



**Istanbul Gelisim  
Vocational School**



# **IGVS**

## **Monthly E-Bulletin**

**June**

**2025**

**Volume 5 / Issue 4**

[myo.gelisim.edu.tr](http://myo.gelisim.edu.tr)

Dear Young People,

Istanbul Gelisim Vocational School, which started its education life in 2008, started to publish a monthly E-Bulletin as of 2021. We are very happy to bring you the June issue of our e-bulletin and to share with you the developments in our Vocational School. I believe you will enjoy reading our bulletin and I present my greetings and respect with the hope of meeting you in a new issue.

You can follow all the developments in our Vocational School on our social media channels.

Director of IGVS  
Assoc. Prof. Mehmet SOYAL



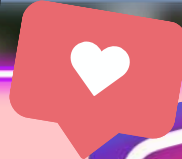
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*\* IGVS E-Bulletin has been  
prepared according to the Turkish  
Higher Education Quality Council  
(THEQC) criteria.*



# LEADERSHIP

## ACADEMICIANS FROM IGU ARE ON THE "BEST SCIENTISTS" LIST OF THE WORLD AND COUNTRIES!

Research.com, one of the world's leading research and academia portals, has announced the list of the "Best Scientists" of the world and countries. Istanbul Gelisim University academics were shown among the best scientists in Turkey and the world with their degrees in "Engineering and Technology", "Economy and Finance" and "Neuroscience".

Great success in the fields of "Engineering and Technology",  
"Economics and Finance" and "Neuroscience"!

Istanbul Gelisim University, which is modern, developing, producing and advancing with an understanding of quality education, stands out with its science, technology and R&D studies. According to the list created on the basis of the D-index created for the purpose of measuring, evaluating and monitoring the performance of scientists in terms of scientific productivity. 3 academicians from Istanbul Gelisim University were included in the list of "Best Scientists" with their successful work.

Istanbul Gelisim University Rector Prof. Dr. Bahri Şahin ranked 17th among 47 scientists from Turkey and 4020th in the world in the field of Engineering and Technology.

Prof. Dr. Kemal Sıtkı Türker from IGU Faculty of Dentistry achieved an important success by being 4th among 6 scientists from Turkey and 5870th in the world.

Asst. Prof. Dr. Festus Victor from the Faculty of Economics, Administrative and Social Sciences of IGU was the only scientist from Turkey to be ranked in the field of Economics and Finance, and he was ranked 1183 in the world.





SCIMAGO  
INSTITUTIONS  
RANKINGS

## ***SCImago 2024 results have been announced: IGU is in the top 5 in the field of research!***

The results of "SCImago University Rankings 2024", which ranks the scientific research, innovation and social impacts of world universities according to SCOPUS publication and citation data, have been announced. Standing out with its work in research areas, Istanbul Gelisim University ranked 5th among Turkish universities in the field of research and 25th in all fields. It attracted attention with the results it received in the categories of Economy, Environmental Science, Business Administration, Energy, Social Sciences and Engineering.

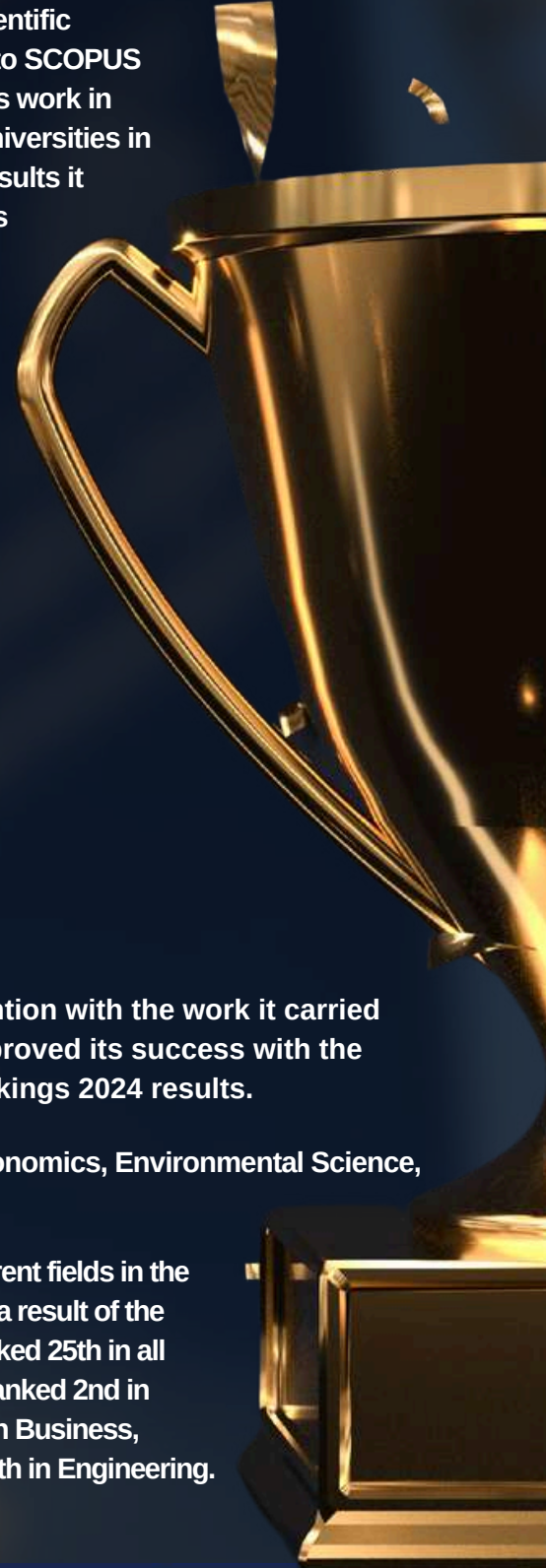
The results of "SCImago University Rankings 2024", which measures the social, scientific impact and innovation of universities around the world, have been announced. Aiming to give a general idea about universities by measuring their performance in terms of research, innovation and social impact, SCImago University Ranking helps students obtain information about a university's education quality, effectiveness and prestige.



Proceeding with the vision of "World University", IGU attracted attention with the work it carried out for its students and the opportunities it provided. It once again proved its success with the degrees it received in different fields in the SCImago University Rankings 2024 results.

