympathetic tone and muscle spindle sensitivity" has been published.

● CIVIL ENGINEERING ●

The conference paper titled “A Case Study on Energy Based Evaluation of Deep Vibro Compaction Method” prepared by one of our Civil Engineering faculty members Asisst. Prof. İbrahim Rasin DÜZCEER, was presented in the XVIIIth European Conference on Soil Mechanics and Geotechnical Engineering held in Lisbon/Portugal on August 26-30, 2024.

The article titled "Static Response of Functionally Graded Porous Circular Plates via Finite Element Method," co-authored by the Head of the Civil Engineering Department, Dr. Ahmad Reshad NOORI, and our PhD graduate, Dr. Silda Ghazi Mohammed DOORI, has been published in the Arabian Journal for Science and Engineering, which is classified as a Q1 journal. The Scientific and Technological Research Council of Türkiye (TÜBİTAK) provides Open access funding.

ACADEMIC AND SCIENTIFIC ACTIVITIES

● CIVIL ENGINEERING ●

At the 5th International Conference on Advanced Engineering Technologies, held by Bayburt University from September 25-27, 2024, our undergraduate student Mohammad AL ROUSAN, the Head of the Civil Engineering Department Dr. Ahmad Reshad NOORI, and PhD candidate Anfel Chaima HADIDANE delivered a successful presentation of their paper titled " Importance of Finite Element Modeling Approaches in Analyzing the Bending Response of Continuous Beams." This research offers significant insights into applying finite element modeling in structural analysis, providing an enhanced understanding of the bending behavior in continuous beams, which is critical for advancing engineering design methodologies.

● MECHATRONICS ENGINEERING ●

Mechatronics Engineering Faculty Member Assist. Prof. Dr. Haydar İzzettin Kepekçi's article titled “Numerical Investigation of the Effects of Air Flow Geometry and Reynolds Number in Cooling Systems of Lithium-Ion Batteries” was published in Engineering and Technology Journal (ETJ).

ACADEMIC AND SCIENTIFIC ACTIVITIES

● MECHATRONICS ENGINEERING ●

Journal of Marine Science and Engineering
an Open Access Journal by MDPI

Mechatronics Engineering Faculty Member Assist. Prof. Dr. Haydar İzzettin Kepekçi's article titled "Design and Thermodynamic Analysis of Waste Heat-Driven Liquid Metal--Water Binary Vapor Power Plant Onboard Ship" was published in the Journal of Marine Science and Engineering with SCI comprehensive Q1 impact factor.

The article titled "An Investigation on the Evaluation and Improvement of Existing Features of Foot Exercise Apparatus Designed for Use in Evertor and Invertor Muscle Dysfunction" prepared by Res. Assist. Ufuk ATEŞOĞLU one of the Research Assistants of Mechatronics Engineering Department, his Mentor Assist. Prof. Dr. Serap YEŞİLKIR BAYDAR and Assoc. Prof. Dr. Osman Nuri ÖZYALVAÇ, has been accepted for publication in Düzce University Journal of Science & Technology.

ACADEMIC AND SCIENTIFIC ACTIVITIES

● ARCHITECTURE ●

The project proposal entitled "A Research on the Outstanding Universal Value and World Heritage Potential of Mimar Sinan Period Menzil Complexes," submitted by Research Assistant Hazal TÜRKMEN YAZGAÇ from the Department of Architecture to TÜBİTAK under the '1002-A Rapid Support Module', has been approved for support. This project falls under the supervision of Prof. Dr. Demet Ulusoy Binan. We extend our sincere congratulations to Hazal TÜRKMEN YAZGAÇ and wish her continued success in this endeavor.

Research Assistant from the Department of Architecture Hazal TÜRKMEN YAZGAÇ presented her paper titled ‘Conservation Approach of Ottoman Roadside Complexes by Mimar Sinan’ at the 8th International Conference on Conservation of Architectural Heritage held by Universita degli Studi di Cagliari and University of Portsmouth between 17-19 September 2024 in Cagliari, Italy

ACADEMIC AND SCIENTIFIC ACTIVITIES

● ARCHITECTURE ●

5th International Conference on Advanced Engineering Technologies

25-27 September 2024

ICADET

Optimizing Mesh Size for Static Response Analysis of Vault Structures via Finite Element Method

Ebrar SUGÜN*[1], Ahmad Reshad NOORI[2], Semih Göksel YILDIRIM[3]

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Keywords:
Bending
Stress
Strain
Finite element method
Vault Structures

Abstract

The mesh size is important in analyzing the vault structures with the finite element method. These structures which consist of curved surfaces need to be divided into the appropriate number of finite elements to obtain reliable results because the mesh size influences the accuracy of the results more than those of isotropic structures. In this research, four different curvature types such as circular, elliptical, parabolic, and cycloidal are considered. The material properties are assumed to be isotropic and homogeneous. In this research, the finite element package program ANSYS is employed to analyse the considered structures subjected to several static loadings. The effects of transverse shear deformation are included by using the SHELL209 element. This element is designed for the analysis of thin to moderately thick shell structures. This element features eight nodes, each with six degrees of freedom: translations along the x, y, and z axes, as well as rotations around these axes. Results are obtained in terms of displacements, principal stresses, Von-mises stresses, and strains. Clamped, pinned and roller supports are used to define different boundary conditions.

The paper titled “Optimizing Mesh Size for Static Response Analysis of Vault Structures via Finite Element Method”, produced from the work of Ebrar Sugün, a student of the Department of Architecture, who received “TÜBİTAK 2209A University Students Research Project” support, has been accepted at the 5th International Conference on Advanced Engineering Technologies (ICADET). The authors of the paper are Ebrar Sugün, Ahmad Reshad Noori and Semih Göksel Yıldırım with the participation of professors from Architecture and Civil Engineering Departments. The paper was presented by the first author Ebrar Sugün on September 26, 2024.

ACADEMIC AND SCIENTIFIC ACTIVITIES

● AERONAUTICAL ENGINEERING ●

CERTIFICATE
OF PARTICIPATION

Turkish Physical Society 40th International Physics Congress

Melis T. Özşahin

We would like to thank you for your valuable contributions as a Participant with an Oral Presentation at the Turkish Physical Society 40th International Physics Congress held in Bodrum, TURKIYE, 2 - 6 September, 2024.

Assoc. Prof. Dr. Değer SOFUOĞLU
President of Organizing Committiee

Prof. Dr. Baki AKKUŞ
President of Turkish Physical Society

Research Assistant Melis Özşahin Toker, from the Department of Aeronautical Engineering within the Faculty of Engineering and Architecture, gave two oral presentations at the "40th International Physics Congress of the Turkish Physical Society" held in Bodrum, Turkey, between September 2-6, 2024.

Her first presentation, titled "Determining the Effective Atomic Numbers of Explosives in Landmines: A Monte Carlo Study," is an innovative research focusing on the fundamental parameters crucial for detecting landmines.

Her second presentation, titled "AI-Driven Detection of Multiple Sclerosis: A CNN Approach with MR Imaging," reveals significant findings on the detection of multiple sclerosis using artificial neural networks.

We congratulate Melis Özşahin Toker for her successful contributions and wish her continued success in her future endeavor

• TAG •

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