

# Karadeniz Technical University ERASMUS+

## **TRAINEESHIP OFFERS**

## **OFFICE OF EXCHANGE PROGRAMMES**



### KARADENİZ TEKNİK ÜNİVERSİTESİ KARADENİZ TECHNICAL UNIVERSITY



## **About the University**

- Founded in 1955
  12 Faculties
- 6 Institutes
- 18 Application and Research Centers





## Where We Are Located & Regular Flights from and to Trabzon







## Accommodation

Depending on the dormitory's availability, incoming Erasmus+ students have the opportunity to stay in **KTU Koru Student Dormitory**, which is located in the center of the KTU main campus.

Students accepted for a traineeship position will receive further information about accommodation at KTU Koru Student Dormitory.





## Erasmus Student Network & ESN Trabzon

Erasmus Student Network is an international student organisation with many sections all across Europe. In KTU, we have our own section 'ESN Trabzon', which was founded by KTU Erasmus+ Office and is still active in coordination with the Office.

The main mission of ESNers (volunteer students who are members of ESN Trabzon) is to help our incoming students feel at home. They are always ready to help with formal procedures as well as everyday life matters. ESN Trabzon also organizes social events for incoming students and its own members.







## Erasmus Student Network Trabzon

## How to Apply

Students who wish to apply for an Erasmus+ traineeship at KTU should send an e-mail to the following e-mail address with the requested documents listed below:

- CV in English
- Confirmation letter from home university (proof of eligibility for Erasmus+ Programme)

The e-mail should include the following information:

- The department or center where the student wishes to have a traineeship (number of the offer)
- Suggested dates for the traineeship

**Responsible person for incoming Erasmus+ students:** Lecturer Onur AYDIN, ktu.iro.aydin@gmail.com



## **Assessment of Traineeship Applications**

- Once the application e-mail is received, the documents and information of the applicant is shared with relevant authorities in the departments/centers.
- The department/center decides whether to accept or decline the application.
- In case their applications are accepted, students will receive an e-mail from the KTU Erasmus+ Office with the acceptance letter and the guidebook about the application documents to be completed.







## **KTU Erasmus+ Office**

### Traineeship at the KTU Erasmus+ Office

For students in the fields of Languages, Cultural Studies, Social Sciences

- Main responsibilities of the trainee will include the following:
- Assisting International officers
- Preparing content for social media that will promote the Erasmus+ programme
- Preparing promotional materials/guidebooks
- Writing/editing materials/informative content
- Taking part in organisations/events for incoming/outgoing Erasmus+ students
- Organising social events (such as language clubs, cultural exchange meetings)
- Contributing to our team for promoting exchange studies





## **KTU Center for Strategic Research**

Traineeship at the KTU Center for Strategic Research

For students in the fields of Social Sciences, International Relations, Political Sciences

### The Center has the following working groups:

- Economic Research
- South Asia studies
- Urban, Management and Environmental Research
- Social and Cultural Research
- International Studies

### Main responsibilities of the trainee will include the following:

- Conducting research in one of the working groups
- Assisting center officers with office works such as documentation and archives, preparing content for web and social media
- Taking part in organisations/events in the Center
- Making collaborations with experts in research field
- Contributing to organisational work at the Center



## **KTU Medical Device Design and Production Center (METAM)**

**Traineeship at the KTU Medical Device Design and Production Center** For students in the fields of Engineering and/or Technology, Medical Sciences

METAM is an application and research center which focuses on ensuring domestic production of medical devices and equipment, revising them, and producing innovative designs and solutions for the medical technology sector.

There are currently three active projects in our center. Our center will be responsible for designing and producing the hardware and software of the medical devices for these projects. We'll design medical devices with embedded systems that can be remotely controlled using a mobile app. The wireless connection to the embedded systems will be established through either Bluetooth or Wi-Fi, depending on the project requirements. If you are interested in working with us, you can participate in developing the necessary mobile applications and APIs that will connect to the mobile applications.