Remarkable success among Turkish universities in the categories of Economics, Environmental Science, Business Administration, Energy, Social Sciences and Engineering!

Istanbul Gelisim University draws attention with its research studies in different fields in the 2024 results of SCImago, one of the university evaluation organizations. As a result of the evaluation made on SCOPUS research data, Istanbul Gelisim University ranked 25th in all fields and 5th in the field of research among Turkish universities. IGU also ranked 2nd in Economics, Econometrics and Finance, 4th in Environmental Science, 7th in Business, Management and Accounting, 8th in Energy, 13th in Social Sciences and 14th in Engineering.





## IGU achieved great success by being in the 1001-1200 rankings in THE World Universities Ranking 2025



Istanbul Gelisim University has achieved great success by ranking in the top 500 in the field of Research Quality in the list of THE World Universities Ranking 2025, which includes many well-established institutions such as Oxford University, Massachusetts Institute of Technology (MIT) and Harvard University.

Times Higher Education (THE), the London-based international higher education rating agency, announced the World University Rankings for 2025. The ranking was evaluated with the criteria of Education, Research Environment, Research Quality, Industry and International Outlook between 2019-2023. In this process, those who met various criteria from approximately 40,000 universities worldwide were included in the ranking. While there are more than 2,000 institutions in this ranking, Türkiye has achieved a historical success by being represented by 91 universities. In addition, 12 Turkish universities were included in the top 1000.

IGU, which achieved a significant success in the World Universities Ranking 2025, was ranked in the 1001-1200 in the world in general rankings, being 13th among Turkish universities and 8th among foundation universities.

IGU, which ranks 473rd in the world with Research Quality field, was listed as the 3rd among Turkish universities and as the 2nd among foundation universities. In the field of International Outlook, it ranked 596th in the world, and 5th in Türkiye. The success of IGU in the rankings shows the university's commitment to high-quality education and research and its compliance with international standards. IGU, which advances to the vision of the world university, takes firm steps towards becoming a globally recognized university by supporting its research activities while providing an innovative and contemporary education to its students.



***"This achievement is not only a ranking; it is also a reflection of our understanding of academic excellence and innovative education"***

Istanbul Gelisim University Rector Prof. Bahri Şahin: "As Istanbul Gelisim University, we are proud to be among the top 500 universities in the field of Research Quality in the Times Higher Education (THE) World Universities Ranking 2025. The fact that we are ranked 8th among the foundation universities in Turkey by being in the 1001-1200 in the general rankings in the international arena is a result of the intense efforts and dedication we carry out together. This achievement is not only a ranking; it is also a reflection of our understanding of academic excellence and innovative education. Our vision is to provide our students with the highest quality education, making them individuals who can compete on a global level. We aim to be a pioneer in knowledge production with our studies in the field of research and innovation. I would like to thank all our academicians and stakeholders of our university who contributed to achieving this success. We will continue to work to achieve many more achievements that will strengthen the presence of IGU in the international arena by continuing to move forward with determination to achieve larger goals in the future."

Commenting on Türkiye's success in the Times Higher Education (THE) 2025 World University Rankings, THE Global President Phil Baty stated, "The increase in the number of Turkish universities in the top rankings is an indication that Türkiye has made rapid progress in terms of research and education quality. It is really great to observe this and we think it will go higher in the rankings of universities."



# IGU has risen 23 places in the overall ranking!

According to the results announced by Round University Ranking (RUR), one of the institutions ranking universities in the world, Istanbul Gelisim University rose 23 places in the world with 1099th. IGU, on the other hand, ranked 48th among universities in Türkiye and 18th among foundation universities.



Continuing to progress with the vision of "World University", Istanbul Gelisim University (IGU) has achieved a significant success in the international arena and increased its place in the RUR 2024 World Universities Ranking by 23 steps compared to last year. According to the list published by the RUR Rankings Agency for 15 years, IGU ranked 48th in Türkiye and 18th among foundation universities in Türkiye this year.

Round University Ranking (RUR), one of the prestigious organizations ranking world universities, announced the results of 2024. RUR, which evaluates the leading universities around the world according to a total of 20 indicators under the headings of teaching, research, international diversity and financial sustainability, bases its ranking on certain criteria. When determining the scores of universities, teaching and research dimensions are reflected in the total score as 40 percent, and international diversity and financial sustainability indicators are reflected in the total score as 10 percent.

According to the ranking explained in the indicators of Teaching, Research, International Diversity and Financial Sustainability, IGU ranked 1113th in the world in the 'Teaching' indicator and 15th among foundation universities in Türkiye. While maintaining its place in the 'Research' indicator last year, it ranked 1017th in the world ranking and 16th among foundation universities by increasing its score. IGU, which achieved global success with its internationalization strategies, continued its success in the 'International Diversity' indicator and ranked 730th in the world and 16th among the foundation universities in Türkiye, while it ranked 1106th in the world and 16th in the foundation universities in the 'Financial Sustainability' indicator.

# YÖK evaluated universities: IGU ranked 1st in 3 categories

The "University Monitoring and Evaluation General Report-2024" prepared by the Council of Higher Education (YÖK) was published. Istanbul Gelisim University (IGU), which stood out in 6 fields last year, stood out in 10 fields this year with its studies. While IGU was at the top with its studies in the field of water saving investment and energy efficiency investment per the amount of water consumed in the "Sustainability" category, which is one of the evaluations made by the Council of Higher Education, it maintained its 1st place as the university with the most accredited undergraduate programs.



The "University Monitoring and Evaluation General Report-2024", in which the Council of Higher Education evaluated 201 universities in Turkey according to 64 different indicators, was published. Istanbul Gelisim University (IGU) ranked 1st in the university category, where the use of energy efficiency investment and water saving investment per the amount of water consumed was the highest. IGU, which took firm steps towards internationalization, maintained its 1st place as the university with the most accredited undergraduate programs among both state and foundation universities.



### IGU entered the rankings in 10 different indicators in 4 different categories

Istanbul Gelisim University, which proceeds with the vision of "Research University ", ranked 6th in the category of "applied patent, useful model or design" in the field of " Research-Development, Project and Publication" according to 2024 data, and 13th in the category of "Field-weighted citation impact". In the "University Monitoring and Evaluation General Report-2024"; IGU, which is the 1st university with the most accredited undergraduate programs in the field of "Education and Training", ranked 3rd in the "Number of E-Resources" category.

