FACULTY OF ENGINEERING AND ARCHITECTURE

BULLETIN

● DECEMBER 2024 ●

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FACULTY OF ENGINEERING AND ARCHITECTURE

NEWS FROM THE FACULTY

MONTHLY BULLETIN

DECEMBER 2024

NEWS FROM THE FACULTY

● COMPUTER ENGINEERING ●

Erdi ACAR, who has been serving as a Research Assistant in the Computer Engineering Department at Istanbul Gelişim University since September 2023, has announced that he will take an important step in his career by joining Q&Co Quantum Computing Technology as a Senior Quantum Algorithm and Software Specialist.

During his tenure as a Research Assistant, Erdi ACAR contributed significantly to both the university community and the academic world with his valuable work in quantum computing and quantum machine learning. He will carry his expertise in these fields to his new role.

Explaining his decision to transition, Erdi ACAR stated: “During my time at Istanbul Gelişim University, I gained invaluable experiences both academically and personally. However, it is now time to open a new chapter in my career and focus on my goals from a broader perspective.”

In his new role, Erdi ACAR will play an active part in the development of quantum algorithms and the implementation of software solutions, aligned with Q&Co’s innovative vision. He expressed his enthusiasm, saying, “This position at Q&Co offers a great opportunity to transfer my academic expertise into industrial applications. I am thrilled to be involved in exciting projects.”

Erdi ACAR’s new position at Q&Co is expected to enable him to make a broader impact in both academic and industrial domains, while his contributions to international projects are anticipated to leave a mark on the quantum computing community.

The Istanbul Gelişim University family extends its gratitude to Erdi ACAR for all his contributions thus far and wishes him great success in his new role at Q&Co

● COMPUTER ENGINEERING ●

TURKEY'S FIRST QUANTUM COMPUTER QUANT INTRODUCED


TURK PATENT

PATENT BELGESİ

No: TR 2022 013490 B

Buluş Başlığı

DRONLA BALIK AVLAMA SİSTEMİ

Patent Sahibi

İSTANBUL GELİŞİM ÜNİVERSİTESİ


TURK PATENT

(54) Buluş Başlığı

DRONLA BALIK AVLAMA SİSTEMİ

Prof. Dr. Abdulsamet HAŞILOĞLU, a faculty member of the Computer Engineering Department at Istanbul Gelişim University, has received a patent for his innovative “Drone Fishing System.” This groundbreaking system utilizes artificial intelligence-based technologies to enable the detection of fish schools and high-performance fishing, making a significant contribution to the fishing industry.

The system includes an autonomous drone with advanced flight capabilities, sensors such as ultrasonic and radar, a camera that processes images of the water surface and underwater, artificial intelligence modules, and innovative components that enhance environmental perception. Powered by solar energy, the system ensures accurate detection of fish schools, data analysis, and communication of results to the fishing unit, offering a sustainable and efficient fishing method.

NEWS FROM THE FACULTY

● INDUSTRIAL ENGINEERING ●

Working at IGU Faculty of Engineering and Architecture, Department of Industrial Engineering, Assist. Prof. Mert Yıldırım, on December 19 2024 introduced our department laboratory, department and university to high school students. We would like to thank our valuable instructor who shared the meaning and areas of duty of Industrial Engineering, the department curriculum, laboratory and physical facilities, and our educational objectives and principles with high school students.

Asst. Prof. Mert Yildirim, who works in the Department of Industrial Engineering at Istanbul Gelişim University, Faculty of Engineering and Architecture, visited the students of Avcılar Imam Hatip High School on December 27, 2024. We would like to thank Asst. Prof. Mert Yildirim for introducing our university, department and facilities and sharing our goals and principles with the students. We would like to thank everyone who contributed to this meaningful event that inspired our students

NEWS FROM THE FACULTY

● INDUSTRIAL ENGINEERING ●

Asst. Prof. Mert Yildirim attended the "HBR Türkiye Business Summit 2024" event as an invited guest

Asst. Prof. Mert Yildirim, a faculty member from the Department of Industrial Engineering at the Faculty of Engineering and Architecture at Istanbul Gelisim University, attended "HBR Türkiye Business Summit 2024" as an invited guest of Harvard Business Review Türkiye. The event was hosted by Harvard Business Review Türkiye on December 12, 2024, at Swissôtel The Bosphorus in Istanbul.

During the event, industry experts and thought leaders shared their experiences and insights, discussing the dynamics shaping the present and future of the business world. A wide range of topics was addressed, including sustainability, technology, leadership, customer experience, artificial intelligence, and organizational culture.

