

DEPARTMENT OF ELECTRICAL AND ELECTRONICS ENGINEERING

Istanbul Gelişim University Faculty of Engineering and Architecture

“The Department of Electrical and Electronics Engineering aims to provide an education that aims to reach the level that engineering has reached in the world and brings together students with faculty members who are experts in their fields.”

Asst. Prof. Nevzat Yağız TOMBAL

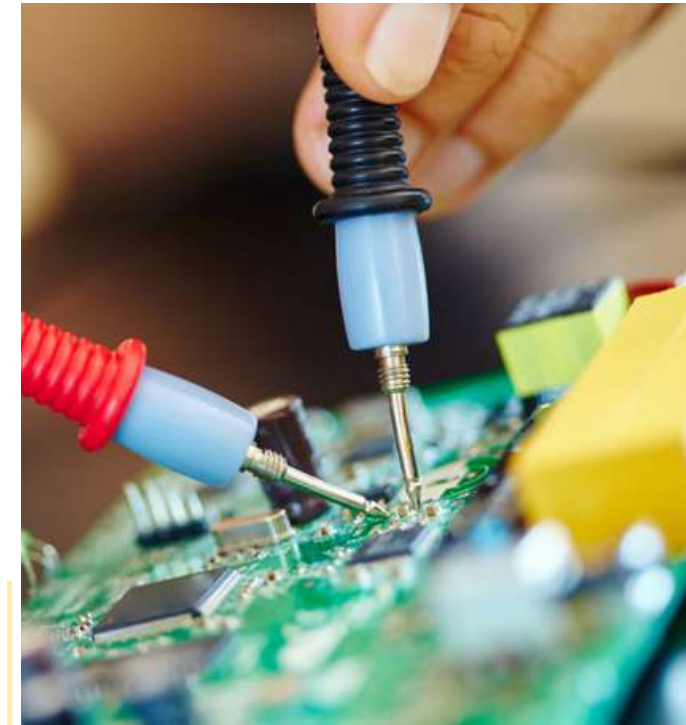
Head of Department of Electrical and Electronics Engineering





Discover the Power of Electrical and Electronics Engineering!

Electrical and Electronics Engineering is a constantly evolving field that forms the basis of the modern world. This branch of engineering plays a critical role in the development of advanced technologies such as artificial intelligence, internet of things (IoT), renewable energy and 5G, revolutionizing every aspect of life. Electrical and electronic engineers not only design innovative devices and systems, but also produce solutions that directly affect human life, such as cyber security and health technologies. Those who choose to pursue a career in this field will play a key role in building a more connected, sustainable and secure future by pushing the boundaries of technology.



We aim to create a sustainable and connected world by shaping the technologies of the future.

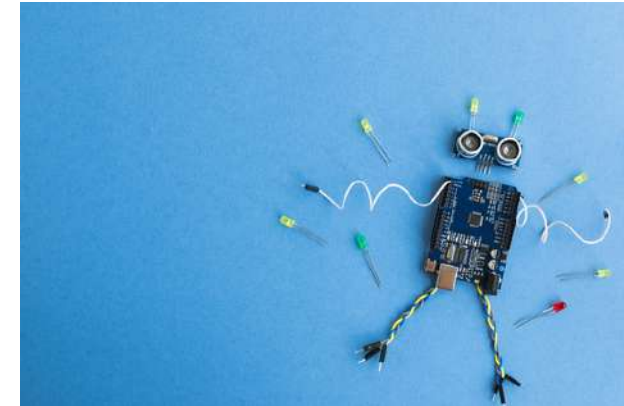
Purpose of the Section

The mission of the Department of Electrical and Electronics Engineering is to train engineers who are sensitive to universal values, aiming to contribute to the problems of society with an innovative and open-to-development approach, where joint projects are carried out with well-known international educational institutions in their field..

“The department provides students with knowledge and skills in accordance with the requirements in the sector and prepares its graduates for a successful career.”

