

# BULLETIN

FACULTY OF ENGINEERING AND ARCHITECTURE

#### O C T O B E R 2 0 2 3



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# **News From The Faculty**

## October 2023

## Industrial Engineering

Industrial Engineering Department Board held a meeting on 11 October 2023. The meeting was chaired by head of Department Prof. Dr. Tarık Çakar. r, review and update the Department Commissions, and review and update the Consultancies.

111 October 2023 "Department Orientation" has been held for the firstyear, horizontal and vertical transfer students who have newly registered to our university to introduce our department, faculty, university, the services, and opportunities they will benefit from, and to make them feel that they are part of the IGU family.

In this context, all our faculty members introduced themselves and Prof. Dr. Kenan Özden made a Department Orientation presentation. Within the scope of the presentation, it is aimed to enable the students to adapt to the School and the Department more quickly by giving information about the meaning and duties of Industrial Engineering, the Department's curriculum, laboratory and physical facilities, our educational goals and principles, directives and regulations.

Working in Industrial Engineering Department Prof. Dr. Kenan Özden served as a jury member in the oral examination, which is a mandatory requirement for the appointment of Associate Professor Dr. Hüseyin Gürbüz who successfully obtained the title at the Faculty of Economics and Administrative Sciences at Anadolu University on 18 October 2023.

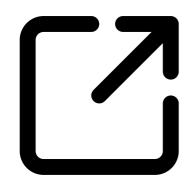


## **Civil Engineering**

On October 2, 2023, an orientation meeting was organized by our head of department Assist. Prof. Dr. Ahmad Reshad NOORI to give general information about the department and the university to our newly enrolled students.



We started with one of our graduates, Abdülbaki HACIOĞLU, as a Laboratory Technician according to our department



## **Mechatronics Engineering**

On 10.10.2023, the Mechatronics Engineering Department External Stakeholder meeting was held online in order to improve the quality of education and training in our Department.

## Architecture

Within the scope of ARC 209 Architectural Design I course, a field trip to Samatya was held on October 9, under the leadership of Assoc. Dr. İlke CİRİTCİ, Asst. Prof. Oluwagbemiga Paul AGBOOLA, Lecturer Hilay ATALAY ve Lecturer Elif AKSAYAN.





Within the scope of ARC 347 New Building Design In Historical Environment, Yeşilköy field trip was held on October 9, under the leadership of Assoc. Dr. İlke CİRİTCİ.

The work titled "Aleppo City and Its Traditional Houses", written by Dr. Mahmoud Zin Alabadin and published in Turkish, Arabic, and English, was deemed worthy of the Arab Archaeologists Council Award. The award will be presented at the Conference of the Council of the Association of General Arab Archaeologists, which will be held in Cairo on 11 November 2023. Congratulations to Dr. Mahmoud Zin Alabadin.



## Architecture

 Res. Asst. Hilal DEVER at University of Tetovo
 Within the scope of KA-131
 Erasmus+ Staff Mobility, Res.

Asst. Hilal DEVER was at the University of Tetovo in Tetovo, Macedonia, between 2-6 October 2023.





Dr. Semih Göksel YILDIRIM at Technical University of Cartagena, Within the scope of KA-131 Erasmus+ Personnel Mobility, Dr. Semih Göksel YILDIRIM was at the Technical University of Cartagena in Cartagena, Spain. He gave a seminar on "Influences Shaping the Construction Industry in Turkey" on 18 October 2023 and "Digitalization of Construction Industry" on 25 October 2023.

Korkut Res. Assist. Burcu at University of Niš .Within the scope of KA-131 Erasmus+ Staff Mobility, Research Assistant Burcu Korkut visited the University of Niš in Niš, Serbia between 16-27 October 2023. Under the University of Niš Faculty of Civil Engineering and Architecture Department of Architecture, she participated in courses with the aim of receiving education, developing and advancing academic cooperation between institutions.