NEWS FROM THE FACULTY

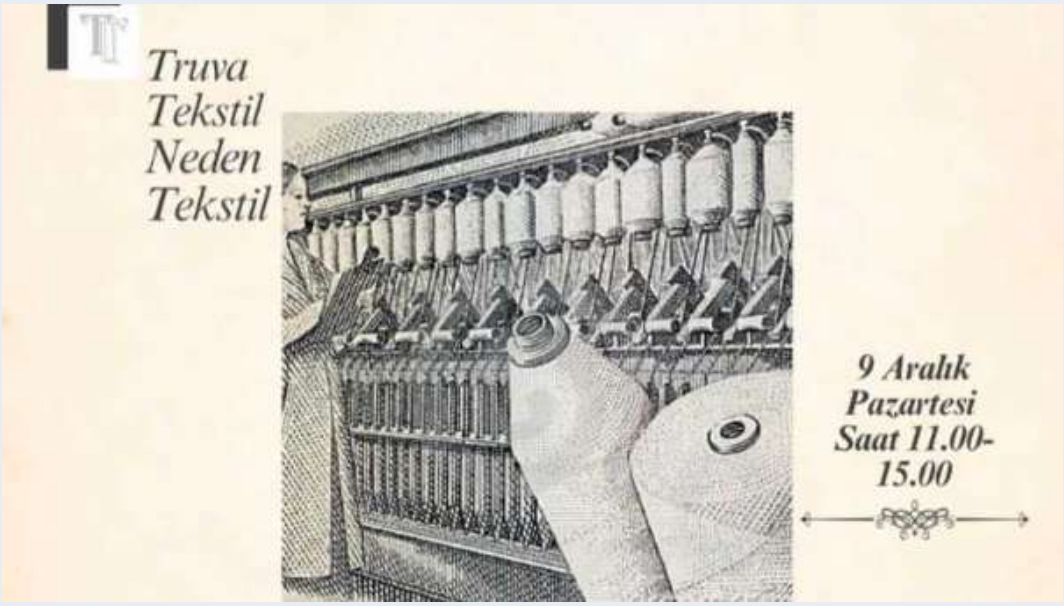
● INDUSTRIAL ENGINEERING ●

Inspiring Technical Trip for Young Engineers by Truva Tekstil

Students from Istanbul Gelişim University's Industrial Engineering Club visited the facilities of Truva Tekstil. This meaningful technical trip marked an important step in enhancing our students' professional knowledge and skills.

During the visit, they had the opportunity to closely observe Truva Tekstil's technology-driven processes and innovative business models. The students particularly experienced the operation of knitting machines firsthand, transforming their theoretical knowledge into practical understanding and increasing their awareness of the industry.

Such technical trips play a vital role in expanding our students' industrial knowledge base and helping them shape their career goals. We extend our gratitude to the Truva Tekstil family for their support of education and their warm hospitality.



NEWS FROM THE FACULTY

● INDUSTRIAL ENGINEERING ●

Effective CV and LinkedIn Training from Istanbul Gelişim University Industrial Engineering Club

Istanbul Gelisim University Industrial Engineering Club organized an online training on Tuesday, December 17 with the participation of Career Counselor and Human Resources Specialist Özge Özkan Gezergen. During the event, important information was provided to the participants on topics such as professional use of LinkedIn, effective CV preparation techniques and tips for standing out in business life. We would like to thank all the students who participated in the training and wish them success in their career journeys!

Club Promotion Week Excitement at Istanbul Gelişim University

The Club Promotion Week held at Istanbul Gelişim University between December 17-20 brought the energy of the campus to its peak. More than 60 student clubs introduced their activities with the stands they opened, providing visitors with enjoyable moments.

The Industrial Engineering Club also took part in the event and had the opportunity to introduce their work and activities. This event, which was held with the participation of student clubs, both gained new members and strengthened social connections.

CIVIL ENGINEERING

"INVESTIGATION OF THE STRENGTH AND DURABILITY PERFORMANCE OF GEOPOLYMER COMPOSITES WITH DIFFERENT RATIOS OF FIBER AND NANOMATERIAL ADDITIVES"

The project titled "Investigation of the Strength and Durability Performance of Geopolymer Composites with Different Ratios of Fiber and Nanomaterial Additives", led by Assoc. Prof. Dr. Anıl Niş, one of our Civil Engineering faculty members, and Assist. Prof. Dr. Hamit Öztürk as a researcher, was entitled to be supported within the scope of TÜBİTAK 3501 Career Development Program. The project, which offers innovative approaches in the field of advanced material technologies, aims to make significant contributions to the sector in the fields of environmental sustainability and the production of durable building materials. The study will examine the use of fibers and nanomaterials at different ratios in order to increase the performance and durability of geopolymer composites. In this context, it is aimed to develop environmentally friendly and high-performance building materials.

NEWS FROM THE FACULTY

CIVIL ENGINEERING

The system, developed by one of our Civil Engineering faculty members, Assist. Prof. Dr. Aylin Ece Kayabekir, together with researchers from Istanbul University-Cerrahpaşa and Istanbul Aydın University, which offers an innovative solution against external influences such as natural disasters that pose a threat to building safety, has been registered as a patent. The invention is related to the building information, building health monitoring and disaster management system that enables the measurement of structural movements (displacements) that may occur in structures such as buildings, bridges, retaining walls due to dynamic forces affecting structures, especially earthquakes, floods and natural disasters, as well as situations such as the movement of heavy tonnage vehicles, excavation / excavation works, and when damage is detected as a result of the measurement, the rescue teams are dispatched to the region by warning.

