

DEPARTMENT OF INDUSTRIAL ENGINEERING

Istanbul Gelisim University Faculty of Engineering and Architecture

“Industrial Engineers understand how to make or make things better. This is what gives Industrial Engineers such flexibility.”

Prof. Tarık ÇAKAR (PhD)

Head of Industrial Engineering Department



INDUSTRIAL ENGINEERING

Industrial Engineering, which is among the professions of the future and among the respected branches of engineering, cannot be expressed with a single definition, but in short, it is an engineering field that serves as a bridge between people, institutions and systems in a way that increases quality and efficiency. In a broader sense, Industrial Engineering; It takes part in the improvement, development, execution, reorganization, coordinated and harmonious operation and supervision of all business systems consisting of inputs such as human, machine, material, environment, time, information, informatics and technology.

The main aim of Industrial Engineers, who are responsible for using resources at the optimum level in the production of goods and services, is to increase efficiency and effectiveness in all business areas and reduce costs. Industrial Engineering, which does not have a clear job field and job description, differs from other engineering branches with this feature and can be described as "multi-professional-wildcard-engineering" in a way.



Successful engineers are expected to be experienced in skills such as communication, ethics, entrepreneurial thinking and professionalism, as well as technical engineering skills.

Purpose of the Section


Thanks to the knowledge and skills they have gained during their undergraduate education, our graduates have the equipment and qualifications to ensure the improvement, design and management of business systems and processes in businesses and organizations in line with the principles of effectiveness, efficiency, profitability, flexibility, sensitivity, sustainability and high quality, in harmony with the environment, and are socially responsible. and to train modern and qualified Industrial Engineers with strong professional ethics.

“Industrial engineers use scientific knowledge to solve problems in manufacturing and other industries, businesses, and institutions, focusing on improving productivity through better use of human resources, financial resources, natural resources, and man-made structures and equipment.”

Future of the Department

Accepted and appreciated by national and international academic and industrial organizations with its modern and qualified education system; Bringing values that will make a difference to its students; Our aim is to be a department that trains qualified Industrial Engineers who are researchers, innovative, internalized ethical values, prone to teamwork, competitive, entrepreneurial and leading.





Program and Curriculum Information

In order to graduate from Istanbul Gelişim University, Faculty of Engineering and Architecture, Department of Industrial Engineering, it is necessary to complete a total of 138 credits and a course load of 240 ECTS.


In the first year, our students take basic courses such as "Physics", "Chemistry", "Mathematics", "Foreign Language", "Computer Aided Technical Drawing" and "Introduction to Computer Programming", which are common to all departments of the Faculty of Engineering and Architecture.

Starting from the third year, they begin to take elective courses in addition to the compulsory courses for this branch. Thus, our students have the right to choose courses according to their interests and develop themselves in the field they want to work in the future. Additionally, they gain additional skills by studying different subjects while expanding their worldview through social elective courses. Throughout the learning process, students encounter theoretical lectures, laboratory studies and project-based assignments.

In the fourth year, having decided on the field they want to specialize in, they take the "Industrial Engineering Project" and "Graduation Design Project" courses and prepare their graduation projects in the light of the knowledge they have acquired over the four years.

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Industrial Engineers use a range of analytical, simulation and experimentation methods applied to problems in the design, planning, implementation and operating systems.
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Prof. Tarık ÇAKAR (PhD)



Department Accreditation

Istanbul Gelisim University, which attaches great importance to internationalization in education, offers great advantages to its students and graduates with international accreditations.

IGU, which has made significant investments in its physical capacity, human resources and opportunities provided to its students in order to become a "Respected World University", started a very ambitious breakthrough process in 2018.

With these studies, which started in 2018, the Department of Industrial Engineering of the Faculty of Engineering and Architecture has become a member of the U.S. Department of Engineering, which accredits engineering and technology higher education programs. It was found suitable for accreditation by ABET, an organization based in Istanbul, and received its accreditation documents.

Istanbul Gelisim University Industrial Engineering program students and graduates are assured by ABET that they meet the quality standards of the education and profession recognized in international quality standards.

Istanbul Gelisim University Industrial Engineering Department is one of the 7 Industrial Engineering departments in Turkey accredited by ABET.



"Our accredited department offers students a competitive advantage in the global arena!"