#### Workshop Participation of Res. Assist. Burcu Korkut

Res. Assist. Burcu Korkut participated in the workshop "Looking at the Republic from the Wall, the Wall from the Archive" held at Salt Galata on 29-30 September 2023 within the scope of the International Symposium "The Republic, Architecture and the City: 100 Years of Heritage" organised by Istanbul Kültür University Faculty of Architecture. In the workshop, themes related to the history of the Republic were determined and a creative reading was made on architecture, design, city and art through these themes. The stories written by the workshop participants based on these readings were exhibited during the Symposium







#### Res. Assist. Burcu Korkut as MARUF23 Rapporteur

The third Marmara International Urban Forum (Marmara Urban Forum - MARUF), organised by the Marmara Municipalities Union every two years with the motto "Cities Developing Solutions", was held on 4-6 October 2023 at the Istanbul Congress Center with more than 140 different sessions and over 300 speakers.

This year MARUF23 was organised with the main theme of "Resilience and Beyond". Thinkers, producers and practitioners on cities and urbanisation searched for ways to make our cities and urban life resilient, livable, in harmony with nature, sustainable and inclusive in the face of vulnerabilities in this age of multiple crises and shared their solution proposals.

For this purpose, during MARUF, which was held at the Istanbul Congress Center on 4-5-6 October 2023, Research Assistant Burcu Korkut actively participated in the forum and provided her support as a rapporteur throughout the forum.



#### ISTANBUL GELİŞİM ÜNİVERSİTESİ

2023

## AS THE ARCHITECTURE AND DESIGN CLUB, WE WOULD LIKE TO PRESENT TO YOU OUR INTERVIEW WITH OUR ESTEEMED TEACHER MR. ERDAL YILDIZ IN HONOR OF HIS 50. YEAR IN THE PROFESSION.

Architect Erdal Yildiz, who has an important place in the deep-rooted history of Gelişim University, appears as an important figure in design, construction and aesthetics with 50 years of experience. This podcast interview is an opportunity to delve deeper into Yildiz's career and understand the evolution of the architecture industry. Understanding the complexity of design and the difficulties of construction projects through the eyes of Yildiz will offer listeners a unique perspective. At the same time, this interview will be an important resource that will provide horizon-opening insights into the changing trends in the industry and future possibilities. Now come and witness this pleasant conversation we had with him.

#### Do you have a moment in your architectural life that you can consider as a turning point?

It may not be the only events that will always be turning points from their professional lives. I don't remember a single event in my life that could constitute a turning point professionally either. But there may be periods that will be turning points. The most important turning point in my life is that I did not have the opportunity to work at an institution such as the "GENERAL DIRECTORATE OF BUILDING WORKS of THE MINISTRY OF PUBLIC WORKS" after graduation. It is a period in my life that has greatly regularized my view of the profession... Unfortunately, such an organization no longer exists today

#### If you had the opportunity to be confronted with the way you were when you first started your profession, how would you make suggestions to him?

I am also telling myself today, I am also telling other colleagues, dear friends, if we had twice the knowledge we have as a human being, we would not have encountered any of the problems we are experiencing today. We may have other problems, but they may be more level and more social problems, more social problems at a high level. For this reason, I always recommend to the young person to have more knowledge professionally.



## 50 In the profession. if you were to sit in the student row again at the end of your year, what would you say?

I would say listen to what is being told. Because learning is learning by listening to what happens with the least energy consumption. When you want to learn by reading, you definitely need to exercise your brain more. When you want to learn by doing, you also need to work physically. When you learn by suffering, you already expend a lot of energy, but learning by listening is a good learning that you will get only by directing your attention to what is being said while you are resting.

## What was the event or phenomenon that tired you the most during your student period and in your 50-year professional life?

Well, I don't think I get tired much during the student period. I always lived in a dormitory when I was a student, I wasn't at home, once I had to draw a project in my house, my whole family was on top of me from two to three at night to see when it would go to bed and sleep. My son refused to study architecture, he told me because he had never seen me sleep. But I have felt great discomfort from many people that they have compressed the things I can do into very limited times. In other words, design is an endless task, but it is not a job that will be maintained forever. It is necessary to be matured and presented and implemented at certain time intervals December. But I have never seen enough time given to design in my professional life. For that reason, I think I am very tired, especially in my professional life, in order to produce good things in a short time.

#### İSTANBUL GELİŞİM ÜNİVERSİTESİ

2023

As a result of your many years of experience, do you have a rule that you definitely say I should or would do in my professional life? If so, what is it?