NEWS FROM THE FACULTY

● CIVIL ENGINEERING ●

Istanbul Gelisim University Club Promotion Week

Istanbul Gelisim University Club Promotion Week, organized between December 17-20, started with the intense participation of students. Various clubs within the university had the opportunity to meet new members by making their own promotions. In this meaningful event, the Civil Engineering Club set up its stand on December 17 and 18 and met with students. The club stand attracted the attention of participants from many different departments, especially engineering students. Club members informed the visitors by sharing their experiences, projects and planned activities in the construction sector. Especially the presentations about sectoral promotions, technical trips, training seminars and career-oriented workshops were one of the most striking aspects of the stand. While the projects and technical documents exhibited at the stand provided an inspiring perspective on the discipline of civil engineering, the opportunity to communicate one-to-one with the club members provided a friendly environment for the students. Thanks to such events, Istanbul Gelisim University students can both live university life more actively and take important steps towards their professions.

NEWS FROM THE FACULTY

● CIVIL ENGINEERING ●

Technical Trip to ISFALT Asphalt Facility by IGU Civil Engineering Club

Istanbul Gelisim University (IGU) Civil Engineering Club organized a technical visit to ISFALT Asphalt Facility on December 19 in order to contribute to the professional development of students. This visit to ISFALT, one of the leading companies in the sector, offered civil engineering students the opportunity to combine their theoretical knowledge with practical applications. Within the scope of the technical trip, ISFALT experts explained the asphalt production processes to the students in detail. During the trip, students were informed about critical issues such as modern production technologies, asphalt components and quality control processes. Especially the use of environmentally friendly and sustainable methods in asphalt production was an important topic that attracted the attention of the students. Participants also had the chance to witness the transformation process of asphalt from raw material to final product by examining the production facilities on site. ISFALT officials gave examples of the work carried out in the field and provided students with practical information about the sector. The president of the Civil Engineering Club stated that the technical trip was an important step in expanding students' professional vision and shaping their future career plans. Participants expressed their satisfaction with the trip and expressed their wish to continue such activities. The Civil Engineering Club plans to add new ones to the technical trips that contribute to students' educational processes and aim to familiarize them with the sector closely. This meaningful visit to ISFALT Asphalt Facility was an unforgettable experience for the club members.

CIVIL ENGINEERING CLUB AND DEPARTMENT HEAD MEETING HELD

Assist. Prof. Dr. Ahmad Reshad NOORI, Head of the Civil Engineering Department, and representatives of the Civil Engineering Club came together at the meeting. The agenda was to diversify and increase technical trips and club activities in order to support the professional and personal development of the students of the department. Assist. Prof. Dr. Ahmad Reshad NOORI, Head of the Civil Engineering Department, emphasized the importance of student clubs in university life and emphasized that technical trips and professional activities play a critical role in helping students gain sectoral experience and prepare for their careers after graduation. During the meeting, students' suggestions were listened to and new strategies were determined to ensure more effective cooperation between the department and the club.

NEWS FROM THE FACULTY

● MECHATRONICS ENGINEERING ●

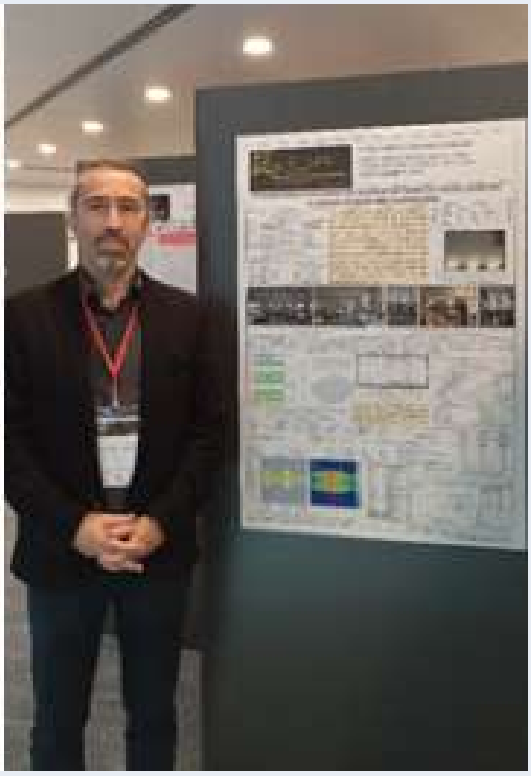
On 05.12.2024, Mr. Ali İlker Selviboy, FOLYO PRODUCTION MANAGER at ASSAN ALÜMİNYUM, met with the students in the Manufacturing Methods course of Assist. Prof. Dr. Cansu Noberi, Department of Mechatronics Engineering. His educational and complementary seminar titled “Production Methods in the Aluminum Sector” was highly appreciated by the students. After the seminar, the students made important contributions to themselves by discussing the issues they wondered about their possible career plans.

During the Istanbul Gelisim University Club Promotion Week held between December 17-20, our department and our club were introduced by the Mechatronics Engineering Club and member registration was received.

