

# IGVS Monthly E-Bulletin

January

2025

Volume 5 / Issue 1

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## Dear Young People,

Istanbul Gelişim 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 January 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.





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



# 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 Sitki 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.



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# 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.

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# 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 successin 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.



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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."

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# 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.

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# 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.

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#### 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 Sahin 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. Sahin 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."

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## IV. Electronic Circuits Project Exhibition has been opened at IGU!

Organized with the intensive participation of Istanbul Gelisim University Electrical and Electronics Engineering, Mechatronics Engineering, Electronics Technology and Electrical Program students, IV. Electronic Circuits Project Exhibition brought together technology enthusiasts. The event, where students showcased their creativity and engineering skills, turned into an innovation feast where more than 60 projects were introduced.

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The opening speech of the exhibition, which included the projects of the students of Electrical and Electronics Engineering, Mechatronics Engineering, Electronic Technology and Electrical Program, was given by the Vice Rector responsible for R&D Prof. Necmettin Maraşlı and Instructor İzzet Yavuz, who played an important role in the preparation process of the exhibition. After the speeches, Vice Rector Prof. Necmettin Maraşlı presented a plaquet to Lect. İzzet Yavuz.

#### Ranked Projects Will Be Compete at Teknofest

Prof. Necmettin Maraşlı emphasized that the event offers a great opportunity for students: "Such organizations allow our young people to develop their innovative ideas. Our projects in previous exhibitions have achieved significant success in Teknofest and other national competitions. We believe that our new projects will achieve the same success."



Prof. Maraşlı announced that an award-winning project competition for Teknofest will be held within the university soon and that successful projects will be supported by patent processes.

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### Rivalry in the technology race

The projects, which were judged by a five-person jury, were awarded gold, silver and bronze medals. The honorable mention awards were given to the teams that stand out with their innovative ideas. The exhibition included many remarkable projects from robotic systems to image processing software, from unmanned aerial and water vehicles to environmentally friendly designs. The exhibition turned into a technology festival not only for students but also for visitors.



## **Award winners:**

Gold Medal:

Şahin Takımı: Abdul Hafız Al Shaar-

SİHA Projesi

Kali Takımı: Fatma Ceyhan ve Gülistan

Subaşı- Gö<mark>rüntü İ</mark>şle<mark>me Pro</mark>jeleri.

Aycibin 53 Takımı: Durs<mark>un</mark> Aycibin-

Araç Yorgunluk Sistemi.

Silver Medal:

Tech-Sat Takımı: Model Uydu Projesi

**Bronze Medal:** 

EYKFEL Takımı: Yusuf Enes Gültekin-

İnsansız Su Altı Aracı

**Honorable Mention Rewards:** 

DYNAMOS Takımı: Oturuş Bozukluğu

**Tespiti** 

MRV Takımı: Çöp Toplayan Gemi

Projesi

GESBOARD Takımı: Güneş Enerjili

Soğutma Sistemi

ALTARIA Takımı: Basic Tesla Rocket

Projesi

Ventech Takımı: Cam Temizleme

Sistemi

Doğa Severler Takımı: Orman Yangın

Söndürme Sistemi

3 VERE Takımı: Yerli 3D Yazıcı



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This year's exhibition has turned into a technology feast with students' creative projects. This event, where innovative ideas competed, revealed the potential of young engineers and enabled both participants and visitors to once again witness the power of engineering and innovation.





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# Cooperation protocol signed between Bakırköy Municipality and Istanbul Gelisim University

The cooperation protocol between Bakırköy Municipality and Istanbul Gelisim University, which covers academic, scientific and educational fields, was signed in the office of Bakırköy Mayor Assoc. Prof. Ayşegül Ovalıoğlu.

Istanbul Gelisim University Rector Prof. Bahri Şahin, Vice Rector Prof. Necmettin Maraşlı, Director of Vocational School of Health Services Prof. Mustafa Nizamlioğlu, Continuing Education Center (SEM) Director Dr. Tayfun Timuray, Lecturer Ebru Cengiz and Lecturer Aylin Koç participated to the ceremony.



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## Academic and Scientific cooperation will expand

Within the scope of the protocol, it is planned to organize various activities such as seminars, conferences and project collaborations as well as academic and scientific studies. It was also stated that the parties will carry out joint studies to improve their human resources. With this cooperation, it is aimed to increase the knowledge and experience sharing of both parties by determining the procedures and principles of consultancy services and project-based studies.