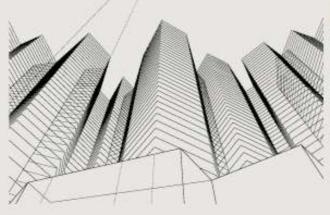
I don't have a rule, but I'm thinking about It today because it has come across me on several occasions, and I'm thinking about it with regret, and that's it: many of the works I've done so far have not been stored by me as an archive and documentation. I'm seriously upset about this. Looking back, I remember that from time to time I played a leading role in many projects, participated in many important projects, helped many projects pass important stages. But I regret to see that I do not have any documents related to these. Sometimes a page or two from Decadences we have drawn by hand comes out from among very irrelevant documents and they make me think a lot and make me emotional. But I am very sad that I have not made such an archive. Currently, I recommend everyone, all my student friends, to identify and protect all the projects they have done since they were students, all the design works in certain amounts, keep an archive and a documentation file to themselves. Because when you look back, they are the studies that best describe where you came from. I think I'm missing out on this.

#### 2what are the building blocks that make you Erdal YILDIZ in the year 2023?

I don't know, there have been sad, troubled days of my work when I look back, but there have also been periods when I took a break from my work from time to time, I rested myself, but I have never given up my work, I think the reason for it is to love the profession, to love the person. Dec. What we do because it is something aimed at a lot of people, no matter how aggressive we are or how much we resent the facts about the world, it has always been guiding for me to love a person because the person we are dealing with and the person we are serving is a target person. If it weren't for that, I might not have been a very well-off person anyway. Loving people and loving the profession is what has brought me to today, wherever I have been able to get to.

#### When we examine your life, we see that you have a very successful and determined personality. So, what can you say about your working principles behind these achievements?

It may have been because I never put myself too much at the center of the work being done. Maybe because I thought the work we were doing should reach a good point. I do not remember that in any study I have done so far, I have pursued a different strategy than taking the work forward.





I have never been in the mindset of slowing down the work, taking it backwards, or agreeing that it is not at an adequate level, it may be because I always think it should be taken forward. I can't think of any other reason right now.





Within the scope of the 100th Anniversary of our Republic events, our lecturer Burak Kaan Yılmazsoy's presentation was held on October 25, 2023, at the Incirli campus of Istanbul Kültür University, under the title of "urbanism from its establishment to today".



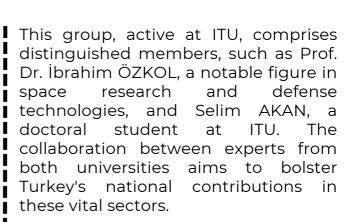


This week's speaker of the weekly Monday meetings of Moon TV Youtube channel, our Lecturer Burak Kaan Yılmazsoy, gave an interview under the title of "Urban Architecture".

## Aeronautical Engineering

#### Istanbul Gelişim University Joins Forces with ITU: Defense Technologies and Space Research Group

Prof. Dr. Asst. Murat Metehan TÜRKOĞLU, the Head of the Aircraft Engineering Department at Istanbul Gelisim University, has decided to collaborate with the defense technologies existina Istanbul Technical group at University (ITU) to enhance Turkey's growing capabilities in the field of defense technologies and space research.



Dr. Murat Metehan TÜRKOĞLU stated, "Defense technologies and space research play a critical role in our country's future. Istanbul Gelisim University is committed to sharing our knowledge and expertise in this field. striving to contribute our best to space research projects conducted within the ITU Defense Technologies group. We aim to foster a culture of inter-university collaboration and make meaningful contributions to science. Coming together with esteemed colleagues like Prof. Dr. İbrahim ÖZKOL and Selim AKAN will greatly support our goal."