● ARCHITECTURE ●

PARTICIPATION IN INTERNATIONAL CONFERENCE

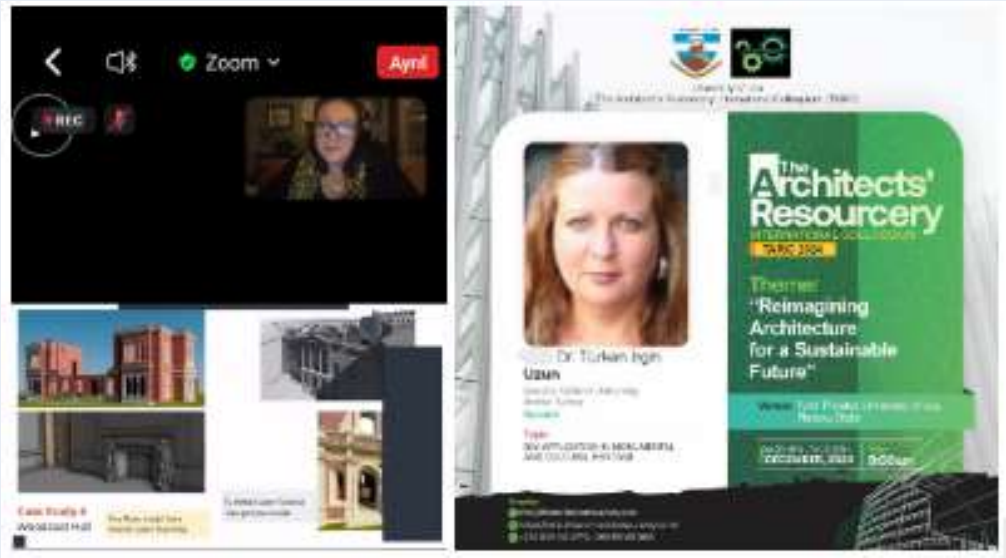
The full paper titled “Performance evaluation in terms of visual comfort in design studios and classrooms” and the poster prepared by Assist. Prof. Semih Göksel YILDIRIM (PhD) from Istanbul Gelişim University Department of Architecture and Prof. Mehmet Şener KÜÇÜKDOĞU (PhD) emeritus from Istanbul Technical University Department of Architecture, have been accepted at the “International Balkanlight 2024” conference. The authors of the mentioned paper and the poster attended the conference held at Istanbul Lütfi Kırdar Congress Center on November 28-29, 2024.



NEWS FROM THE FACULTY

● ARCHITECTURE ●

On 11.12.2024, Master's student Kevi Beqiraj and his advisor Assoc. Prof. Türkan UZUN gave a presentation titled "BIM Applications in Monumental and Cultural Heritage" as the invited keynote speakers at the international congress titled "The Architect's Resourcery International Colloquium (TARIC) 2024".



NEWS FROM THE FACULTY

● ARCHITECTURE ●

The renovation of J block entrance and foyer spaces of IGU

The “design and construction project” for the renovation of Istanbul Gelisim University J block entrance and foyer spaces was completed with the collaborative work of the Faculty of Engineering - Architecture and Faculty of Fine Arts. The project team consists of Assist. Prof. Semih G. YILDIRIM (PhD) from the Department of Architecture, Assist. Prof. İbrahim EROL (PhD) from the Department of Interior Architecture and Environmental Design and Melek ÇELİK and Havvanur ÇAŞKA student of the Department of Interior Architecture and Environmental Design. The site supervision was carried out jointly by the “Project Team” and the Department of Construction Affairs. The opening of the entrance foyer was held together with the exhibition of the Department of Interior Architecture and Environmental Design, and the project poster also participated in the exhibition. The project team received plaque and certificate of appreciation for the completed work.

NEWS FROM THE FACULTY

● ARCHITECTURE ●

On 13.12.2024, within the scope of the MIM105 Mimarlıkta Temel Kavramlar course, under the direction of Assoc. Prof. Türkan UZUN, as an event of Istanbul Aura, a lecture titled “Media Architecture” by invited speaker Canadian designer Bruce Ramus was attended at MSGSU Sedat Hakkı Eldem Auditorium. Students were informed about current innovative designs with examples of the use of light on the facade.

Galataport historical peninsula; After the conference, Galataport and its surroundings, historical buildings in Karaköy, French Gateway, social and cultural landmarks were pointed out. In addition to the buildings, technical information was given about the historical peninsula and port trade.

NEWS FROM THE FACULTY

● ARCHITECTURE ●

During the visit, the Istanbul Metropolitan Municipality Regional Presidency of the Chamber of Architects was visited. During the visit, information was given about the library and activities. Professional Membership, library, and journals were examined. In a meeting attended by the members of the board of directors of the Chamber and our department Lecturer Ömer YEŞİLDAL, information was given about the work of the Chamber of Architects.

He participated in the Master's thesis defense titled "The Use of Cast Iron and Steel in 19th Century Istanbul Architecture" prepared by Architect Beyza Nur Tan in the Architecture History and Theory program of the Architecture Department of the Institute of Science of Yıldız Technical University, together with Dr. Murat ARAPOĞLU, Prof. Dr. Nuran KARA PILEHVARIAN and Assoc. Prof. Işıl ÇOKUĞRAŞ.