Future of the Department

Electrical and Electronics Engineering has a critical importance in the rapidly developing world of technology and its future looks quite bright. Ongoing innovations in fields such as artificial intelligence, internet of things (IoT), renewable energy, 5G and autonomous vehicles make this branch of engineering even more indispensable. Electrical and electronic engineers play an important role not only in the development of technological devices and systems, but also in areas that directly affect human life, such as cyber security and health technologies. Therefore, individuals educated in this field will play a key role in shaping the future and will encounter expanding and diversifying opportunities in their careers.





Program and Curriculum Information

In order to graduate from Istanbul Gelisim University, Faculty of Engineering and Architecture, Department of Electrical and Electronics Engineering, it is necessary to complete a total of 139 credits and a course load of 240 ECTS. They take necessary basic courses such as "Introduction to Engineering, Academic Achievement and Social Life Skills, History of Science and Technology, Basic Computer Education, Technical Communication and Presentation Skills". Starting from the third year, our students begin to take elective courses in addition to the compulsory courses required for this branch. In this context, interdisciplinary education is provided with elective courses offered to the entire faculty. In addition, they receive training on different subjects along with social elective courses aimed at strengthening the student's world view and gaining additional skills. During the education process, students encounter theoretical courses, laboratory studies and project-based assignments on a semester basis. Additionally, the portfolio creation process is also an important component and helps students develop their engineering skills and style.

In the fourth year, our students have decided on the area they will specialize in and put forward a graduation project in the light of all the information they have learned in four years, together with the Graduation Project course.

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The department provides students with knowledge and skills relevant to the needs of the industry and prepares its graduates for a successful career.

Asst. Prof. Nevzat Yağız TOMBAL
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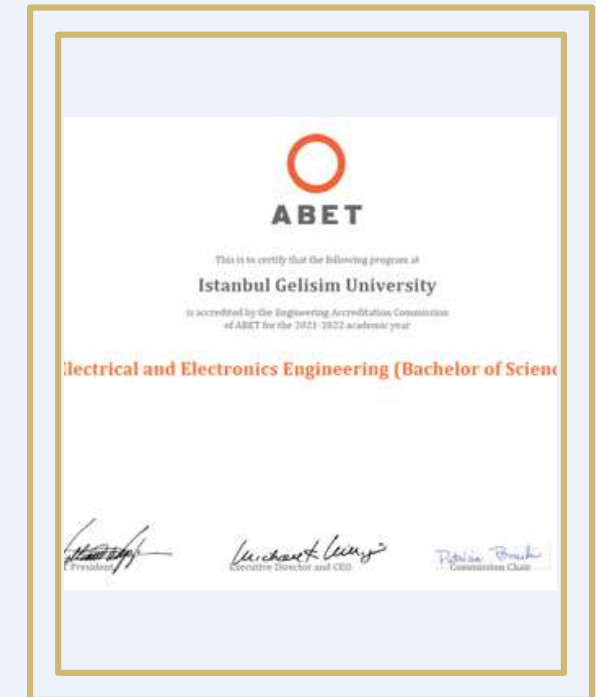
Department Accreditation

The Department of Electrical and Electronics Engineering offers wide educational opportunities to its students and graduates with international accreditations and protocols with foreign universities.

IGU, which made significant investments in its physical capacity, human resources and opportunities provided to its students on the path to becoming a "Respected World University", started a very ambitious breakthrough process in 2020.

ABET (Accreditation Board for Engineering and Technology) is a U.S. non-profit organization that accredits engineering and technology higher education programs. It is a centered organization. Although there are many organizations around the world that audit whether higher education programs are carried out within certain norms in terms of teaching processes and outcomes, ABET is the leading organization in this field in terms of audit approaches and methods, especially when it comes to the audit of engineering programs.

IGU Electrical and Electronics Engineering Undergraduate Program is a program accredited by the USA-based ABET Engineering Accreditation Commission (EAC).



"Our accredited departments provide students with a competitive advantage internationally!"