The protocol laid the foundations for a long-term cooperation process, with an emphasis on supporting education and project-based work in particular. This protocol is expected to contribute to both the academic world and local governments.

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# Calling after working hours: Does the Right to be Disconnected come to life?

With the acceleration of digitalization and the spread of remote working models, it has become a common expectation that employees will be accessible by employers after working hours. This leads to blurring of work and life boundaries, increasing the risk of stress and burnout. Asst. Prof. Nazlı Yüceol, addressed the effects of this problem on employees and carried out a comprehensive study on the "Right to Disconnect", which is of great importance in terms of determining the boundaries between work and private life.

Many countries have implemented the right to inaccessibility, which stands out as a critical right that ensures that individuals' rest periods and private lives are respected, with legal regulations. While in countries such as France, Italy, Canada, Australia, Portugal, Germany, Chile and Belgium, the right of employers to reach employees outside of working hours is limited, there is no legal regulation in Türkiye yet. However, Turkish academicians carried out a comprehensive study to measure the perception of this important right and to bring the issue to the agenda.

## Leading study from Turkish academicians: "Right to be Unreachable Perception Scale" developed

Prof. Esin Can, Dr. Ayşe Merve Urfa Yılmaz from Yıldız Technical University and Istanbul Gelisim University Vocational School of Health Services Head of Medical Services and Techniques Department Asst. Prof. Nazlı Yüceol developed the "Right to Disconnect Perception Scale" to measure employees' perceptions.

The details of the research were shared in an article titled "Blurring Boundaries in Work Life: A Scale Development Study on the Perception of Right to Disconnect" published in the Employee Responsibilities and Rights Journal, one of the most respected journals in the world. This scale, which consists of three dimensions and 18 statements, is an important guide for companies that want to develop more sustainable working policies in the business world.

### Employees are tired of the constant expectation of availability

According to the researches on the subject, the fact that employees are constantly accessible outside of working hours can trigger burnout syndrome while reducing work commitment. In companies that do not respect the boundaries of work and private life, there may be a possibility that the performance and motivation of employees will decrease.

However, recognition of this right can provide significant gains for both employees and employers. Employee loyalty and motivation of companies that respect the right of employees to rest may increase, as well as the chance to create a stronger employer brand. Companies that look after the balance of work and private life can also have the chance to attract and retain qualified workforce more easily.

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#### Employee well-being, and productivity are increasing

There are studies in the literature showing that the right to be disconnect positively affects employee productivity. While the energy of the employees who are forced to stay constantly connected is depleted, it is stated that the employees who are given the right to rest are more creative and productive in the long term.

According to experts, employers need to use this scale to review their current practices and create new policies. Employees, on the other hand, can use this scale as a scientific basis to defend their rights.

The legal recognition of the "Right to Disconnect" will make it possible to establish a healthier work-private life balance, while contributing to the creation of a happier and more productive workforce. While the steps to be taken in this regard in Türkiye can reduce the burnout problem of employees, it can increase productivity, motivation, reduce work-family conflict and directly affect the long-term success of companies.



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Istanbul Gelişim Vocational School started education in 2008 with 9 programs and became a school that forms the core of Istanbul Gelişim 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 Gelişim Vocational School students can benefit from the educational and social activity opportunities available in all campuses of our university without interruption.

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# 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.



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# NEWS FROM IGVS

# Conference on Finance Sector and Tax Issue Held

Department of Banking and Insurance and Asst. Prof. Esat Daşdemir organized a conference on accounting and finance sector and tax on November 5, 2024. Tax Inspector Musa Daşdemir, CPA Seçkin Baysal and Asst. Prof. and CPA Mustafa Kerem Börü attended the conference as a speaker and Asst. Prof. Esat Daşdemir undertook the moderation.



Starting from a basic issue such as how to follow a path to be successful in the sector, the subject of tax and tax, audit processes, responsibilities of taxpayers and the common and different aspects of the Turkish tax system with the UK were evaluated. In his opening speech, Mr. Daşdemir stated that the ratio of total tax revenues to GDP in 2023 is approximately 30% and emphasized the importance of tax and that every citizen, not only those who study and work in this field, should be aware of tax.