This collaboration between the Head of the Department, Asst. Prof. Dr. Murat Metehan TÜRKOĞLU, and Istanbul Technical University aims to enhance Turkey's capabilities in space and defense technologies. In the coming years, it will be an exciting journey to see how the projects conducted under this collaboration will contribute to the country's progress in these fields. Prof. Dr. Ahmet Cihat Baytaş and Rector Prof. Dr. Bahri Şahin Included in the List of the World's Most Influential Scientists





Prof. Dr. Ahmet Cihat BAYTAŞ

Prof. Dr. Bahri ŞAHİN

Istanbul Gelişim University has achieved another remarkable success. **Prof. Dr. Ahmet Cihat Baytaş**, a faculty member of the Department of Aircraft Engineering at our university, and also our university's **Rector**, **Prof. Dr. Bahri Şahin, have been selected for the list of the world's most influential scientists.** 

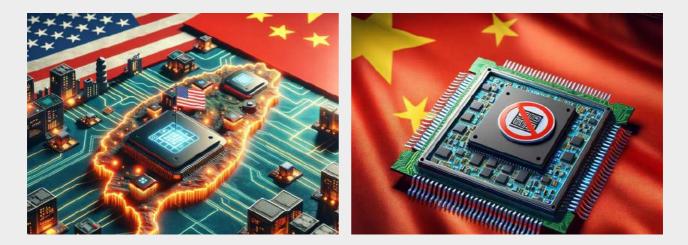
This prestigious list was compiled by John P. A. Loannidis from Stanford University and consists of scientists who rank in the top 2% based on citations for the year 2022 from the Elsevier database. The inclusion of Prof. Dr. Ahmet Cihat Baytaş and Prof. Dr. Bahri Şahin in this distinguished group is a great honor, reflecting both their personal achievements and the scientific quality of our university.

Prof. Dr. Ahmet Cihat Baytaş and Prof. Dr. Bahri Şahin appearing together on the lifetime impact list is evidence of our university's academic excellence. This accomplishment underscores the high standards of research and the international impact of our faculty members.

We congratulate and extend our best wishes to Prof. Dr. Ahmet Cihat Baytaş and Prof. Dr. Bahri Şahin on this outstanding achievement. Istanbul Gelişim University's commitment to academic excellence continues to shine brightly with the contributions of these distinguished faculty members.

## ACTUEL TOPICS IN ENGINEERING AND ARCHITECTURE

## Beyond Silicon Valley: The Tech Wars Between the US and China Prepared by: Res. Assist. Mehmet Ali BARIŞKAN



Known as the heart of technology, Silicon Valley now finds itself amidst a much larger arena, at the center of tech and semiconductor wars between the US and China. These two superpowers are in a fierce competition for leadership on the global technology stage. So, what's the latest in these silicon wars?

The US has taken a clear stance against China, blocking its access to US-origin technologies. These blockades particularly target semiconductor technologies. With this move, the US has restricted Chinese firms' access to software tools for chip design and chip manufacturing. And these restrictions aren't just for military customers; they render advanced chips used in complex operations like machine learning and supercomputing inaccessible for all Chinese customers].

China is not staying silent in this scenario. It's pushing back against the tightening export restrictions surrounding semiconductors and responding to the US's semiconductor blockade. The semiconductor war between these two nations is escalating, reflecting their struggle for global technology leadership23.

Another crucial front in this war is Taiwan. Standing at the front lines of the superpower struggle between the US and China, Taiwan has turned its semiconductor industry into a warfront, crafting a defensive masterstroke in this domain4.

And these silicon wars reflect a broader "tech cold war," rapidly becoming the decisive battleground in the US-China superpower rivalry. China has created a sprawling metropolis, often dubbed "China's Silicon Valley," to compete with the US in the technology realm5.

The competition between the US and China is expected to continue as both nations vie for technological leadership and semiconductor dominance. These silicon wars have become the new norm in the global struggle for technology leadership.

Sources for the information above: CNAS, MIT Technology Review, Barron's, Reuters, ABC.

## IoT The Good , The Bad and The Ugly Prepared by: Res. Assist. Mehmet Ali BARIŞKAN



The Internet of Things (IoT) is creating a technological revolution in today's world, reshaping our daily lives in groundbreaking ways. This fascinating network connects devices and systems, making our lives smarter, more connected, and of course, more comfortable. We can control the lights in our homes from our phones, keep our food fresher for longer thanks to smart refrigerators, and monitor our health more closely with wearable technology.

Initially, it was thought that IoT was a luxury only a few tech enthusiasts could access. However, today, this innovation has reached our desks, our homes, and our pockets. Thanks to smart devices, we save energy, reducing our bills, and simplify our daily routines with home automation. When you wake up in the morning, the curtains automatically open, your coffee is prepared, and the temperature of your home is set to the ideal level. Ah, the blessings of modern life!