NEWS FROM THE FACULTY

● ARCHITECTURE ●

Burcu Korkut, Research Assistant at the Department of Architecture, who participated in the İlhan Tekeli Thesis Awards, organized annually by the İlhan Tekeli Foundation for Urbanism Culture (İTŞKV), with her master's thesis titled "The Externalization of Urban Praxis in the Dialectic of Consumption and Production: Street Art", which she completed in 2023, has qualified for the second stage after the evaluation of the selection committee. In 2023, the İlhan Tekeli Thesis Awards received 90 thesis applications from a wide range of fields including urban and regional planning, architecture, conservation and restoration, urban design, political science, public administration, urban politics, sociology, landscape, geography, transportation, traffic, environmental sciences, economics, and labor economics. The theses were evaluated in two stages by 30 selection committee members from various universities and fields. Within the scope of this year's İlhan Tekeli Thesis Awards, which was held on December 13, 2024 at İPA Campus, Florya with the support of Istanbul Planning Agency, the poster exhibition of the theses of the researchers who made it to the second stage, including the work of Research Assistant Burcu Korkut, can be visited at İPA Campus until the end of December 2024.

NEWS FROM THE FACULTY

● ARCHITECTURE ●

On 02.12.2024, the project jury was held in the MIM107 Mimari Tasarıma Giriş I course, conducted by Lecturer Burak Kaan YILMAZSOY, and Dr. Şirin BAYRAM was invited to the jury.

NEWS FROM THE FACULTY

● ARCHITECTURE ●

On 25.12.2024, students of the Department of Architecture (English) attended the event at Istanbul Modern to listen to the presentation of Architect Alper DERİNBOĞAZ, who has many awards and implemented projects recognized worldwide. The students were informed about new projects such as the innovative museum and the Tog Brand Vehicle Center.

FACULTY OF ENGINEERING AND ARCHITECTURE

ACTUEL TOPICS IN ENGINEERING AND ARCHITECTURE

MONTHLY BULLETIN

DECEMBER 2024

TURKEY'S FIRST QUANTUM COMPUTER QUANT INTRODUCED

PREPARED BY:RES. ASST. ERDİ ACAR

Turkey has achieved a technological milestone by developing its own quantum computer. Named "QuanT," this computer, developed by TOBB University of Economics and Technology (TOBB ETÜ), was unveiled in a grand ceremony.

With a 5-qubit capacity, QuanT represents a significant step forward in Turkey's advancements in quantum technology. Quantum computers surpass the capabilities of classical computers, offering groundbreaking solutions in critical fields such as cybersecurity, artificial intelligence, optimization, and advanced material science. QuanT stands out as a tool to strengthen Turkey's technological independence in these strategic sectors.

The launch ceremony, held at the TOBB ETÜ Technology Center, attracted attention with its high-profile attendees. Prominent figures such as Vice President Cevdet Yılmaz, Presidency of Defense Industries Chairman Haluk Görgün, and TOBB President Rifat Hisarcıklıoğlu participated in the event. Speeches at the ceremony emphasized the impact of Turkey's quantum technology breakthrough on the national technology ecosystem and the global market.

ACTUEL TOPICS IN ENGINEERING AND ARCHITECTURE

● COMPUTER ENGINEERING ●

With the unveiling of QuanT, Turkey's goals in quantum technologies have become even more defined. Supported by the Presidency of Defense Industries, ASELSAN, and TOBB ETÜ, plans are underway to establish a Superconducting Chip Manufacturing Facility. This facility is expected to be a critical step toward the development of higher-capacity quantum computers.

As the quantum technology market is projected to reach a value of $2 trillion by 2035, Turkey's investments in this field aim to enhance its global competitiveness. QuanT is not only a technological achievement but also a symbol of Turkey's ambition in science and technology.

The development of QuanT aspires to inspire young researchers and entrepreneurs. With this step, Turkey is opening doors to groundbreaking projects in both the scientific and industrial domains.

INDUSTRY 5.0: THE UNION OF POWERS BETWEEN HUMAN AND MACHINE

PREPARED BY:RES. ASST. DUYGU TÜYLÜ

Industry 5.0 opens the doors to an era where technology integrates with human values. This new industrial revolution is not limited to automation and increased efficiency; it also aims to add meaning to production processes by combining human creativity and emotional intelligence with technology.

At the core of Industry 5.0 lies human-machine collaboration. Robots and artificial intelligence reduce physical and mental workload in production processes, while leaving people more space for strategic and creative tasks. For example, wearable technologies and augmented reality-supported devices increase the safety of employees while also allowing them to work more efficiently.

One of the most important differences of this period is that the use of technology is aligned with environmental sustainability and social welfare goals. Industry 5.0 promises not only to create smarter production processes, but also to adopt a human-centered approach.

As a result, with Industry 5.0, machines are no longer just tools that carry out orders, but are becoming teammates alongside people. This unique combination of human intelligence and technology seems to make the business world of the future more innovative and sustainable.

ACTUEL TOPICS IN ENGINEERING AND ARCHITECTURE

● ELECTRICAL AND ELECTRONICS ENGINEERING ●

WEARABLE TECHNOLOGY: COULD BODY HEAT BE THE NEXT BIG RENEWABLE ENERGY SOURCE?

PREPARED BY:RES. ASST.ELİF ÖZTÜRK

Using your body heat to power a watch or personal air conditioning system isn't as far-fetched as it sounds with this latest breakthrough in wearable technology.