Learning Outcomes

The learning outcomes of the department are as follows:

- Ability to identify, formulate and solve complex engineering problems based on foundations of engineering, science and mathematics
- Ability to apply engineering design to produce solutions that meet specific needs, taking into account public health, safety and welfare, as well as global, cultural, social, environmental and economic factors.
- Ability to communicate effectively with various stakeholders
- Ability to recognize ethical and professional responsibilities in engineering and make informed decisions considering the impact of engineering solutions in their global, economic, environmental and societal contexts
- Ability to work effectively on a team where members provide leadership together, create a collaborative and inclusive environment, set goals, plan tasks, and meet objectives
- Ability to design and conduct appropriate experiments, analyze and interpret data, and apply engineering principles to draw conclusions.
- Ability to find ways to acquire and apply new knowledge when necessary, using appropriate learning strategies

Gaining Experience with Laboratories

- **Ergonomics Laboratory**

Our Work Science Laboratory is a fully equipped laboratory with the most advanced devices and equipment for Work Study and Ergonomics courses, where these courses are practiced, and it is in a privileged position among all universities with its equipment and device capacity.

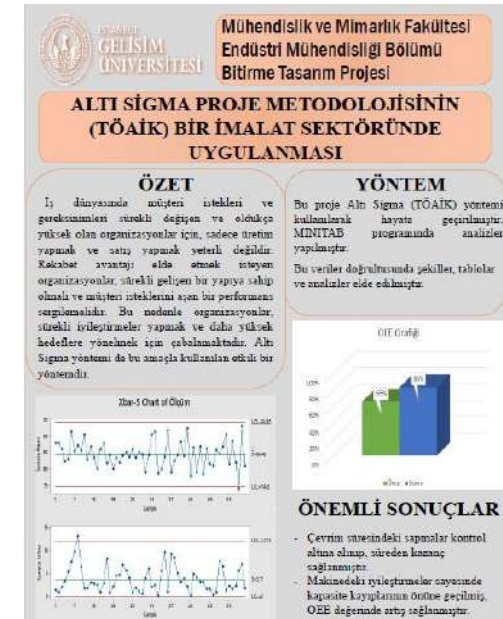
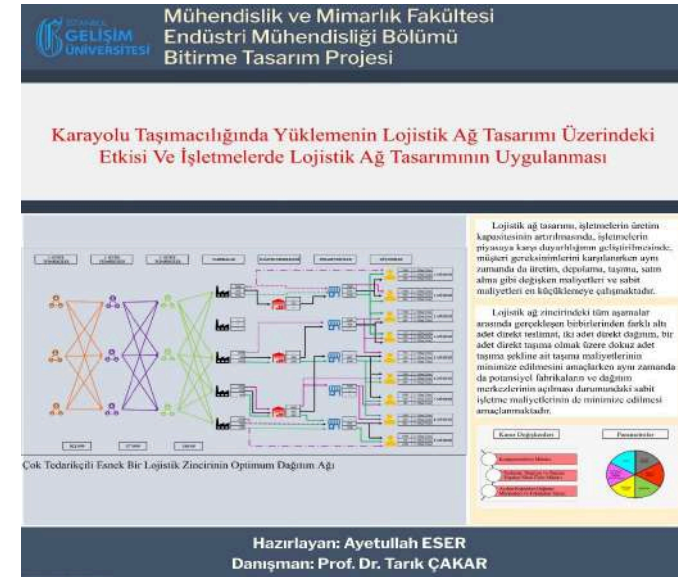
- **Management Techniques Laboratory**

Our Management Techniques Laboratory supports training and research activities aimed at determining the appropriate methods and tools to be used in designing, evaluating, analyzing management systems, implementing or improving these solutions and using them effectively.



First Step to Your Career Journey: Graduation Design Projects

Our students take the "Industrial Engineering Project" and "Graduation Design Project" courses in the fourth year and enter into a comprehensive study process with their advisors on the subjects they choose. In this process, students have the opportunity to put their theoretical knowledge into practice and develop innovative engineering solutions to real-world problems. Projects provide our students with important skills such as engineering design, problem solving and project management. They develop their studies in the light of guidance and feedback provided by faculty members who are experts in their fields. At the end of the year, they demonstrate their knowledge and competence by defending their graduation projects in detail in front of an academic jury. As a result of successfully defended theses, our students are eligible to graduate and move on to professional life with confident steps.



Our Innovative Courses

In our Department of Industrial Engineering, we offer our students an innovative and comprehensive education. Our training program includes a variety of courses that give our students the opportunity to put their theoretical knowledge into practice and develop creative solutions to real-world problems. Thanks to these courses, our students gain in-depth knowledge and skills in areas such as engineering design, problem solving, project management and economic analysis. Our program is also supported by courses that encourage the spirit of entrepreneurship and offer students the opportunity to develop their own business ideas. Through these courses, our students develop the innovative thinking ability and leadership skills needed in the business world.