The magic of IoT is also transforming urban living. Smart cities are making traffic management and energy use more efficient. Significant improvements are also being made in areas like emergency services and environmental monitoring. With its wide-ranging impacts, IoT is advancing our society in a more conscious and sustainable direction.

But, as with every good thing, there are challenges and downsides to IoT. Security and privacy concerns increase the risk of our data falling into the wrong hands. The challenges of adapting to this new technology and setting up the necessary infrastructure cannot be overlooked.

By examining the impacts of IoT on our daily lives, both positively and negatively, we can better understand the far-reaching effects of this technological revolution. Smart homes and buildings optimize energy use, resulting in significant energy savings. Wearable devices and smart health devices simplify health and fitness monitoring, while the productivity boost in business and industrial sectors due to IoT is also noteworthy. Through smart manufacturing and logistics solutions, business processes become more effective and cost-efficient.

### Positive Aspects:

Energy Savings and 1. Sustainability: Smart homes and buildings optimize energy use. leading to significant energy savings. Smart thermostats and lighting systems minimize energy enhancing consumption while comfort and ease of use. Moreover, such energy savings have a positive impact on the environment by reducing carbon emissions.

**2.Health and Safety:** Wearable devices and smart health gadgets simplify health and fitness tracking. The ability to detect and quickly respond to emergencies increases individual and societal safety.

**3.Comfort and Convenience:** IoT enables home and office automation, simplifying our daily routines. With smart devices, we can remotely control our homes and workplaces, saving time and energy.

4.<u>Efficiency and Productivity</u>: IoT offers significant benefits in the business and industrial sectors by increasing efficiency. Smart manufacturing and logistics solutions make business processes more effective and cost-efficient.

#### Negative Aspects:

**1.Privacy and Security:** The proliferation of IoT devices raises concerns about privacy and security. Personal and sensitive data collected through devices and networks can fall into the wrong hands and be misused.

**2.Dependence:** The conveniences offered by IoT can increase individuals' and societies' dependence on technology. This dependence can lead to negative social impacts such as social isolation and a lack of personal interaction.

**3.Cost:** The installation and maintenance of smart devices and systems can be costly. Additionally, the infrastructure and network connections required for IoT devices and systems necessitate additional costs and investments.

**<u>4.Adaptation and Training</u>**: To use loT technologies effectively, individuals and organizations need to adapt to these technologies and receive the necessary training. This requires time and resources

However, the proliferation of IoT devices raises privacy and security concerns. The risk of personal and sensitive data falling into the wrong hands can increase individuals' and societies' dependence on technology. Smart devices and systems can be costly to install and maintain, and compliance and training are required to use IoT technologies effectively.

<u>In conclusion</u>, while the Internet of Things offers many positive contributions to our daily lives, it also brings along certain negatives and challenges. However, overcoming these challenges has the potential to make our individual and societal lives smarter, more efficient, and more connected. IoT is not just a technological innovation but also a revolution that profoundly affects our society and individual lives. And this revolution is defining the new norm of modern life, making our lives smarter, more connected, and perhaps more meaningful.

## TAKING STOCK OF MİCROCHİP'S AUTO TECH CENTER NEAR DETROIT Prepared by: Research Assistant. Arş.Gör. Elif ÖZTÜRK



The automobile industry is experiencing a substantial shift, characterized by the widespread adoption of electric mobility (e-mobility) and advanced driverassistance systems (ADAS), which are fueling the need for state-of-the-art electronic solutions. In response to the need for innovation and assistance in the ever-changing environment, Microchip Technology is expanding its Detroit Automotive Technology Center. This 24,000-square-foot facility in Novi, Michigan, serves as a hub for automotive clients, offering resources and technical expertise to assist in the development and optimization of designs.

In an interview with EE Times, Matthias Kaestner, corporate VP of Microchip's automotive business, emphasized the significance of the center, noting that its location near major U.S. automakers facilitates Microchip's demonstration of expertise in products that can shape the future of ADAS platforms.



"Microchip is a trusted supplier to the automotive industry—for the communication infrastructures within a vehicle that are critical for various subsystems to coordinate the operation of the vehicle," he said. "ADAS requires processing power and associated bandwidths that can only be provided through the latest generations of PCIe and automotive Ethernet technology. The hardware—e.g., PCIe switches and Ethernet switches that Microchip offers—provides a standards-based approach to moving information around the vehicle so each subsystem can provide information faster and then react to the commands from the computing platforms more quickly."