Advancing with the vision of the world university, IGU ranked 5th in the category of "Number of international doctoral academicians employed" in the field of "Internationalization", 9th in the category of "Number of international students" and 11th in the category of "Number of students participating in exchange programs".

### Success in 3 different indicators in the sustainability field!

Istanbul Gelisim University, which attaches importance to sustainability studies in all areas, especially environmental sustainability by adopting the "Sustainable Development Goals", once again emphasized the importance it attaches to the practices for the effective use of natural resources as the 8th in the category of "Direct carbon footprint per capita" as well as its first place in the categories of "energy efficiency investment use" and "water saving investment per amount of water consumed" in the field of "Sustainability" in the 2024 report.



### ***“We act with a strong spirit of cooperation to shape the future”***

*Istanbul Gelisim University Rector Prof. Bahri Şahin underlined the success of IGU in 10 fields in the University Monitoring and Evaluation General Report-2024, which maintains its 1st place as the university with the most accredited undergraduate program among both state and foundation universities. Prof. Şahin also added: We are proud of the studies we have carried out on many issues such as rapidly developing technology, climate and environmental problems, global conflicts, changes in social needs, employment and economic crises, which YÖK President Prof. Erol Özvar said these are the issues that higher education will seek solutions in the coming period. As a university, we adopt the United Nations Sustainable Development Goals with the aim of leaving a more livable world for future generations. Sustainability is critical not only for the world, but also for humanity, and achieving this goal is a shared responsibility of all of us. In this regard, we aim to develop innovative solutions and increase social benefit by giving special importance to our education and research activities. We act in a strong spirit of cooperation to shape the future.”*

## Istanbul Gelisim University received YÖKAK Corporate Accreditation for 5 years!

Istanbul Gelisim University (IGU) was fully accredited for 5 years as a result of the institutional accreditation evaluation carried out by the Higher Education Quality Board (YÖKAK). After the detailed audit process in December, IGU was entitled to receive accreditation at the highest level with the high standards it has shown in the fields of education, research and development, management system and community service.



**İstanbul Gelişim Üniversitesi,  
YÖKAK tarafından  
5 yıl süreyle tam akredite edildi!**

Üniversitemiz, eğitim-öğretim, araştırma, yönetim ve topluma hizmet alanlarındaki kalite standartlarını sağlayarak, Yükseköğretim Kalite Kurulu (YÖKAK) tarafından **5 yıl süreyle "Kurumsal Akreditasyon Belgesi" almaya hak kazandı.**



Institutional accreditation is an important process that evaluates whether universities meet the quality standards set in the fields of education, research, management and community service. This rigorous evaluation process carried out by YÖKAK aims to increase the competitiveness of higher education institutions on a national and international scale and to ensure that they establish a transparent and sustainable quality assurance system. Universities that are entitled to receive institutional accreditation prove that they successfully manage quality processes, adopt sustainable development in education and effectively fulfill their mission of adding value to society. Istanbul Gelisim University successfully completed this important process and made its name among the few universities in Türkiye that received full accreditation.

Click [here](#) to access the source of the news.



## Improvement Meeting for Accreditation Processes Held at IGU

Istanbul Gelisim University hosted an important meeting on June 12, 2025 in order to improve the continuity of international accreditation processes and the understanding of quality-oriented education. The meeting was attended by representatives of departments accredited by international accreditation bodies such as AQAS (Germany), ABET (United States) and AHPGS (Germany). Meeting was carried out under the chairmanship of Vice Rector for Quality, Accreditation and Internationalization Prof. Arda Öztürkcan.



The main agenda item of the meeting was to evaluate the improvements that needed to be made in order to increase the effectiveness and ensure the continuity of the existing accreditation processes. This meeting, which was held in line with the quality-based growth goals of the university, was also important in terms of strengthening coordination between all relevant academic units.

Click [here](#) to access the rest of the news.

## Our IGU Academics are on the World's Best Scientists List!

Istanbul Gelisim University Rector Prof. Bahri Şahin was included in the Best Engineering and Technology Scientists category of the "World's Best Scientists" list prepared by Research.com, which carries great prestige in the scientific world.

In the category of Best Economics and Finance Scientists, which is published on Research.com, one of the most important online academic portals in the world for scientists and includes only Bilkent University and Middle East Technical University, Assoc. Prof. Festus Victor Bekun, a faculty member at Istanbul Gelişim University, Department of Logistics Management, came in first.

Prof. Kemal S. Türker, who moved his research laboratory to Istanbul Gelisim University Faculty of Dentistry in 2021, was included in the Best Neuroscience Scientists category. The lists, compiled by Research.com, benchmark the academic impact of scientists around the world. Prof. Türker's inclusion in this prestigious ranking is important not only as an individual achievement, but also as a world-class representation of academic production in Turkey.

Click [here](#) to access the source of the news.

## Istanbul Gelisim University Successfully Represented Türkiye at the NAFSA 2025 Higher Education Fair

Istanbul Gelisim University (IGU) participated for the first time in the NAFSA 2025 Higher Education Fair held in San Diego, United States, between May 27–30, 2025. The university was among the 53 higher education institutions representing Turkey in the “Study in Turkey” pavilion at the fair, which is considered one of the most prestigious international meetings in the field of higher education.

Click [here](#) to access the source of the news.





Istanbul Gelisim Vocational School started education in 2008 with 9 programs and became a school that forms the core of Istanbul Gelisim University. It has shown rapid development since its establishment; it has reached 19 departments, 37 programs and 10,630 students. Evening education is provided in 21 of 37 programs.

Istanbul Gelisim Vocational School continues its educational activities with its experienced and strong academic staff. In addition to the permanent instructors, by employing the leading names of the sector part-time, the students are given the opportunity to learn their practical experience in business life.

Istanbul Gelisim Vocational School, which has moved to its new campus as of the Fall Term of the 2017-2018 Academic Year, has a total of 22 workshops, including Aircraft Maintenance Workshops, Mock-Up, Kitchen, Electric, Construction, Automotive, Serigraphy, Ceramics and Fashion workshops, in its new campus so that students can apply their theoretical education practically. Besides it offers a field of application with 7 Computer Labs, one of which is MAC.