Body heat-powered devices are now closer to home with a new breakthrough in wearable technology.

You might not have thought that body heat could be a renewable energy source. But given the increasing popularity of electrically powered devices, the exponential increase in the need for batteries, and the pressure this puts on planetary resources, researchers have been testing this alternative for a while now.

It seems we all now have the potential to become a sustainable energy source for wearable electronics. But there are some challenges to commercializing this technology.

One of the challenges has been making these wearable devices flexible enough to fit around the human body.

Researchers at the Queensland University of Technology (QUT) in Australia have overcome this problem by developing a new, ultra-thin, flexible layer that makes the devices comfortable and efficient

ACTUEL TOPICS IN ENGINEERING AND ARCHITECTURE

MECHATRONICS ENGINEERING

GREEN TECHNOLOGIES IN MECHATRONICS: THE KEY TO A SUSTAINABLE FUTURE

PREPARED BY: RES. ASST. UFUK ATEŞOĞLU

As the need for sustainability and environmentally friendly technologies increases worldwide, mechatronics engineers have made great efforts to meet these needs. This discipline, which brings together electrical-electronics, mechanical, computer and control engineering, also carries out important work in the field of developing and implementing green technologies. If we examine the contributions of mechatronics engineering to environmentally friendly technologies, we can list them under five heading

Renewable Energy Systems

Mechatronic systems play a vital role in the design and optimization of renewable energy systems such as solar panels and wind turbines. Automated monitoring systems that increase the energy efficiency of solar panels or sensor-based control mechanisms that improve aerodynamic performance in wind turbines are products of mechatronic technologies. In this way, energy losses are reduced and more sustainable energy is achieved.

Electric and Autonomous Vehicles

In order to reduce dependence on fossil fuels, the spread of electric vehicles is very important from an environmental point of view. Mechatronics engineers are working on many innovations from electric motors to energy recovery systems. In addition, autonomous vehicle technologies can reduce fuel consumption and carbon emissions by reducing urban traffic density.

Smart Manufacturing Systems

With Industry 4.0, smart manufacturing systems optimize energy and material consumption, resulting in a more environmentally friendly production process. Mechatronics technologies can reduce waste and increase production efficiency by using robotic systems, sensors and artificial intelligence in production lines. For example, automation systems that optimize a factory's energy needs can lower costs and reduce its carbon footprint.

GREEN TECHNOLOGIES IN MECHATRONICS: THE KEY TO A SUSTAINABLE FUTURE

PREPARED BY: RES. ASST. UFUK ATEŞOĞLU

Recycling Technologies

Reusing waste and improving recycling processes is also an important part of green technology applications. Mechatronic systems, smart sorting machines, robotic arms and precise control mechanisms can make recycling processes more efficient.

Mechatronics and Sustainability in Agriculture

In agricultural countries like Turkey, smart agricultural technologies provide both environmental and economic benefits. Mechatronic engineering is used in areas such as precision irrigation systems that reduce water consumption, sensor machines that optimize fertilizer use, and drone technologies that monitor the production process. These innovations reduce the environmental impact of agriculture, making it more sustainable**.**

Looking Toward the Future

The contributions of mechatronics engineering to green technologies will undoubtedly increase in the coming years. Concepts such as carbon neutral production targets, energy efficiency and sustainability will continue to be one of the focus points of the mechatronics discipline. The potential of this field offers a significant chance to create an environmentally friendly world.

● SOFTWARE ENGINEERING ●

TECHNOLOGY OPPORTUNITIES
PREPARED BY: RES. ASST.SEVCAN BULUT

Education and Young Talent: Opportunities in Technology Are Expanding

In dynamic fields such as software and computer engineering, efforts to integrate young talent into the industry are progressing rapidly. Universities, educational institutions, and technology companies are developing various projects and programs to help young people enhance their technological skills. These initiatives aim to ensure that young people take on more active roles in the technology sector.

The Contribution of Young Talent to the Industry

Today, young individuals offer immense potential in areas such as artificial intelligence, data science, and software development. In addition to theoretical education provided in universities, industry projects and internship programs allow students to work on real-world problems and improve their skills. These opportunities accelerate individual career development while meeting the industry's demand for qualified workforce.

Education and Mentorship Opportunities

Many programs not only provide young people with technical skills but also help them gain social competencies such as leadership, communication, and problem-solving. Mentorship provided by experienced professionals supports young individuals in taking solid steps in their career journeys. Additionally, hands-on training gives participants the chance to test their theoretical knowledge in practice.