Microchip has adapted to the ever-evolving automotive industry. The company's key shift has been moving from simply offering semiconductor products to providing comprehensive solutions. Microchip said this shift aligns well with the increasing complexity of automotive systems, particularly as software plays a pivotal role in modern vehicle architectures. Ergonomics from an Industrial Engineering Perspective: Efficiency and Human Factors in Work Processes Prepared by: Research Assistant. Duygu Tüylü



**Ergonomics** is a discipline that studies people's interactions with work, the environment, and products. The word originates from the Greek words "ergon" (work) and "nomos" (rule) and describes the laws of work. Ergonomics is a discipline that aims to improve the quality of work and life and deals with design, work organization, product development and environmental factors. Why is Ergonomics Important?

<u>Health and Safety</u>: An ergonomic design helps people do their jobs more safely. Proper ergonomic practices can reduce musculoskeletal disorders, fatigue and other health problems.

**<u>Productivity</u>**: An ergonomic environment or product can increase work efficiency. An environment where people work more comfortably can fuel greater business success.

<u>Comfort and Feeling Well</u>: Ergonomic products and working environments increase the comfort of users and create psychological well-being. Making people feel good while doing their job can increase their motivation.

#### **Ergonomics Applications**

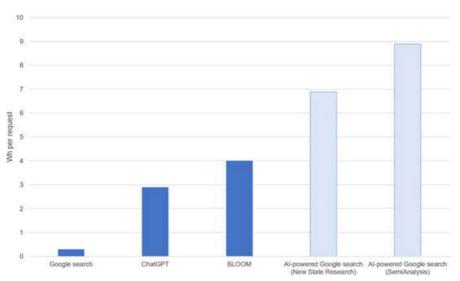
**Work Environments:** Offices, factories and other workplaces can be designed ergonomically. Choosing the right furniture, arrangement of workstations and lighting allows employees to work more comfortably and efficiently.

**Product Design:** Any product should be designed in accordance with the needs and physical capacities of the users. For example, the shape and buttons of a computer mouse should support natural movements of the hands and wrists.

<u>**Transportation Vehicles:**</u> Automobiles, airplanes, and other transportation vehicles should be designed with long-term use by drivers and passengers in mind. The ergonomics of seats, steering wheels and other control mechanisms are important.

**Healthcare Industry:** Ergonomics has a major impact in the healthcare industry on the care of patients and the way healthcare professionals do their jobs. The comfort and safety of both patients and healthcare professionals must be considered.

**Ultimately,** ergonomics emphasizes the importance of human-centered design. A good ergonomic approach can help people live healthier, happier and more productive lives. Therefore, understanding and applying the principles of ergonomics plays an important role in many aspects of design, production and business.



Prepared by Dr. Mustafa NURI

Some News in the World of Science

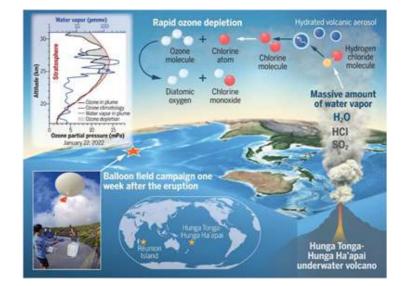
In a study published in the October 2023 issue of The Journal of Joule, Alex de Vries, a PhD candidate at the Amsterdam School of Business and Economics, evaluated the energy consumption of various artificial intelligence applications. In this research, it is predicted that the energy consumption of artificial intelligence applications such ChatGPT, which has ลร increased in the last two years, will increase significantly in the near future.

#### Chemically recyclable plastic

In an article published in the Journal of Science, a research team from Colorado State University has demonstrated an efficient way to recycle polymers formed by combining different blocks back into their original components after use. It has been stated that these polymers are very useful because they have the desired mechanical properties in a wide temperature range (between -60  $\circ$  C and 128  $\circ$  C).