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# An In-Class Activity Was Held in the Radio and Television Programming Program

On Friday, January 3rd, an in-class activity titled "A Discussion on Sports Journalism" ["Spor Gazeteciliği Üzerine Bir Söyleşi"] was held as part of the Radio and Television Programming program at Istanbul Gelisim Vocational School. The event was organized within the scope of RTP281 - Sports and Media course, led by Lecturer Görkem Gülay DOĞAN ATICI, and featured Adem DAYANIR, an editor from TürkMedya, as the guest speaker. DAYANIR shared valuable insights into sports journalism and concluded the session by answering questions from students. At the end of the event, a plaque was presented to Adem DAYANIR.



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# The Web Design and Coding Program organized an event called "Let's Ask Someone Who Knows: What Awaits Security Experts in the Sector?" Event Was Held

Moderated by Lect. Cisem YASAR, Program Head of IGVS Web Design and Coding Program, the event titled "Let's Ask Someone Who Knows: What awaits Security Experts in the Sector?" was held with the participation of our Information Security Technology graduate student Ediz ERTİM, IT Security Assistant Specialist. The aim of this event was to talk to the participants about the challenges and opportunities encountered when stepping into business life. The preparations to be made before graduation, job application processes and points to be considered in job entry were discussed.



Through the participant's experiences in business life, how to balance discipline, passion and motivation on the road to success was discussed and the psychological impact of business life on private life and the importance of work-life balance were emphasized. It is aimed to provide students with practical advice and strategies to follow a healthier path in their careers. At the end of the event, the questions of the students were answered and the event was completed. We would like to thank our students and lecturers for their contributions to the event.

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# **IGVS and VSHS Academics Come Together for Stray Animals**

Istanbul Gelisim Vocational School and Vocational School of Health Services academicians came together for our friends on the street. In the meeting held with the participation of Lect. Ebru Cengiz, Lect Başak Göksel Karaağaç Asst. Prof. Dr. Nihan Ünlü, Lect. Aylin Koç from SHMYO academicians and Asst. Prof. Dr. Fatma Ulutürk and Asst. Prof. Dr. Esat Daşdemir from IGVS academicians, ideas and projects were discussed to protect the quality of life of street animals around our university in winter.



Lect. Ebru Cengiz, who organized the meeting, explained the purpose and scope of the meeting with the following words: "We want to build an environment where stray animals are integrated into our social life, accepted and not pushed around. Our aim is not to meet the needs of stray animals on a daily basis, but to develop an inclusive understanding that accepts stray animals at our university. In this direction, we discussed the projects that can be realized institutionally under the leadership of our university in this meeting attended by professors from two units of our university. Our stray animals in and around our campuses are also a stakeholder of our university, even internal stakeholders. In fact, these animals help us in the promotions of our university and represent our university. In return for their help, we will not withhold our love and compassion from them as much as we can. In the coming days, we have project and activity plans with our university, municipalities, private companies and various NGOs. We will continue to increase these. Our door is open to all animal-friendly professors and students." After the meeting, the cat and dog food collected with the efforts of Lect. Başak Göksel Karaağaç and Asst. Prof. Dr. Nihan Ünlü and their students was organized to be distributed regularly to our animal friends on our campuses throughout the winter month and our cats and dogs were fed at certain points. Our professors emphasize that in order for these activities to be sustainable, institutions should support these activities with a sense of social responsibility. In addition, at the end of the meeting, Mr. Suat, who spent his earnings as a recycling worker in our G Block campus on stray animals and passed away in recent months, was also commemorated with respect.

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# The Web Design and Coding **Program Held an Event**

Istanbul Gelisim

ocational School

The Web Design and Coding Program organized an event called "Let's Ask Someone Who Knows: Are You Ready to Explore the World with Erasmus?" event was held.

The event titled "Let's Ask Someone Who Knows: Are You Ready to Explore the World with Erasmus?" moderated by Lect. Cisem YAŞAR, Program Head of IGVS Web Design and Coding Program, was held with the participation of Mehmet Emir ÇETİNBERK, Assistant Specialist for International Exchange and Cooperation. The aim of the event was to introduce the international education opportunities offered by the Erasmus program and its contributions to personal development. During the event, the benefits of studying abroad with Erasmus in terms of career and cultural experiences were explained in detail, and information was given about application process and the opportunities offered by the program. By exploring the opportunities that the Erasmus program offers to students, it is aimed to better understand the contributions of studying abroad to their personal development.