Our School's Aircraft Technology Program has the Recognized School Approval Certificate from the General Directorate of Civil Aviation (SHGM) as well as the Flight Operations Specialist Training (Dispatcher) Authorization Certificate from the DGCA. Apart from our two programs authorized by DGCA, the licensing processes for the Approved Cabin Crew Basic Training Organization Certificate for Civil Aviation Cabin Services Turkish and English Programs and the Approved Ground Handling Training Organization Certificate for Civil Air Transport Management Turkish and English Programs are continuing at the DGCA.

Istanbul Gelisim Vocational School students can benefit from the educational and social activity opportunities available in all campuses of our university without interruption.

# OUR MISSION

To equip our students in all the programs with innovations in their fields, to keep them informed of current developments, to keep this process alive with scientific activities, and to support the scientific studies of lecturers. To be the solution for the need of qualified intermediate staff with the qualifications required by the sector, to have assimilated the latest technological developments, to have developed a practical side.



# OUR VISION

Our vision is to be one of the world's leading vocational schools with qualified academic staff and all the programs recognized by international institutions and organizations, and to train students who are demanded by the market and who are all employed after graduation.



*\* IGVS E-Bulletin has been prepared according to the Turkish Higher Education Quality Council (THEQC) criteria.*

# EDUCATION



## NEWS FROM IGVS

### IGVS Student Colloquium III Has Been Held!

The 3rd Student Colloquium organized by Istanbul Gelisim Vocational School successfully presented a project titled "Smart Warning Against Earthquakes: Earthquake Detection and Immediate Communication Using Artificial Intelligence." Project leader Muhammet Esat Altuncu, along with project partners Berke Mustafa Çoban and Berkay Küçük, and advisor Lecturer Hasan Hüseyin Taşer, introduced the artificial intelligence-based early warning system they developed to the participants. The event was also attended by Education Coordinator Nevzat Yağız Tombal, who listened to the students and provided feedback.

The colloquium was held on Monday, May 26, 2025, at 12:00 PM in Room 108 of the IGVS building, attracting significant interest.

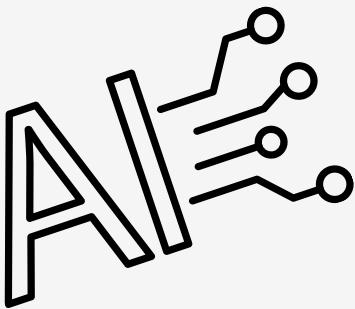
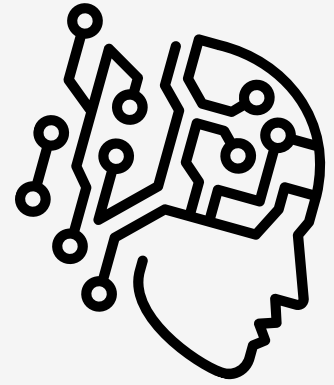


# Artificial Intelligence and Automation Colloquium Held at IGVS!

The academic colloquium titled “Artificial Intelligence-Based Systems, Automation Applications, and Interdisciplinary Project Experiences,” organized by Istanbul Gelişim Vocational School, was held on May 27, 2025, in meeting room IGVS 108.

The event was supported by Education Coordinator Lecturer Nevzat Yağız Tombal and Quality Coordinator Lecturer Bilge Yılmaz, who also participated in the event. During the colloquium, Assoc. Prof. Ercan Aykut, Lecturer Kübra Erdoğan, Lecturer Muhammet Cihat Mumcu, Lecturer İzzet Yavuz, and Lecturer Sena Nur Benli shared their current projects and emphasized the importance of interdisciplinary collaboration.

We would like to thank all our participants and contributing academics!





## Visit from Romania: Assoc. Prof. Paul Paşcu visited IGVS

As Istanbul Development Vocational School, Civil Aviation Transportation Management (English) and other Transportation Services programs, on May 26, 2025, within the scope of the Erasmus+ KA131 Project Staff Training Mobility, we had the pleasure of hosting Assoc. Prof. Paul Paşcu from our partner university in Romania, Ştefan cel Mare University of Suceava, as part of the Erasmus+ KA131 Project Staff Mobility for Training.

During his visit, Assoc. Prof. Paşcu conducted inspections across the college and in the relevant programs. In the first part of the visit, Assoc. Prof. Paşcu met with the college administration and was then introduced to the academics of the Civil Aviation Transportation Management (English) and other Transportation Services programs, engaging in mutual academic knowledge exchange. During these discussions, potential joint projects, academic publications, and student mobility opportunities were discussed.



In addition, Assoc. Prof. Paşcu, who attended the “Entrepreneurship” course taught by our program lecturer Fehim İlhan as a guest, had a brief interaction with the students in a question-and-answer format related to his academic field of expertise after a short introduction. This warm meeting was also a valuable experience for our students in terms of gaining an international perspective.

During the rest of the visit, Assoc. Prof. Paşcu took a short tour of Istanbul Gelisim Vocational School, where he was introduced to our academic and physical infrastructure. This visit, which contributed to the development of academic cooperation, was quite productive in terms of strengthening interaction between universities.

We would like to thank Assoc. Prof. Paşcu for his kind visit and look forward to further deepening our collaboration in the future.

# Information Security students conducted penetration tests on websites created by Web Design and Coding Program students

In the Advanced Internet Programming course taught by IGVS Web Design and Coding Program Lecturer Çisem YAŞAR, Information Security students conducted penetration tests on the web page projects created by students during the semester.

Web Design and Coding students transformed their own unique project ideas into web applications using current technologies such as PHP, PhpmyAdmin, Bootstrap, AJAX, RegEx, and PHPMailer throughout the semester. Each student group actively developed their projects by creating many components themselves, including user interfaces, form processing, database connections, security controls, and communication infrastructure. The goal of the projects was not only technical implementation but also to transform their own ideas into digital products.