Our International Quality Approved, modern and forward-looking curriculum not only provides students with theoretical knowledge but also introduces them to the latest developments of the industry.

- Simulation
- Engineering Economics
- Operations research
- Entrepreneurship
- Facility Planning
- Work study
- Ergonomics
- Statistical analysis
- Production and Operations Management
- Production methods can be given as an example for our lessons.





Our Academic Staff



Prof. Tarık ÇAKAR (PhD)

Head of Department of Industrial Engineering Department



Prof. Kenan ÖZDEN (PhD)

Department of Industrial Engineering



Prof. Yılmaz ÖZKAN (PhD)

Department of Industrial Engineering



Prof. Cemalettin KUBAT (PhD)

Department of Industrial Engineering



Assist. Prof. Didem YILMAZ (PhD)

Department of Industrial Engineering



Assist. Prof. Seda ERBAYRAK (PhD)

Department of Industrial Engineering



Assist. Prof. Binnur GÜRÜL (PhD)

Department of Industrial Engineering



Assist. Prof. Umut Hulusi İNAN (PhD)

Department of Industrial Engineering



Assist. Prof. Mert YILDIRIM (PhD)

Department of Industrial Engineering



Assist. Prof. Nurdan TÜYSÜZ (PhD)

Department of Industrial Engineering



Res. Asst. Duygu TÜYLÜ

Department of Industrial Engineering



Res. Asst. Nesrin KOLUKIRIK

Department of Industrial Engineering

Engineers of the Future are Being Trained at IGU MMF!

Our university and our department contribute not only to gaining knowledge and skills, but also to progress towards becoming an individual who will make her/his own difference and contribute to society.


Our students have the opportunity to reinforce their knowledge with various technical trips and events, learn by having fun at festivals, raise awareness in social-responsibility projects and participate in unforgettable events.

With these activities, our students are offered opportunities for collaboration, developing team skills and career opportunities.

Some events taking place in our department are as follows:

- Development Summit
- Summit Event
- Alumni Interview
- Breaking Point Event
- Basic Level Excel Training
- Online LinkedIn Training
- ADS Engineering Technical Trip
- 2M Cable Technical Tour
- Online ERP Workshop Event
- Recruitment and Interview Techniques Training
- Online Live Morale Concert for Nursing Home
- Lean Six Sigma Applied Training
- MS Project Training
- Industry 4.0 and Digitalization Conference
- Industry 4.0 and Innovation Conference





Career Opportunities

Industrial Engineers work in various sectors from banking to automotive, telecommunications and energy.

- Automotive
- Textile
- Production
- Informatics
- Finance
- Consultancy
- Electrical-Electronics
- Mining and Metal Industry
- Food
- Chemical
- Service
- Education
- Logistics can be given as an example of the sectors in which our graduates work.



Who Should Choose?

- Able to look at life from a system perspective,
- Able to question events for their reasons,
- Has made method development a way of life,
- Able to make quick decisions
- People who want to improve themselves in terms of increasing productivity and process development may prefer this department.

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The focus of industrial engineering; problem solving, system integration and development.
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Free Double Major Opportunity

The purpose of the double major program is to ensure that students who complete their major programs with outstanding success can also receive a diploma in a second branch for FREE. 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 Industrial Engineering In which departments do students do their MA?

COMPUTER ENGINEERING

ELECTRICAL ELECTRONICS ENGINEERING

MECHATRONIC ENGINEERING

AIRCRAFT ENGINEERING

SOFTWARE ENGINEERING

"The purpose of the double major program is to enable students who successfully complete their undergraduate programs in their own departments to optionally also study to obtain a bachelor's degree in a second major. "Thanks to the Double Major Program, students can have two different professions and specializations."

Sector Collaboration for a Strong Future

Our university and our department cooperate with various institutions and organizations in the pursuit of excellence in education and research and attach great importance to this issue.

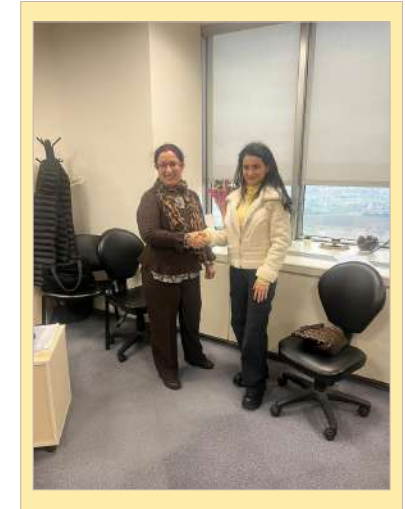
These collaborations allow us to work together to achieve common goals and build a stronger future by sharing information and resources.