In addition, information was provided on the Erasmus application process, required documents, application requirements and acceptance conditions, and solutions were offered for the difficulties encountered in this process. Participants were provided with comprehensive information about the scholarships, internship opportunities and opportunities to learn about different cultures, and were able to better understand how the Erasmus experience will add value to their education, career and cultural experiences. At the end of the event, students' questions were answered and the event was completed. We would like to thank our students and lecturers for their contributions.



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The full text of the article titled "Machine Learning Prediction Models for Maternal Health Risk" collaborated on by IGVS Web Design and Development Program Lecturer Çisem Yasar and IGVS Computer Technologies Program Lecturer Tugba Saray Çetinkaya, has been published in the journal "Veri Bilimi".

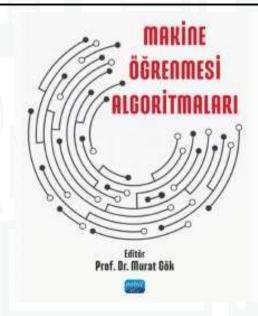
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**R & D** 

Asst. Prof. Dr. Sevda POLAT, a member of the staff of IGVS, Applied Russian Translation and Interpreting Program, published her book chapter titled "A Language Master Samuil Marshak" in the book HISTORY OF TRANSLATION - "Anthology of Interpreter Writers in 20th Century Russian Literary History I" published by Akademisyen Kitabevi in December 2024.

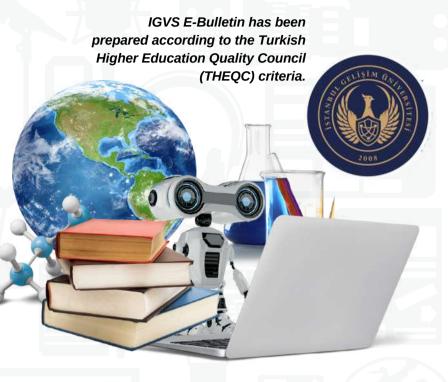
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mod=kitap\_detay&kitap\_id=39051

Istanbul Gelisim University Vocational School Information Security Technology Lec. Tuğba SARAY ÇETİNKAYA took part as an author in the book 'Machine Learning Algorithms' edited by Prof. Dr. Murat GÖK from Yalova University Computer Engineering Department and published by Nobel Academic Publishing. In the section 4.6 of the book titled 'Support Vector Machines', Prof. Dr. Murat GÖK and Lec. Tuğba SARAY ÇETİNKAYA took part as a co-author.



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IGVS Culinary Program lecturer Aslı MUSLU CAN's article titled "The Properties of Pectin Extracted from the Residues of Vinegar-Fermented Apple and Apple Pomace" was published in Fermentation journal.

https://www.mdpi.com/2311-5637/10/11/556

Aslı MUSLU CAN, lecturer at IGVS Culinary Program, defended doctoral thesis titled "Characterization of Pectins Derived from Apple and Apple Pomace **Applied** to Vinegar Fermentation" written under the supervision of Assoc. Prof. Avse KARADAĞ at Yıldız **Technical** University Institute of Science and of Technology, Department Food Engineering on 09.12.2024 and was awarded the title of doctor. As the IGVS family, we congratulate our professor and wish her continued success.

IGVS Electronics Technology Program lecturer Ali Çetinkaya has ranked in the top 5 in two different international ranking lists among 161192 active GitHub users in Turkey. While a total of 975 researchers are included in these lists, 27 of them continue their studies at universities in Turkey. Istanbul Gelisim University ranked first among the universities that achieved this success. GitHub is an international software platform for developing and sharing software projects and contributing to open source communities. Lecturer Ali Çetinkaya ranked 5th in Turkey in the "Top GitHub Users By Public Contributions in Turkey" and "Most active GitHub users in Turkey" rankings, which examine open source contribution and sharing statistics on GitHub.

https://github.com/acetinkaya



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# SOCIAL CONTRIBUTION



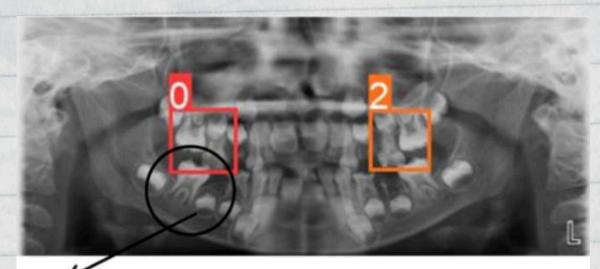
IGVS E-Bulletin has been prepared according to the Turkish Higher Education Quality Council (THEQC) criteria.