At the end of the term, the projects were opened to students in the Information Security Program and included in a penetration testing process that reflected real-world scenarios. Information Security students conducted tests on the developed sites under the following headings:

- SQL Injection
- Cross-site Scripting (XSS)
- Cross-Site Request Forgery (CSRF)
- Password attacks (brute-force/dictionary)
- OSINT and information gathering tools

Each vulnerability was communicated to the student developer groups. The developers then made their projects more robust by closing the security gaps. Through this activity, students gained experience not only in technical skills but also in industry workflows, inter-team communication, and a culture of secure software development. The event demonstrated that vocational education becomes more effective and meaningful not only through course content but also through real-world interdisciplinary interaction. As a result;

- Web development students gained an awareness of “secure coding” by directly experiencing security vulnerabilities in their own projects.
- Security students gained experience testing on real, live systems.
- Both sides learned firsthand how software developers and security experts work together.
- Students also developed industry-specific communication skills such as analysis and constructive feedback.

Going one step further in education, we prepare our students not only for coding but also for real-world work processes.



Asst. Prof. Kaan KOÇALI, an academic from the Occupational Health and Safety Program at IGVS, visited the International Slavic University (Megunaroden Slavjanski Univerzitet) in Skopje, North Macedonia, as part of Erasmus+ Teaching Mobility between May 12–16, 2025. During this mobility process, occupational health and safety education models and digital learning systems in Europe were observed on-site, and there was an exchange of information regarding legislative practices, risk management, and continuous education strategies. This opportunity also allowed for the analysis of practices that could contribute to OHS education in Türkiye. We believe that this visit, with its international collaborations and field experiences, is of great value in developing a culture of occupational health and safety.



Lecturer Ali ÇETİNKAYA from IGVS has been invited to conduct a generative artificial intelligence workshop training at the Digital Art Festival Istanbul 2025 (IDAF'25), organized with the contributions of the Republic of Türkiye Ministry of Culture and Tourism. Lecturer Ali ÇETİNKAYA, who will take part in IDAF'25 with the title "From Algorithm to Inspiration: The Artistic Codes of Generative Artificial Intelligence," will develop interactive applications through software using generative artificial intelligence models with Python programming language codes on the Google Colab platform, following the process from Idea → to Algorithm → from Algorithm → to Software → from Software → to Application. Lecturer Ali ÇETİNKAYA will conduct the related workshop on June 13 and 15, 2025, at 11:00 & 16:00 at Atatürk Cultural Center (AKM), Beyoğlu / Istanbul, during IDAF'25.



# A Symbolic Step Toward the Safety of the Future!

As the Occupational Health and Safety Program at IGVS, we celebrated the World Occupational Health and Safety Day with a meaningful event alongside future OHS professionals. With the “Helmet Wearing Ceremony,” our students experienced the excitement of symbolically assuming their professional responsibilities for the first time. Each helmet was not just a protective gear but a determined step toward a conscious, responsible, and safety-oriented working life.

At the event, Asst. Prof. Kaan KOÇALI, Head of the Occupational Health and Safety Program, emphasized that occupational safety is not only a necessity but also a culture of life. Lecturer Türker YAPAN, one of our program’s academic staff, emphasized that we are a family as a program and that our students have acquired an indispensable profession serving all sectors.

Our students proudly wore their first symbols on this journey to become architects of a safe working life. One of the most special moments of the ceremony was the awarding of plaques of achievement to the top three students who are in the graduation phase of the program. This special presentation both honored our students and served as a motivational example.

This ceremony, attended by our academic staff, sector representatives, and students, reinforced the sense of awareness, unity, and responsibility. As the Occupational Health and Safety Program of Istanbul Gelisim Vocational School, we will continue our efforts with determination to spread a culture of healthy and safe work.

“A Safe Future Begins with Responsible Generations!”





# IGVS June Appointments



- Asst. Prof. Kübra SAĞLAM has been appointed as an “Assistant Professor” in the Food Technology Program at Istanbul Gelisim Vocational School.
- Asst. Prof. Eda ŞENSU DEMİR has been appointed as an “Assistant Professor” in the Food Technology Program at Istanbul Gelisim Vocational School.
- Asst. Prof. İsmail Hakkı BEKTAŞ has been appointed as an “Assistant Professor” in the Mechanical Engineering Program at Istanbul Gelisim Vocational School.
- Asst. Prof. Murat BAŞAL has been appointed as the “Program Head” to the Logistics Management Program of our University’s Gelisim Vocational School.
- Asst. Prof. Hülya ATEŞOĞLU has been appointed as the “Head of Department ” of the Management and Organization Department of the Gelisim Vocational School of our University .
- Asst. Prof. Simge YILMAZ has been appointed as the “Department Head” to the Audiovisual Techniques and Media Production Department of our University’s Gelisim Vocational School.
- Lect. Ali GÜRCAN has been appointed as “Department Head” to our Gelisim Vocational School, Machinery and Metal Technologies Department.
- Lect. Hasan İlker ÇELİKER has been appointed as the “Department Head” to the Department of Motor Vehicles and Transportation Technologies of our University’s Gelisim Vocational School.
- Lect. Tuğçe ÖZDİNÇ has been appointed as the “Program Head” to the Applied English Translation Program at our Gelisim Vocational School.

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## R & D



Asst. Prof. Kaan KOÇALI and Lecturer Türker YAPAN, academic from the Occupational Health and Safety Program at IGVS, presented their paper titled “Transformation Analysis of Occupational Health and Safety Policies in Türkiye within the Framework of the European Union Harmonization Process” at the International Congress on Health Sciences, Occupational Health and Safety, hosted by Iğdır University on April 15–16, 2025.



The extended abstract titled “Composition and Technofunctional Properties of Aquafaba from Local Legume,” prepared by Nurullah Zekeriya Akar, lecturer at the IGVS Food Technology Program, was presented orally at the 4th International Graduate Research Symposium (IGRS'25) conference organized by the Istanbul Technical University (ITU) Graduate School of Education.





The extended abstract titled “Composition and Technofunctional Properties of Aquafaba from Local Legume,” prepared by Nurullah Zekeriya Akar, lecturer at the IGVS Food Technology Program, was presented orally at the 4th International Graduate Research Symposium (IGRS'25) conference organized by the Istanbul Technical University (ITU) Graduate School of Education.