#### The ozone layer is affected by volcanic activities

20zone loss occurred in the stratosphere as the Hunga Tunga volcano, which erupted in 2022, injected high volumes of molecules into the water stratosphere. This article, which sheds light on the effects of such explosions on the atmosphere climate system, and was published in the Journal of Science in October (https://www.science.org/doi/full/ 10.1126/science.adg2551).



#### ARTIFICIAL NEURAL NETWORKS APPLICATION FOR POSITION CONTROL OF ROBOT ARM WITH PNEUMATIC ARTIFICIAL MUSCLE

#### Kübra TÜRE

Zonguldak Bülent Ecevit University, Graduate School of Applied and Natural Sciences, Department of Mechanical Engineering, Zonguldak, Türkiye

#### H. Alper ÖZYİĞİT

#### Istanbul Gelişim University, Faculty of Engineering and Architecture, Department of Mechatronics Engineering, Istanbul, Türkiye

#### ABSTRACT

In this study, a 3-degree-of-freedom robot arm driven by pneumatic artificial muscles is designed. The aim is to control the position of the end point of robot arm which has a rotating base that can rotate 360 degrees around its own axis and two arms supported by expandable artificial muscles. The design and kinematic analysis of the robot arm with pneumatic artificial muscles were initially carried out by using Solidworks software. Then, this analysis was repeated using Matlab Simulink, and the position control of the robot arm was simulated. The Cartesian coordinates (x, y, z) of 3-DOF robot arm end are obtained due to the change of base rotation angle and pneumatic arm lengths.

Finally, the data that are obtained above are used for training an artificial neural network program. The base rotation angle and arm lengths are taken as input values while the coordinates of the arm end (x, y, z) are taken as output values, as well. The program is tested with the input-output values used in training, and the results seemed very close to the real ones. Thus, the position control of the system is elevated to a situation which can respond to different input values within reasonable physical limits by using artificial neural networks

Keywords: Pneumatic Artificial Muscles, Position Control, Artificial Neural Networks

## Architectural Education Association Architecture Student Awards MimED 2023



Architectural Education Association MimED2023 Student Project Competition has started. It will be held for the twenty second time this year. It covers the '2022-2023 fall', '2022-2023 spring' and '2022-2023 summer' semesters of the architectural project studios of students enrolled in undergraduate programs in the Department of Architecture, and the '2022-2023 summer' semesters within the scope of the summer school conducted in some of our universities. Detailed information and the renewed specifications can be accessed on the website www.mimed.org.tr.

## ACADENICAND SCIENTIFIC ACTIVITIES

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#### MONTHLY BULLETIN/ OCTOBER 2023

#### SOFTWARE ENGINEERING

Our Software Engineering Department Head Mr. Dr. Serkan Gönen, along with our Faculty of Engineering professors Prof. Dr. Cemalettin Kubat, Research Assistant Mehmet Ali Barışkan and our Computer Engineering Master's student Furkan Onur, have prepared a paper titled "Detection of Cyber Attacks Targeting Autonomous Vehicles Using Machine Learning", which has been published within the scope of the IMSS'23 conference by Springer Nature Singapore.

Our Software Engineering Department Head Mr. Dr. Serkan Gönen, along with our Faculty of Engineering professors Prof. Dr. Cemalettin Kubat, Dr. Elham Pashaei, Research Assistant Mehmet Ali Barışkan and our Computer Engineering Master's student Ahmet Nail Taştan, have prepared a paper titled "Detection of Manin-the-Middle Attack Through Artificial Intelligence Algorithm", which has been published within the scope of the IMSS'23 conference by Springer Nature Singapore.

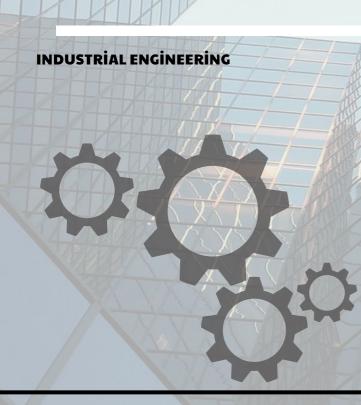
Our Software Engineering Department Head Mr. Dr. Serkan Gönen, along with Research Assistant Mehmet Ali Barışkan, have prepared a paper titled "A Novel Approach Detection for False Data Injection, and Man in the Middle Attacks in IoT and IIoT", which has been published within the scope of the 2023 IEEE PES GTD International Conference and Exposition (GTD) conference by IEEE.