# Detection and Classification of Ectopic Eruption with YOLOv8

Computer Technology Program

Lect. Esen Turunç

Ectopic eruption is defined as the eruption of teeth in a different area or in an incorrect position from where they should be. This condition, especially seen in the first permanent molars, can lead to more serious oral and dental problems when left untreated. For this reason, early diagnosis and correct classification of diseases play a critical role in the success of treatment processes.



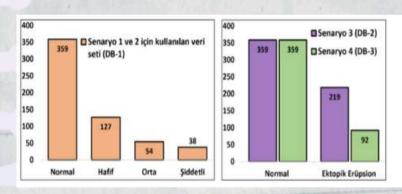
Süt dişi olmadığı için etiketlenmemiş veri

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In a study conducted in this direction, we focused on regional detection and severity classification of ectopic eruption using YOLOv8, one of the modern deep learning methods. Within the scope of the study, panoramic X-ray images of 168 children aged 5-9 years were used. The images were analyzed in detail by experienced dentists and labeled in four categories: mild, normal, moderate and severe.

In the study, four different scenarios were developed to evaluate the impact of different approaches. The model including violence classification and using data augmentation techniques showed a lower performance than the other approaches with an accuracy of 55.76%. In contrast, the accuracy of the model trained with only the original dataset was 62.54%. In two different scenarios, where the severity classification was not taken into account and the dataset was only organized as presence/absence of ectopic eruption, accuracy rates of 72.75% and 71.76% were achieved, respectively.



%	mAP@.5	mAP@[.5:.95]	Accuracy
Senaryo 1 Arttırılmış VeriSeti 4 Sınıf (Normal, Hafif, Orta, Şiddetli)	0.66	0.41	0.5576
Senaryo 2 Orijinal VeriSeti 4 Smrf (Normal, Hafif, Orta, Şiddetli)	6.70	0.44	0.6254
Senaryo 3 Orjinal VeriSeti 2 Sunf (Ektopik Erüpsiyon Var/Yok)	0.88	0.56	0.7275
Senaryo 4 Orjinal VeriSeti 2 Sınıf (Hafif Sınıfı Çıkarılmış) (Ektopik Erüpsiyon Var/Yok)	0.85	0.54	0.7176

The findings show that the YOLOv8 model can be a valuable tool in dentistry practice, especially in detecting and classifying ectopic eruption of first permanent molars. These results reveal that artificial intelligence-based solutions can contribute to early diagnosis processes and thus more effective treatment approaches can be developed.

The study provides an encouraging foundation for future research in both dentistry and artificial intelligence.

## References

E. Turunç, S. Arslan, H. O. Ilhan and Y. Yaşa, "Derin Öğrenme Yöntemleri ile Ektopik Erüpsiyon bölgelerinin tespiti ve şiddet sınıflandırması," 2024 International Congress on Human-Computer Interaction, Optimization and Robotic Applications (HORA), Istanbul, Turkiye, 2024, pp. 1-5, doi: 10.1109/HORA61326.2024.10550499.

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Computer Programming Program
Lecturer Kübra ÇETİNBERK

## **Shape Your Future with Erasmus+**

The Erasmus+ Program, one of the most prestigious exchange programs offered by the European Union, contributes to the academic and personal development of students. This program, which aims to enhance students' academic, social, and cultural growth, is not just an educational process but also a journey of discovery.

So, why is Erasmus+ so important? Because it is not only an educational process but also the chance to rebuild yourself by exploring different cultures, languages, and lifestyles!

## **Erasmus+ Program at Istanbul Gelisim University**

Istanbul Gelisim University, which prioritizes internationalization in education, provides its students with a broad vision through its emphasis on the Erasmus+ program. With 382 agreements with 142 universities in 27 European countries, the university offers a vast network of mobility to students.

Erasmus+ learning mobility allows students to study for at least one semester (2 months) or up to one academic year (12 months) at a university holding an ECHE (Erasmus Charter for Higher Education). Similarly, Erasmus+ Internship Mobility allows students to gain professional experience in businesses abroad.

Erasmus+ is especially a great opportunity for associate degree students! In their first year, they can apply for learning mobility or an internship, and in their second year, they can take more solid steps in their careers by doing an internship before graduation.