## Istanbul Gelisim Vocational School Students Achieve Success in the Semi-Finals at TEKNOFEST 2025

Three different student teams advised by Let. Izzet Yavuz, the Head of the Electrical Engineering Program at Istanbul Gelisim Vocational School, achieved significant success by advancing to the semifinals of TEKNOFEST 2025, Turkey's largest technology competition.



The student teams AgroGuard, Dynamos, and Tech-Sat, which participated in competitions at the university level and above, successfully completed the preliminary evaluation phase with their innovative projects and were awarded high scores by the jury, earning them a spot in the semifinals.

### Team Achievements and Points:

- **AgroGuard Team – Agricultural Technology Competition**
  - Point: 94,67
  - Team Captain: İrem Türkyılmaz
  - Member: Diyaddin Temel
- **Dynamos Team – Technology Competition for the Benefit of Humanity (Health Technologies Category)**
  - Points: 90,00
  - Team Captain: Özlem Aşçı
  - Members: Harun Sefa Haydari, Cahit Taran, Muhammet Emin Şahin
- **Tech-Sat Team – Model Satellite Competition (Multi-Spectral Mechanical Filtering Module Category)**
  - Points: 81,21
  - Team Captain: Harun Can
  - Members: Mustafa Koca, Mehmet Türksöy, Burak Boz, Emirhan Erden

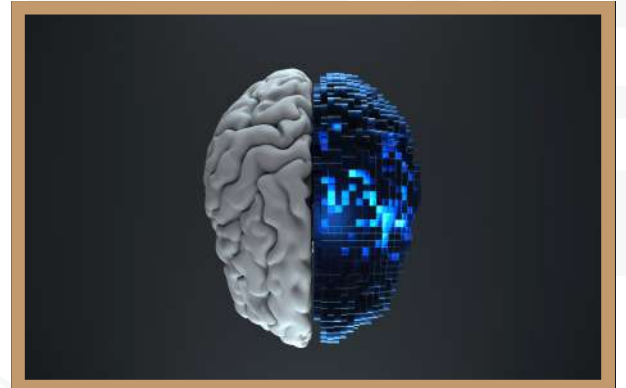
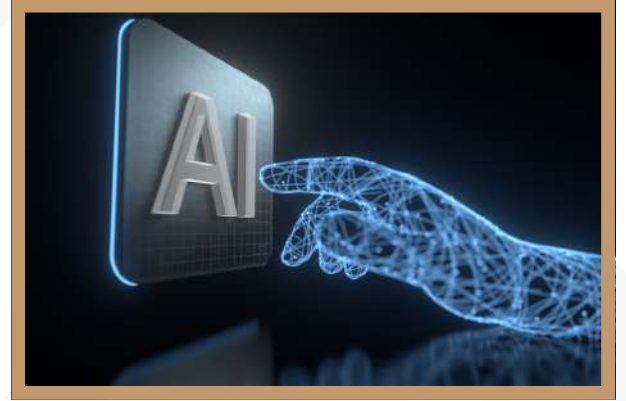
## Technical and Social Impact of Projects

The AgroGuard Project uses artificial intelligence-supported image processing technology to reduce pesticide use and support sustainable agriculture by spraying pesticides only on areas where weeds are detected in agricultural fields. The system attracts attention with its environmentally conscious approach, cost-effectiveness, and applicability to large agricultural areas.

The Dynamos Project uses a pressure-based sensor system developed to prevent postural disorders in individuals who work at a desk for long periods of time, alerting the user with vibrations and analyzing the data on a web-based platform to raise ergonomic awareness. The system offers an innovative solution in the field of digital health and personal awareness.

The Tech-Sat Project was developed within the scope of the TEKNOFEST Model Satellite Competition. Students successfully established a LoRa-based long-range two-way communication system between the payload and the ground station using an STM32 microcontroller, environmental sensors, and a Yagi antenna, enabling real-time data transmission. The system stands out as a demonstration of applied engineering skills.

Istanbul Gelisim Vocational School continues to support its students not only in the academic field but also in technological competitive environments with innovative projects. We congratulate the students and their advisor, Lect. İzzet Yavuz, and wish them continued success in the final process.







Asst. Prof. Kaan KOÇALI, an academic from the Occupational Health and Safety Program at IGVS, presented his paper titled "Thematic Evolution of Occupational Health and Safety Management Research in Small and Medium-Sized Enterprises" at the International Congress on Health Sciences, Occupational Health and Safety, hosted by Iğdır University on April 15–16, 2025.

Asst. Prof. Kaan KOÇALI, an academic from the Occupational Health and Safety Program at IGVS, contributed to the book titled Employee Health and Occupational Safety, published by Yönetim Publishing House, a national publisher, and edited by Assoc. Prof. Dr. Akif ABDULLAH and Dr. Dilşad AKAL YILMAZ, with a chapter titled "Occupational Health Services in Workplaces."



The abstract titled "Antidiabetic Potential of Industrial Fruit Pomaces:  $\alpha$ -Amylase Inhibition", prepared within the scope of a TÜBİTAK 2209-A supported project conducted by Lecturer Nurullah Zekeriya Akar from the Food Technology Program at IGVS, was presented orally at the 6th International Eurasian Conference on Science, Engineering and Technology (EurasianSciEnTech 2025).

IGVS Civil Aviation English Program lecturer Gözde Sula Averbek delivered an oral presentation titled “The Power of Digital Campaigns in Public Health - An Analysis of the Ministry of Health's Social Media Activities” at the 10th International Multidisciplinary Scientific Studies and Global Applications Congress held in Girne on May 23, 2025. This study examined the impact of health-themed digital campaigns published by the Ministry of Health of the Republic of Turkey on X and Instagram platforms during the 2024–2025 period. By analyzing social media interactions and Google Trends search data together, the study revealed the contribution of digital marketing strategies to the processes of information seeking and awareness raising.



Asst. Prof. Kaan KOÇALI and Lecturer Efe ERİN, academics from the Occupational Health and Safety Program at IGVS, along with Lecturer Emine ÖZTÜRK KOÇALI from the Logistics Program, presented their paper titled “Analysis of Work Accidents in Shipyards and Preventive Strategies: An Evaluation with AHP Method” at the 10th International Scientific Research and Innovation Congress held in Dubai, United Arab Emirates, on April 16–20, 2025.