Access to Technology Infrastructure

Projects aimed at young talent provide participants with access to state-of-the-art tools and infrastructure. These resources accelerate software development and research processes, enabling innovative solutions to emerge. Furthermore, hackathons, competitions, and workshops organized for young people offer significant opportunities to quickly enter the industry**.**

FACULTY OF ENGINEERING AND ARCHITECTURE

ACADEMIC AND SCIENTIFIC ACTIVITIES

MONTHLY BULLETIN

DECEMBER 2024

ACADEMIC AND SCIENTIFIC ACTIVITIES

●INDUSTRIAL ENGINEERING ●


COST ANALYSIS AND DIGITAL TWIN APPLICATION OF A PRODUCTION LINE IN AN ALUMINUM MECHANICAL PROCESSING PLANT USING A SIMULATION PROGRAM

Prof. Dr. Cemalletin Kubat's new publication has been published

Prof. Dr. Cemalettin Kubat a faculty member of the Industrial Engineering Department, has had his publication titled "Cost Analysis an Digital Twin Application Of A Production Line In An Aluminum Mechanical Processing Plant Using A Simulation Program" published in the "9. International Azerbajian Congress on Life, Engineering, Mathematical, and Applied Sciences"

We wish Prof. Dr. Cemalettin Kubat success for his future works


Optimizing Location Selection for International Education Fairs: An Interval-Valued Neutrosophic Fuzzy Technique for Order of Preference by Similarity to Ideal Solution Approach

Res. Asst. Duygu Tüylü's new article has been published

Working in Industrial Engineering Department, Res. Asst. Duygu Tüylü's article titled "Optimizing Location Selection for International Education Fairs: An Interval-Valued Neutrosophic Fuzzy Technique for Order of Preference by Similarity to Ideal Solution Approach" have been published in the SCI-Expanded indexed Journal of "Sustainability"

We wish Res. Asst. Duygu Tüylü success for her future works

ACADEMIC AND SCIENTIFIC ACTIVITIES

● CIVIL ENGINEERING ●

Assist. Prof. Dr. Esra YALÇIN has joined to Civil Engineering Academic Staff.

İAssist. Prof. Dr. Ahmad Reshad NOORI, Head of Civil Engineering Department, has started to work as an editor in these journals, namely Adıyaman Üniversitesi Mühendislik Bilimleri Dergisi, ALKÜ Fen Bilimleri Dergisi and Teknoloji Dergisi.

Assist. Prof. Dr. Ahmad Reshad NOORI, Head of Civil Engineering Department, prepared an article titled "Üç Farklı Metasezgisel Algoritma Kullanılarak Petek Kirişlerin Yer Değiştirme Optimizasyonu" with his PhD student Marwan Abdulkareem Shakir ALBAYATI and published it in Çukurova University Engineering Faculty Journal.

Assist. Prof. Dr. Yasin PAŞA, one of our Civil Engineering faculty members, prepared an article titled "Ceyhan Havzası'nın Taşkın Frekans Analizi" with his PhD student Adil Abdulsahib Al-qazzaz Zaid Adil Abdulsahib AL-QAZZAZ and published it in Van Yüzüncü Yıl University Engineering Faculty Journal.

Assist. Prof. Dr. Esra YALÇIN, one of our Civil Engineering faculty members, prepared an article titled "Analysis of Fall Accidents from Scaffolding in the Construction Industry" as the sole author and published it in the Gradevinar journal, which is indexed in the Q3 category, in both Croatian and English languages.

ACADEMIC AND SCIENTIFIC ACTIVITIES

● MECHATRONICS ENGINEERING ●

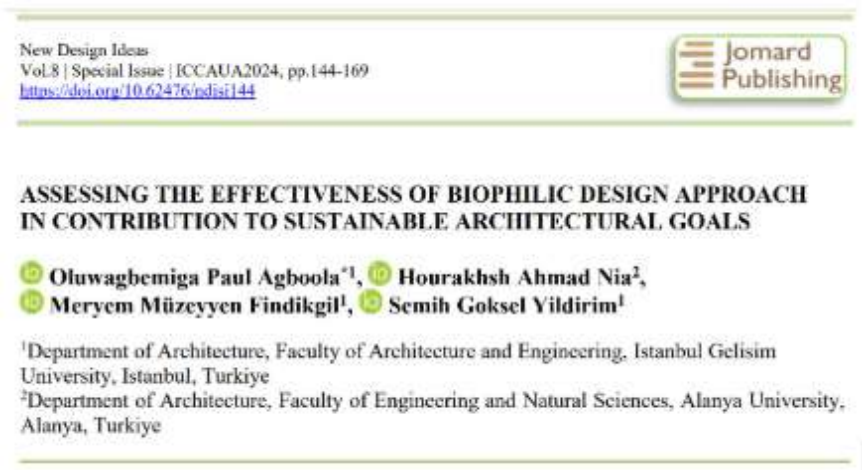
Mechatronics Engineering Department Faculty Member Prof. Dr. Hamdi Alper ÖZYİĞİT and his working group's article titled "The effect of extrusion and multidirectional forging processes on Gd and Y added AZ31 magnesium alloy" was published in the Gazi University Journal of Polytechnic.

Mechatronics Engineering Department Faculty Member Asst. Prof. Kenan ŞENTÜRK and his student Muhammet Aydın METİN's article titled "Static Analysis of Main Body Parts Designed Using Carbon Fiber Material for Hexacopter Structure Drone" was published in the Black Sea Science Journal (KFBD).