Start Your Internship Journey and Shape Your Future!

In order to graduate, our students must successfully complete the compulsory 30-day "Production" and "Management" internships. "Production Internship" is held in the summer following the second year, and "Management Internship" is held in the summer following the third year.

With internships, our students have the opportunity to take their first steps in the industry and apply the theoretical knowledge they have gained in classes in real life.

Examples of meetings where we collaborate as stakeholders are as follows:



Step by Step on the Path to Internationalization

Erasmus (European Region Action Scheme for the Mobility of University Students) Program is a student exchange program between European countries and has been continuing since 1987.

With the Erasmus Program, education can be continued in another country for 3-12 months. During this exchange, the courses our students will take during the program will be adapted when they return, thus offering our students the opportunity to spend 1 or 2 semesters in another European country without losing a semester.

In addition to the educational mobility program, our students can also benefit from the Erasmus Program for internships.



Academic Accumulation: Books of our Department Instructors

As the Department of Industrial Engineering, we are proud of the knowledge and experience of our academic staff. The books written by our professors in various fields shed light on industry practices as well as engineering education. These works provide valuable resources not only for our students but also for industry professionals and researchers. The rich academic knowledge of our department is further strengthened with these publications written by our professors and makes significant contributions to the education of our students. These books provide an in-depth understanding of the field of engineering by blending theoretical knowledge with practical applications.



Strong Steps to the Future: Our Graduates

**Ender K ksoy**

2017 Graduate

Sempa Pompa Makina A. .
Project Sales Engineer

After graduating from Istanbul University Vocational School of Mechanical Technologies, I transferred to IGU Faculty of Engineering and Architecture, Department of Industrial Engineering with DGS. Here, I received a good education under the leadership of our expert teachers in terms of knowledge and experience in their field. Currently, I am a project sales engineer for a company that manufactures pumps for industrial and building technologies, and I also own an engineering company. My teacher Kenan and our other teachers were preparing us for the market. What is important is not the school but the one-on-one consultancy provided by the educators to the students, the information conveyed to the students and the good dialogues. I would like to thank my valuable professors who teach our department courses and never waver in their support.

**Ramazan Y kıcı**

2019 Graduate

Turkish Airlines
Cargo Operations Specialist

I can feel the results of the Industrial Engineering education I graduated in 2019, and the benefits of the homework and projects I did, much better in the spring of 2023, approximately 4 years after my graduation. Throughout my education life, I learned many lessons from very valuable teachers that I was not sure of where I could use them in the future. Now I can see better that my Industrial Engineering education at IGU, the internships I did and the projects I created have made me a person with high optimization skills, who can detect deficiencies in processes and workflows, who always tries to keep himself good in terms of business ethics and ethics, who produces solutions and who explains new processes in detail. turned him into a process/business doctor who can build. Studies and group projects that I was encouraged to participate in throughout my university life; It increased my communication skills and helped me build faster, agile and understandable communication channels with my subordinates, superiors and teammates.

Strong Steps to the Future: Our Graduates



Cemil Erginyavuz

2021 Graduate

Taha Clothing / LC Waikiki

Capacity Planning Engineer

What I like most about my department is our academic program, basically what it teaches us is decision-making, that is, how we can make the right decision by using mathematics and analytical methods to solve real-life problems and ensure that these decisions are fulfilled and turned into action. I had the chance to put the theoretical education background I gained in the Department of Industrial Engineering into practice in my business life. I am currently working as a Capacity Planning Engineer at Taha Giyim/LC Waikiki.

I would like to inform our friends who want to choose Istanbul Gelişim University in the future how lucky they are. Our department has ABET accreditation, which only 7 of the universities in our country have. It is a special and prominent program for Industrial Engineering students.



Özge Demir

2022 Graduate

Türkiye Finans Katılım Bankası

Business analyst

From the moment I started working at Türkiye Finans Katılım Bankası, where I worked as a business analyst, I had the opportunity to take part in large projects. I see myself as someone who graduated from school but did not close the door to learning. The reason for this is what Istanbul Gelişim University and my valuable professors have contributed to me. I am very pleased and happy with where I am, thanks to the valuable knowledge and experience of my professors, the time they devoted to us throughout our engineering education, and the fact that they were always with us.

If I were to go back to the preference period again, I would choose Istanbul Gelişim University Industrial Engineering department in the same way. Both the attention of my teachers and the quality education I received are the main reasons for this. I can clearly say that I received a good academic education.



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Let's Learn
Together
Together
Let's explore

Let's Connect
to the World!

DEPARTMENT OF INDUSTRIAL ENGINEERING

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