## **Erasmus+ Internship Mobility**

Erasmus+ is not only an opportunity for academic education but also offers an exceptional chance to gain professional experience. Internship mobility helps students steer their careers at an early age by working abroad. The duration of the internship can range from 2 months to 12 months and can also be completed within 12 months after graduation.



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During this process, students select the institution where they will intern and obtain the necessary acceptance letter. Working at a business abroad not only enhances their professional qualifications but also helps them improve their ability to adapt to cultural differences.

## **Applications and Platforms to Follow**

Applications for the Erasmus+ program are made every academic year through the Turna Application Portal. The application process has not started yet for this year. However, to follow Erasmus+ mobility and stay informed about updates, you can visit the following platforms:

- https://turnaportal.ua.gov.tr/
- https://aday.gelisim.edu.tr/ad ay-ogrenci/erasmusprogrami
- https://www.instagram.com/e rasmus\_igu/

Please remember that students need to meet certain criteria, such as their GPA and foreign language proficiency, during the application process. Additionally, students who have not taken any foreign language proficiency exams are required to participate in the Erasmus Language Exam organized by the university.

Students wishing to participate in the Erasmus+ program need to meet the following criteria:

- A minimum GPA of 2.20/4.00 for associate/bachelor's level students, and 3.00/4.00 for graduate students.
- Completion of at least the first year of the university's formal education program.
- A foreign language proficiency of at least 60/100 in YDS, YÖKDİL, or an equivalent exam.

Applications are made via the Turna Application Portal of Istanbul Gelisim University. Additionally, students who do not have language proficiency can take the Erasmus Language Exam.

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## What You Will Gain from Erasmus+

Erasmus+ is not just an exchange program; it is an experience that will shape your life. Here are some key benefits that Erasmus+ will offer you:

- International Vision: Studying in a new country allows you to view life from a different perspective and broadens your vision.
- Opportunity to Learn a Second Language: The program, which involves attending universities where the medium of instruction is English, helps improve your language skills. You will also have the opportunity to learn the language of the country you are going to.
- Career Advantage: The Erasmus experience strengthens your CV and makes you a more attractive candidate to employers.
- **Cultural Discovery:** It offers the chance to explore a new country and culture. Furthermore, you can also visit neighboring countries thanks to Erasmus.
- Friendships and Connections: You can build lifelong friendships by meeting students from all around the world.
- Independence and Self-confidence: The Erasmus+ experience helps students learn to stand on their own feet, strengthens their independence, and boosts their self-confidence with each new step.
- Sense of Responsibility and Adaptability: The process of adapting to a new culture and education system reinforces students' sense of responsibility while enhancing their ability to adapt to rapid changes.

## **Don't Miss the Opportunities**

The Erasmus+ Program is an horizon-expanding opportunity for students. Make sure to seize this experience, which will add value to both your academic and social life. With Istanbul Gelisim University's strong international collaboration network and supportive approach, Erasmus+ mobility could be a turning point in your future as well. Remember, this is not only an educational journey but also an opportunity to discover yourself.

Are you ready to invest in your future with Erasmus+ today?

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## Innovative Approaches to Lossless Data Compression with Neural Network Model LSTM and Transformer

Computer Programming Programme Lect. Aysun YILMAZ KIZILBOĞA Lect. Sena Nur BENLİ

Lossless data compression is a compression method that allows data to take up less space by preserving the original data in its complete form. Technologically, it is often preferred as it plays a critical role in data management and transmission.

Neural network based models have been investigated in the field of data compression in recent years. Significant progress has been made in this field with the use of Long Short-Term Memory (LSTM) and Transformer Neural Network Models. Overcoming the limitations of traditional methods, these approaches attracts attention with its potential to improve compression ratios.

## **LSTM (Long Short-Term Memory) Model**

LSTM Model is a type of neural network known for its success in sequential data processing and time series analysis. This feature makes the representation of the data more compact and allows for compression.

In the LSTM model, each cell takes the output of the corresponding cells of the previous layers and the previous symbol as input, increasing the predictability of data in compression algorithms.

The compression process can be improved by combining LSTM's outputs with traditional coding methods such as Huffman. In addition, LSTM can create more compact representation of sequences in encoder-decoder architectures.

LSTM-based models can have high computational and memory requirements. These limitations can lead to performance problems, especially when working with large data sets. The performance of this model depends on training the correct hyperparameters. Performance problems can be avoided by choosing the right parameters.