ACADEMIC AND SCIENTIFIC ACTIVITIES

ARCHITECTURE

The article titled “Assessing the effectiveness of biophilic design approach in contribution to sustainable architectural goals”, written by Assist. Prof. Oluwagbemiga Paul AGBOOLA (PhD), Assist. Prof. Meryem M. FINDIKGİL (PhD), Assist. Prof. Semih G. YILDIRIM from Department of Architecture and Assoc. Prof. Hourakhsh Ahmad NIA(PhD) from Alanya University, was published in the Scopus indexed journal “New Design Ideas”.


New Design Ideas
Vol.8 | Special Issue | ICCAUA2024, pp.144-169
https://doi.org/10.62476/ndisi144

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ASSESSING THE EFFECTIVENESS OF BIOPHILIC DESIGN APPROACH IN CONTRIBUTION TO SUSTAINABLE ARCHITECTURAL GOALS

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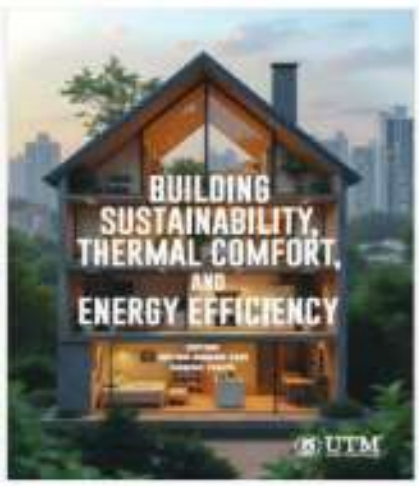
Assist. Prof. Semih G. YILDIRIM's article titled “Creating a model-based learning environment in BIM education through case studies” was published in the journal titled “Journal of Architectural Sciences and Application” scanned in TR Index.
Access to the article; https://dergipark.org.tr/en/pub/mbud/issue/88904/1465526

ACADEMIC AND SCIENTIFIC ACTIVITIES

ARCHITECTURE

Dr. Oluwagbemiga Paul AGBOOLA's article titled Smart Technologies For Istanbul's Urban Livability has been published as a book chapter.
O. P. AGBOOLA & F. L. B. REDZUAN (2024). Smart Technologies For Istanbul's Urban Livability In Book Chapter: Building Sustainability, Thermal Comfort, And Energy Efficiency. Edited By Sheikh Ahmad Zaki & Samar Thapa. Penerbit UTM Press. Universiti Teknologi Malaysia. ISBN 978-983-52-2117-0. Pp. 51-73. https://penerbit.utm.my/booksonline/building-sustainability-thermal-comfort-and-energy-efficiency/




CONTRIBUTORS

Assist. Prof. Murat ARAPOĞLU's article titled "Transoxiana Ribats in the 10th and 12th Centuries" was published in the Journal of Art and Human, DOI 10.5281/zenodo.13357254.

ACADEMIC AND SCIENTIFIC ACTIVITIES

AVIATION ENGINEERING

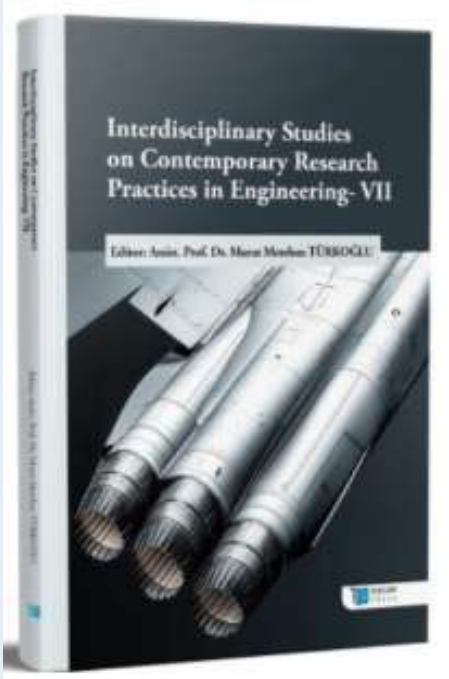
A New Publication from the Aviation Engineering Department of Gelişim University!

Dr. Lecturer Murat Metehan Türkoğlu, from the Department of Aviation Engineering at Gelişim University's Faculty of Engineering and Architecture, has published a new book titled "Interdisciplinary Studies on Contemporary Research Practices in Engineering-VII", serving as both the editor and contributing author.

This book focuses on theoretical and experimental studies in the research and development of materials used in technology-driven industries such as aerospace, automotive, construction, medicine, security, and energy. It covers topics including composite materials, carbon nanotubes, boron nanotubes, and various Al-Cu-Si alloys. Additionally, it examines the impact of artificial intelligence on complex operational processes such as evaluation, autonomous navigation, environmental sensing, data analysis, and decision-making. The conceptual role of AI in security and military applications (e.g., UAVs) is also explored in detail.

Dr. Murat Metehan Türkoğlu's valuable contribution significantly enriches the academic world and the field of engineering. With its innovative perspective and interdisciplinary approach, this work promises to serve as a key reference in its domain. We sincerely congratulate our esteemed faculty member on this remarkable achievement and wish him continued success in his future endeavors.

Türkoğlu, M. M. (ed.) (2024). Interdisciplinary Studies on Contemporary Research Practices in Engineering- VII. Özgür Publications.
DOI: https://doi.org/10.58830/ozgur.pub575



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