Asst. Prof. Ercan AYKUT



Learning Outcomes

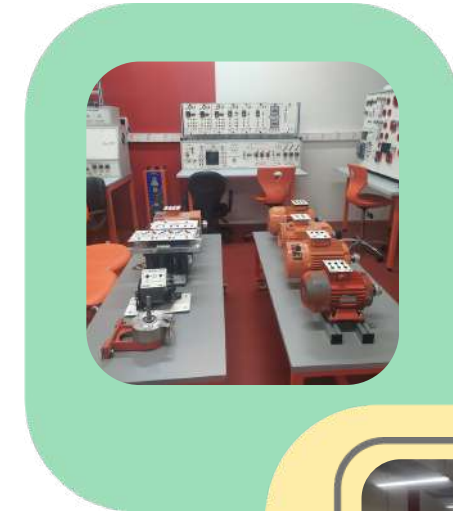
The learning outcomes of the department are as follows:

1. Ability to identify, formulate and solve complex engineering problems by applying engineering, science and mathematics principles
2. Ability to apply engineering design to produce solutions that meet specific needs, taking into account global, cultural, social, environmental and economic factors, as well as public health, safety and welfare
3. Ability to communicate effectively with a variety of audiences
4. Ability to recognize ethical and professional responsibilities in engineering situations and make informed decisions that must consider the impact of engineering solutions in global, economic, environmental and societal contexts
5. Ability to work effectively in a team where members provide leadership together, create a collaborative and inclusive environment, set goals, plan tasks, and meet objectives
6. Ability to develop and conduct appropriate experiments, analyze and interpret data, and use engineering judgment to draw conclusions.
7. Ability to acquire and apply new knowledge when necessary, using appropriate learning strategies.



Gain Experience in Laboratories and Workshops

- Computer Laboratories
- Electrical - Electronics Laboratory
- Renewable Energy Sources -
Electrical Machines and Power
Elements Laboratory
- Communication Systems and
Microprocessor Laboratory





Touch the Future with Engineering

Leadership ability in various engineering projects: Our Electrical and Electronics Engineering department provides students with leadership and project management skills in different engineering disciplines. This involves working on a wide range of engineering projects, from electrical circuit designs to communications systems, from control systems to robotics projects.

Versatile Program Structure: Our department offers students courses covering various disciplines in design fields as well as basic engineering courses. This structure allows students to shape their programs according to their own interests and abilities.

“ You can effectively use the information you obtain in our Electrical and Electronics Engineering department in your further academic education processes or by associating it with a different field discipline.

Asst. Prof. Halit YAHYA

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Ability to solve problems: The Electrical and Electronics Engineering department provides students with a strong training in identifying, analyzing and solving engineering problems. In this way, our graduates can produce effective and innovative solutions to the real-world problems they encounter.

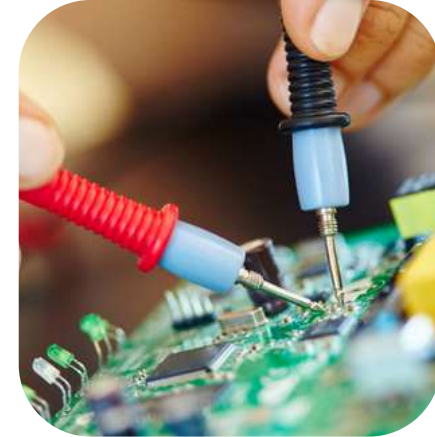
Sustainable and Socially Compatible Engineers: Our department focuses on educating our students as professional engineers who can adapt future engineering projects to the needs of society and environmental sensitivities by equipping them with sustainability principles.