Assoc. Dr. İlke CİRİTCİ participated in the 5th International Disaster and Resilience Congress between 11 and 13 October

Working in Industrial Engineering Department, Res. Ass. Nurdan Tüysüz's article titled "A novel decomposed Z-fuzzy TOPSIS method with functional and dysfunctional judgments: An application to transfer center location selection" has been published in the SCI-Expanded indexed and Q1 journal "Engineering Applications of Artificial Intelligence".

Working in Industrial Engineering Department, Assist Prof. Dr. Didem Yılmaz's paper titled "Proposal For Reorganisation of Bedroom Places And Wer Areas Of Nursing Homes Belonging To Private Institutions In Istanbul According to Elderly People" was presented as a poster presentation at the "Central Black Sea Disabled and Elderly Health Congress" held in Samsun on 21-22 October.

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ARCHITECTURE

#### MONTHLY BULLETIN/ OCTOBER 2023



**CIVIL ENGINEERING** 

MECHATRON

Working in Industrial Engineering Department, Prof. Dr. Kenan Özden, Res. Ass. Duygu Tüylü and Industrial Engineering department graduate student Aleyna Beren Gürel paper titled "An Anthropometric Research on Turkish Adult Men and Women and Comparison with Previous Research Results" was presented at the 29th National Ergonomics Congress held by Çanakkale Onsekiz Mart University & Turkish Ergonomics Association in Çanakkale on 12-14 October.

On October 2, 2023, an orientation meeting was organized by our head of department Assist. Prof. Dr. Ahmad Reshad NOORI to give general information about the department and the university to our newly enrolled students.

The conference papers titled "Experimental Study on Effectiveness of Tire Waste-Sand Cushion on Seismic Performance of Retaining Wall" and "Source Parameters of the 2023 Kahramanmaraş Earthquake Aftershocks in the East Anatolian Fault Zone" prepared by one of our department member, Res. Asst. Bilge Sultan DEMİRTAŞ was accepted in the 7th International Conference on Earthquake Engineering and Seismology (7ICEES).

Prof. Dr. H. Alper ÖZYİĞİT and his thesis student Kübra TÜRE participated in the 4th International Mediterranean Scientific Research Congress in June with the article titled "ARTIFICIAL NEURAL NETWORKS APPLICATION FOR POSITION CONTROL OF ROBOT ARM WITH PNEUMATIC ARTIFICIAL MUSCLE "

The article titled "Investigation of the Effect of Hot Fluid on Deformation in T-Shaped Pipes by FSI Method Using Different Material" prepared by Assist. Prof. Dr. Haydar İzzettin KEPEKÇİ and Assoc. Prof. Dr. Erman ASLAN was published by the Sakarya University Journal of Science in June.

The article titled "Investigation of the effect of the use of top deflectors on aerodynamic performance in vehicles with CFD analysis" prepared by Assist. Prof. Dr. Haydar İzzettin KEPEKÇİ was published by the International Journal of Automotive Engineering and Technologies in June.

#### İSTANBUL GELİŞİM UNIVERSITY GRADUATE TRACKING SYSTEM

Graduate Tracking System (METSIS) was opened to determine and follow the

current status of our graduates, such as employment and post-graduation education, and to create statistical data. Istanbul Gelişim University has activated METSİS in order to strengthen its relations with graduates and contribute to the employment of graduates. Our graduates can become members of METSİS free of charge. (metsis.gelisim.edu.tr)

Our graduates who are METSIS members can follow our job postings by updating their personal profiles.

How do I become a member of METSIS?

Log in to metsis.gelisim.edu.tr platform. You can follow the postings in the open positions box. To apply for the postings, you can create an account from the New Candidate box. After creating an account, you can view job postings and apply for suitable positions from the postings tab at the top.

#### GRADUATE SATISFACTION SURVEY

Dear IGU Alumni,

Within the scope of the Strategic Plan, a "Graduate Evaluation Survey" has been developed in order to obtain your opinions as an important stakeholder and to determine the program and course outcomes in line with these opinions.
If you want to see your university in higher rankings, we kindly ask you to fill out the survey and thank you for your participation.



Graduate Evaluation Survey: https://metsis.gelisim.edu.tr/