# SOCIAL CONTRIBUTION



*\* IGVS E-Bulletin has been prepared according to the Turkish Higher Education Quality Council (THEQC) criteria.*

## This Year in Our IGVS Aircraft Technology Program..

**Lect. Hasan İlker ÇELİKER**  
Aircraft Technology Program

As the IGVS Aircraft Technology Program, we are experiencing the sadness of leaving another academic year behind, as well as the pride and excitement of graduating our students. During the 2024-2025 Spring semester, we had the opportunity to carry out many activities as a program. In particular, we organized a technical visit to the Kocaeli Naval Air Command to provide our graduating students with an opportunity to gain insight into both civil and military aviation, learn about the duties and responsibilities of the personnel working there directly from them, and observe the environment for those considering a career in military aviation.

During the visit to the Kocaeli Naval Air Command, our students gained valuable insights into the operations of the aircraft within the unit, the maintenance and repair activities conducted, the workload of the personnel, and, particularly for those considering a career in military aviation, the opportunity to observe the working environment in such a setting. The aircraft maintenance and repair sector is of great importance both for civil aviation and military aviation. It is particularly important for everyone involved, from the flight crew to the ground crew, and from pilots to technicians, to understand all the mechanisms used in aircraft. In this context, we strive to prepare our students for the sector in the best possible way and reinforce the knowledge they have gained at school through such visits.



In terms of civil aviation, in addition to the DGCA-defined A1 license training provided at school, we organize various panels and visits so that our students can get to know the companies in the sector closely, both to prepare them for the sector in the future and to allow the companies to get to know our program and students closely. In one of the panels we organized, two technicians working at THY with B1 licenses provided our students with information about the industry and working conditions in our school's conference hall, answered their questions, and created a stepping stone for them to move forward with more confidence in the industry.





As part of our technical tour based on our meeting with myTechnic, another company that continues to grow steadily in the sector, we provided our students with the opportunity to see the hangar environment where they will work in the future and obtain the necessary information from the relevant department personnel, from human resources to technicians. In particular, during the briefing given to our students by Mr. Ümit KUŞ, the Education Director, discussions were held on the challenges that technician candidates entering the aviation sector will face, as well as the sector's expectations of them. Special emphasis was placed on the importance of foreign languages, which are essential in aviation. The importance of the modules was once again highlighted, along with the advantages of our school's recognized status by the DGCA.



As the Aircraft Technology Program, we continue to prepare our students for the aviation industry through both theoretical and practical training, as well as industry-university collaborations. Since the industry requires serious discipline under all circumstances, we strive to prepare our students for the industry in a more equipped manner.

We wish all aviation enthusiasts and aspiring technicians success in their professional lives.



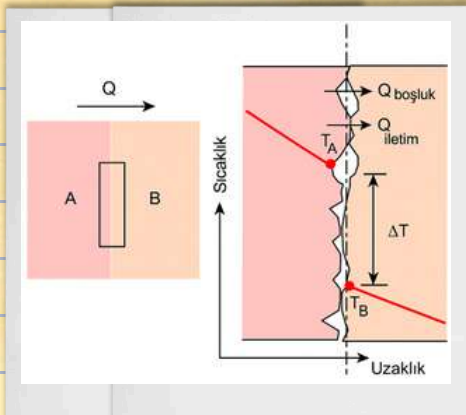
# Thermal Contact Resistance: Definition, Factors, and Application Areas

**Lect. Ali GÜRCAN**

Head of the Department of Machinery and Metal Technologies / Head of the Program of Machinery

## Introduction

Heat transfer in machines and devices is closely related to the quality of contact between two parts. When two solid surfaces come into contact, heat always tries to flow from the hot surface to the cold one. However, since no surface is perfectly smooth in real life, a barrier called thermal contact resistance forms at the contact point. This resistance is an observable phenomenon at the interface, manifested as a temperature drop caused by microscopic roughness and air gaps on the contact surface. Thermal contact resistance is simply defined as the ratio of the temperature drop at the contact area between two surfaces to the heat flux passing through this area. For instance, under steady-state heat flow, this value can be calculated by dividing the temperature difference measured at the interface by the heat flux. The higher the thermal contact resistance, the more difficult it becomes for heat to transfer from one part to another; lower resistance indicates efficient heat transfer.



A diagram showing the temperature distribution at the contact of two solid materials. Since the surfaces are not perfectly flat, there are micro-level gaps (air pockets) between them. Therefore, a significant temperature drop ( $\Delta T$ ) occurs at the interface, which is an indicator of thermal contact resistance.

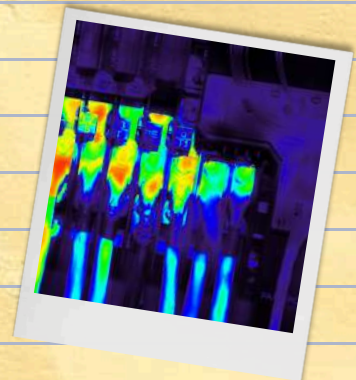
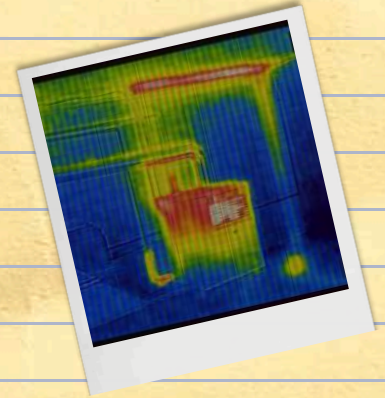
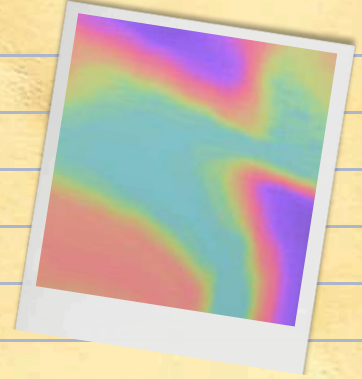
## Definition and Measurement of Thermal Contact Resistance

Thermal contact resistance is defined as the ratio of the temperature difference at the interface to the heat flux passing through the same point ( $R = \Delta T/Q$ ), and it is generally determined experimentally due to the influence of variables such as surface roughness, hardness, and pressure. Accordingly, steady-state temperature drop is monitored by compressing two materials under controlled pressure and applying constant heat flux using a cut-bar or ASTM D5470-like stationary test setup, or transient methods such as laser flash are used to observe the time-dependent temperature response after a sudden heat input to the interface. Modern TIM test devices collect data at different thicknesses and pressures, measuring this small value (typically on the order of  $10^{-6}$  m<sup>2</sup>K/W) with high precision, making it a reliable parameter that should not be neglected in design.