Our Innovative Courses

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Our students receive a more comprehensive education by gaining knowledge and experience from other current disciplines as well as their own fields.
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Assist. Prof. Ayşe KARAÖĞLU (PhD)

- MICROWAVE TECHNIQUES
- FIBER OPTIC COMMUNICATION SYSTEMS
- DIGITAL SIGN PROCESSING
- DIGITAL ELECTRONIC CIRCUITS
- ANTENNAS AND PROPAGATION
- INTRODUCTION TO ROBOTIC SYSTEMS
- BIOMEDICAL INSTRUMENTATION
- NUMERICAL CONTROL SYSTEMS
- MICROCONTROLLERS AND INDUSTRIAL
- APPLICATIONS
- SENSORS AND DETECTORS
- FPGA DESIGN
- INTRODUCTION TO NANOTECHNOLOGY
- POWER ELECTRONICS CIRCUIT DESIGN
- DISCRETE-TIME CONTROL SYSTEMS
- AUTOMATION IN TRANSPORTATION SYSTEMS
- PROTECTION IN ELECTRICAL INSTALLATIONS
- ENERGY DISTRIBUTION SYSTEMS
- RENEWABLE ENERGY SYSTEMS
- ENERGY TRANSMISSION LINES



Our Academic Staff



Asst. Prof.
Nevzat Yağız TOMBAL
Head of Department



Asst. Prof.
Turgut ŞAHİN



Asst. Prof.
Turgay YALÇIN



Asst. Prof.
Ercan AYKUT



Res. Asst.
Elif ÖZTÜRK



Prof.
Bayram ÜNAL



Asst. Prof.
Ayşe KARAOĞLU



Res. Asst.
Beray İKİNCİ



Asst. Prof.
**Banafsheh Alizadeh
ARASHLOO**



Asst. Prof.
**Samer Ali Hussian
SULAEMAN**



Asst. Prof.
Halit YAHYA



Asst. Prof.
Hamidullah RIAZ

In our department, the academic staff consists of faculty members with a wide range of areas of expertise. This diversity ensures that our students are nourished by a broad perspective and become effective engineers. Our students progress towards becoming effective engineers by receiving training in a wide range of specialties in the department. In this way, they gain different perspectives and join the creative and well-equipped engineers needed by the sector.

Engineers and Architects of the Future are Being Trained at IGU MMF!

Our university and our Electrical and Electronics Engineering department not only offer our students the opportunity to gain knowledge and skills, but also provide an environment for them to reveal their unique contributions and add value to society. While our students improve their skills through various workshops, they experience learning while having fun at festivals, and they raise awareness in society through social responsibility projects. They also have the chance to show themselves in various competitions. While these activities contribute to the development of our students' collaboration abilities and teamwork skills, they also provide career opportunities.

The activities taking place in our department are as follows:

- Workshops
- Social Responsibility
- Projects
- Student Club Activities
- Seminars and Symposiums
- Interviews





Career Opportunities

There are a wide range of job opportunities for electrical and electronics engineering graduates in the public and private sectors.

- Energy production, transmission, distribution
- Medium and high voltage systems
- Renewable energy
- Smart grids
- Low voltage, control and automation systems
- Electrical machines
- Electric vehicles
- Power electronics
- Electronic circuit systems
- Communication and telecommunication systems
- Software, informatics and artificial intelligence
- Robotics and mechatronic systems
- Defense industry and aviation



Who Should Choose?

- Interested in technology
- Interested and curious about engineering, mathematics and physical sciences
- Being disciplined and responsible, having strong social and communication skills.
- Following current trends
- Those who want to improve their communication skills
- Able to produce innovative ideas

Anyone considering a career plan in this sector can apply.

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Our Electrical and Electronics Engineering department prepares our students for the future by focusing on how to adapt to the digitalizing world and the rapid development of artificial intelligence and technology.