As a result, LSTM models stand out as a promising option in the field of lossless data compression and offer significant advantages compared to traditional methods.

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## **Transformer Model**

Transformers, which have shown superior performance in many tasks such as language modelling, machine translation and natural language processing (NLP), have emerged as an effective solution in the field of lossless data compression.

Unlike traditional methods, transformer-based models operate without the need for manually designed features. This flexibility enables models to adapt to a wider range of data and optimise data-driven learning processes. In this context, the limitations of PAQ-based statistical methods are addressed and a fully neural network-based compression method is developed.

In particular, the advantages of transformer architectures in predictive modelling and entropy coding processes are investigated. In order to increase the applicability of the transformer architecture in lossless data compression, a number of innovative improvements have been realised. Some of these improvements are as follows:

- The Self-Attention Mechanism: Effectively treat long-distance addictions optimised for modelling, thus enabling better learning of language structures.
- GELU Activation Function: This function, which is used instead of the traditional ReLU, improves compression performance by capturing the non-linear features of the model more successfully.
- Adding n-Gram Information: The inclusion of n-gram features in the model inputs
  resulted in a significant improvement in compression rates and allowed for more
  efficient processing of language dependencies.
- Online Learning Strategies: By revisiting previously compressed data, the prediction accuracy of the model is increased and the compression ratio is significantly improved.

These innovations have enabled transformer-based models to perform a more effective learning process while increasing compression ratios.

The scalability and flexibility offered by transformer-based models open new horizons in the field of lossless data compression. Research into larger data sets and different application domains will allow this technology to be more widely adopted in the future.

In conclusion, the transformer architecture will continue to provide innovative and effective solutions to lossless data compression problems.

#### **Resources:**

- Fabrice Bellard, Lossless Data Compression with Neural Networks, https://bellard.org/nncp/nncp.pdf.
- Fabrice Bellard, Lossless Data Compression with Neural Networks, https://bellard.org/nncp/nncp\_v2.pdf.



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The Occupational Health and Safety Club is a student club established under the Directorate of Health, Culture, and Sports (SKS) at Istanbul Gelisim University. The club is advised by Lect. Türker YAPAN, from the Occupational Health and Safety Program of the Department of Property Protection and Security at Istanbul Gelişim Vocational School.



The primary aim of the Occupational Health and Safety Club is to raise students' awareness about occupational health and safety, promote consciousness, and organize activities to translate theoretical knowledge in this field into practice. Some more specific objectives are listed below:

- Creating Awareness: To raise awareness about workplace accidents and occupational diseases, and emphasizing the importance of occupational safety.
- Organizing Trainings and Seminars: To collaborate with experts to hold seminars and workshops on current industry developments, legal regulations, and safety measures.
- **Providing Practical Training:** To provide students with experiential learning activities such as workshops and field trips on occupational health and safety practices.
- Conducting Projects and Research: To encourage club members to undertake projects and research on occupational health and safety.
- Facilitating Collaboration and Networking Opportunities: To support students' career development by fostering collaboration with industry professionals and other universities.



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With these objectives, the club aims to contribute to the academic and professional development of students.

The objectives of the Occupational Health and Safety Club are defined as follows to make the club's mission more concrete:

- **1. Raising Awareness and Educating Students:** To increase university students' awareness of occupational health and safety, informing them about the risks and safety measures they may encounter in their professional lives.
- 2. **Providing Training and Practical Opportunities:** To provide students with both theoretical and practical knowledge by providing seminars, workshops and field applications through the club.
- 3. **Strengthening Industry Relations:** To create internship and job opportunities for students by collaborating with companies and experts in the field of occupational health and safety.
- 4. **Supporting Projects and Research:** To encourage club members to conduct research on occupational health and safety issues and to contribute to scientific projects.
- 5. Raising Public Awareness: To organize awareness campaigns for communities outside the university and the business world, and to participate in social responsibility projects.
- 6. **Promoting a Safety Culture:** To instill a safety culture in students and encourage them to apply this culture in their future careers.
- 7. **Providing Networking Opportunities:** To facilitate students' job search after graduation by organizing events and career days that allow them to meet industry professionals.

Bu hedefler, kulübün vizyonuna ulaşmasına yardımcı olurken öğrencilere geniş bir gelişim alanı sunacaktır.



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# **OUR STAKEHOLDERS**













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GELISIM MESLEK

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