There are several factors that determine the magnitude of thermal contact resistance. The main factors can be summarized as follows:

- **Surface roughness:** The micro-level smoothness or roughness of the contacting surfaces is a significant factor. When rough surfaces touch, only certain points make contact, and air gaps remain between them. Smoother surfaces provide a larger real contact area, thus reducing thermal resistance at the interface. Therefore, to improve heat transfer, contact surfaces are polished or leveled as much as possible.
- **Contact pressure:** The force with which the contacting parts are pressed against each other (i.e., contact pressure) directly affects the heat transfer at the interface. High pressure flattens the surface asperities, increasing the contact area and minimizing the air gaps. As a result, contact resistance decreases and heat flow becomes easier. On the other hand, under low pressure, the surfaces make loose contact, and resistance increases due to limited contact points.
- **Material type:** The thermal and mechanical properties of the contacting materials are also critical. The contact between metals with high thermal conductivity (e.g., copper or aluminum) exhibits lower thermal resistance compared to materials like ceramics with low conductivity, as they have a higher capacity to conduct heat. The hardness/softness of the materials also matters. Soft metals can easily deform under pressure and fill surface roughness, thereby ensuring excellent contact under high pressure and resulting in very low thermal contact resistance.
- **Contact surface geometry:** The shape and size of the contact surfaces also affect heat transfer. If two surfaces contact over a large, flat area, heat conduction becomes more efficient. In contrast, if contact occurs at a point or a narrow line (e.g., a curved surface touching a flat one), the actual contact area decreases and thermal resistance increases. Perfect alignment of surfaces (e.g., two flat surfaces making proper contact) reduces resistance at the interface, whereas geometric mismatches or curvatures restrict contact and hinder heat flow.



(Note: The cleanliness of the contact surface and possible interface materials can also have an effect. For example, oxide layers on metal surfaces reduce thermal conduction, while materials such as thermal paste used in electronic applications fill the air gaps, improving contact.)



## Application Areas Where Thermal Contact Resistance is Important

Thermal contact resistance is a quantity that must be considered in many practical applications. Its effects become particularly important in ensuring efficient heat transfer in the following areas:

- **Internal combustion engines:** In automobiles and similar engines, significant heat transfer occurs between components such as the engine block and cylinder head. For example, heat is transferred from the hot combustion chamber to the engine block via the cylinder head gasket. Thermal contact resistance at this interface can affect the cooling efficiency of the engine. Measurements show that increasing the torque of the bolts fixing the cylinder head (increasing pressure) significantly reduces the resistance between the gasket surfaces. Therefore, in engine design, using appropriate materials and applying sufficient tightening force at critical contact surfaces is essential to prevent overheating.
- **Heat exchangers (radiators):** Heat exchangers are devices designed to transfer heat from one fluid to another, and their efficiency depends on the heat transfer within their internal structures. Especially in automobile radiators or industrial finned-tube exchangers, the contact between metal fins and tubes is of critical importance. Weak contact between two parts creates resistance to heat transfer and reduces the performance of the exchanger. In practice, fins are usually tightly welded or soldered to the tubes to minimize thermal contact resistance. For example, in a soldered radiator, nearly perfect contact between the fin and the tube maximizes heat transfer.
- **Cooling of electronic devices:** High-performance electronic components (e.g., computer processors, power transistors) must dissipate heat by transferring it to a heat sink. The thermal resistance at the contact surface between the processor and the cooling block is one of the key factors determining the effectiveness of cooling. Therefore, in electronic cooling applications, thermal interface materials such as thermal paste are used to improve the quality of contact. Thermal paste fills microscopic gaps between the processor and the heatsink surface, improving heat transfer and minimizing contact resistance. Indeed, using a good thermal interface material allows most of the heat generated by the processor to transfer to the heatsink, enabling the device to operate without overheating.

## Conclusion

To sum up, thermal contact resistance is the resistance to heat flow that occurs at the junction point between two surfaces and is an important concept in both theoretical and practical heat transfer. Factors such as surface smoothness, contact pressure, material properties, and contact geometry determine the magnitude of this resistance. Understanding thermal contact resistance and minimizing its effects in engineering designs enables more efficient and reliable thermal management. Particularly in areas such as engines, heat exchangers, and electronic coolers, reducing thermal contact resistance plays a critical role in enhancing device performance, improving energy efficiency, and preventing overheating.



## CLUBS

### TALK!

#### FASHION DESIGN CLUB

It is a student club established within the body of Istanbul Gelisim University Health, Culture and Sports Department (CSD). Club consultancy is carried out by Lect.Sultan ÇETİNKAYA, Head of Fashion Design Program at Istanbul Gelisim University, Istanbul Gelisim Vocational School. The aim of our club is to enable students to participate in scientific, cultural, social, artistic and sports activities, to enable them to develop their personal potential to the extent of their knowledge, abilities and interests, as well as to support the personal development of students. In addition, it is to enable them to make use of their spare time, to raise awareness of society, to increase awareness in some areas and to contribute to their academic development.

Although our club was founded by Istanbul Gelisim Vocational School Fashion Design students, it is open to all university students. The activities of our club are as follows:

- Social events and volunteering services, Workshops in scientific and artistic fields,
- Technical trips such as art and fashion museums, galleries, exhibitions,
- Activities on cinema and theater costume designs.



## OUR STAKEHOLDERS



# TURKISH AIRLINES



EKOLOFOOD







SİVİL HAVACILIK  
GENEL MÜDÜRLÜĞÜ



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We would like to thank our academicians who contributed to the June issue of Istanbul Gelisim Vocational School E-Bulletin.



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