Asst. Prof. Turgut ŞAHİN

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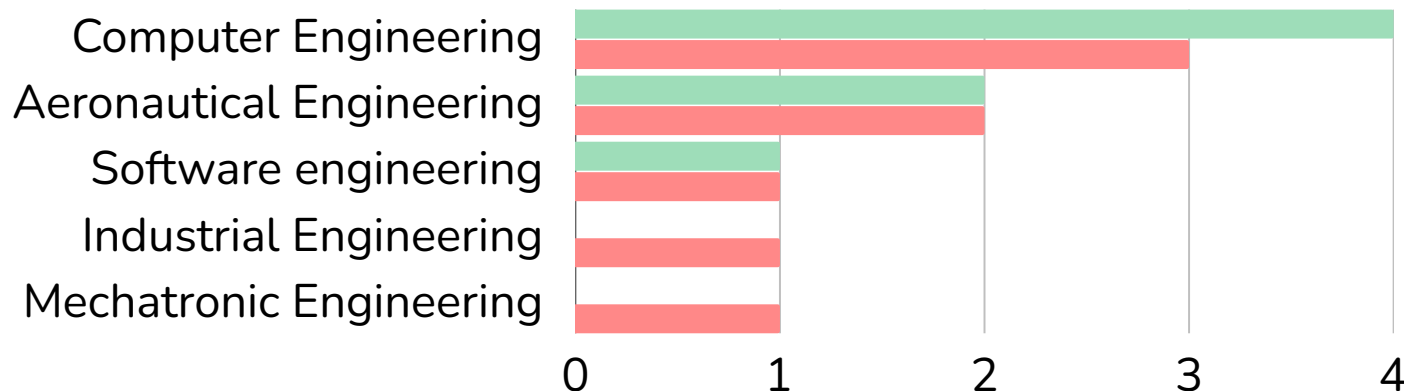
Free Double Major Opportunity

The purpose of the double major program is to enable students who complete their major programs with outstanding success to also receive a diploma in a second branch free of charge. Students whose GPA in the major program is 2.72 out of 4.00 and who are in the 20% success bracket in their undergraduate/associate degree program can start the second major diploma program free of charge.

Department of Electrical and Electronics Engineering In which departments do students do their MA?

● Out of Section

● From Outside to Department





Sector Cooperation for a Strong Future

Our university attaches great importance to cooperation with the public, private sector and non-governmental organizations in its pursuit of excellence in education and research. These collaborations enable us to build a stronger future by sharing our knowledge and resources, working together to achieve common goals.



Start Your Internship Journey and Shape Your Future!

Our students encounter their first career path at the end of their second and third years, when they start their summer internships. Students take their first steps into the sector with the Summer Internship I and Summer Internship II compulsory courses in our curriculum. In order to graduate, they must complete a 60-day summer internship working in their field.

The institutions we cooperate with as stakeholders are as follows:



Step by Step on the Path to Internationalization

Our department stands out as an educational institution that not only transfers academic knowledge and skills, but also attaches great importance to equality and diversity. In this context, we are trying to create an environment where different cultures and perspectives, including our international students, come together.

Our international students not only bring different perspectives and experiences to our classes, but also contribute to the global atmosphere of our campus and region. They add color and liveliness to our campus with their different languages, traditions and artistic richness.





Our TUBITAK Projects

PROJECT NAME: Transferring Istanbul Gelişim Vocational School Digital
Electronics Laboratory Course to Virtual Reality Environment

*"Completing the project will give you a significant advantage in terms of
advancing your academic career and future job opportunities."*

Asst. Prof. Ercan AYKUT



Strong Steps to the Future: Our Graduates

AL* AR*****

Vodafone Holding A.Ş

Turkey

Senior Information Technology
Specialist

UT* SE*****

TEI - TUSAŞ MOTOR SANAYİ

Engineering

FU* ÇE*****

HUAWEI

Software engineer

TU* ZE*****

Borusan Holding

Business Analyst

MU* CA*****

HAVELSAN

System Integration Engineer

SE* AK*****

Halkbank

Network Operations Engineer

You can visit our department's website for more alumni information.



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| Let's Learn
Together
Together
Let's
explore!

**DEPARTMENT
OF
ELECTRICAL
AND
ELECTRONICS
ENGINEERING**

***For more information, you can
contact the department head:***
nytombal@gelisim.edu.tr

COMMUNICATION:



mmf.gelisim.edu.tr



0212 422 70 00