The main responsibilities of the trainee will include the following:

- Assisting the manufacturing process of medical devices and parts using additive manufacturing and various machining processes.
- Contributing to various research and development projects by doing one or multiple of the following assignments: preparing mechanical drawings, preparation of electronic devices or circuits, preparing codes for the devices and/or preparing finite element analysis models.
- Doing scientific research and improving the process methods.



## KTU Drug and Pharmaceutical Technology Application and Research Center (ILAFAR)

Traineeship at the KTU Drug and Pharmaceutical Technology Application and Research Center (ILAFAR) For students in the fields of Biology, Biology-related sciences, Pharmaceutical sciences

ILAFAR is an application and research center which focuses on developing human, agricultural and veterinary pharmaceutical active ingredient formulations, and conducting high-tech research with preclinical R&D studies.

The main research areas in the Center are:

- Bioactive molecule isolation, analysis and characterization
- Biochemical method development and instrumental analysis
- Pharmacological activity and toxicity
- pharmaceutical biotechnology
- Formulation and biomaterial
- Innovative artificial intelligence applications



## **KTU Department of Industrial Engineering**

The department of Industrial Engineering is looking for Erasmus+ trainees.

For students in the fields of Industrialeringneering

Main responsibilities include:

- taking part in the ongoing projects of the department
- assisting the academic staff members

**Minimum Requirements:** 

- B1 level proficiency in English
- intermediate level proficiency in Matlab and/or Minitab
- knowledge of basic statistics

Minimum duration is 2 months. Longer stays may be possible. Available time period for the offer: September 2024– July 2025



## **KTU Graduate School of Black Sea Studies**

### Brief Information about KTU Graduate School of Black Sea Studies (KAREN)

Graduate School of Black Sea Studies (KAREN) is an institute/research centre aiming to carry out interdisciplinary research into the history, culture, geography of the Black Sea basin as well as its strategic, social, and economical structure. Being a significant centre second to the Mediterranean in antiquity, the Black Sea – along with its shores and its hinterlands – is a significant subject matter for a wide array of research fields. BA, MA, and PhD students who are interested in researching the Black Sea are welcome to apply for a traineeship with us.

### For students in the fields of Social Sciences, International Relations, Political Sciences

### **KTU KAREN** is seeking Erasmus+ trainees for the research areas listed below:

- -History of The Black Sea Basin
- -The Black Sea Basin in International Relations
- -Commercial Potential of the Black Sea
- -Security of the Black Sea in Regional Strategy

**Traineeship period:** January 2024 – December 2024



### **Brief Information on KTU Farabi Hospital**

Located in the northeast of Türkiye, in the city of Trabzon, Farabi Hospital of Karadeniz Technical University started its operations in 1980. Over the years, the hospital has managed to become the largest health facility in the Black Sea Region with its research and investments. KTU Farabi Hospital has a capacity of 831 beds and 92 intensive care beds, along with 124 professors, 44 associate professors, 75 faculty members, 24 lecturers, and 501 research assistants. The well-staffed and well-equipped KTU Farabi Hospital operates in 96 branches. In addition to its educational offer and research, the hospital offers healthcare and medical services to a growing number of people.

### **KTU Farabi Hospital is seeking Erasmus+ trainees for the areas listed below:**

 Adult Intensive Care / Chest Diseases / Adult Emergency / Paediatric Emergency / Orthopaedic Surgery / Family Medicine / Thoracic Surgery

### **Minimum requirements:**

Sufficient knowledge of English (CEFR B2) To be enrolled in the last 2 years of the curriculum

**Offer available for the following period:** 1 January 2024 – 31 December 2024



### **KTU Department of Russian Language and Literature**

The department of Russian Language and Literature is looking for Erasmus+ trainees.

Trainees will be able to carry out tasks such as:

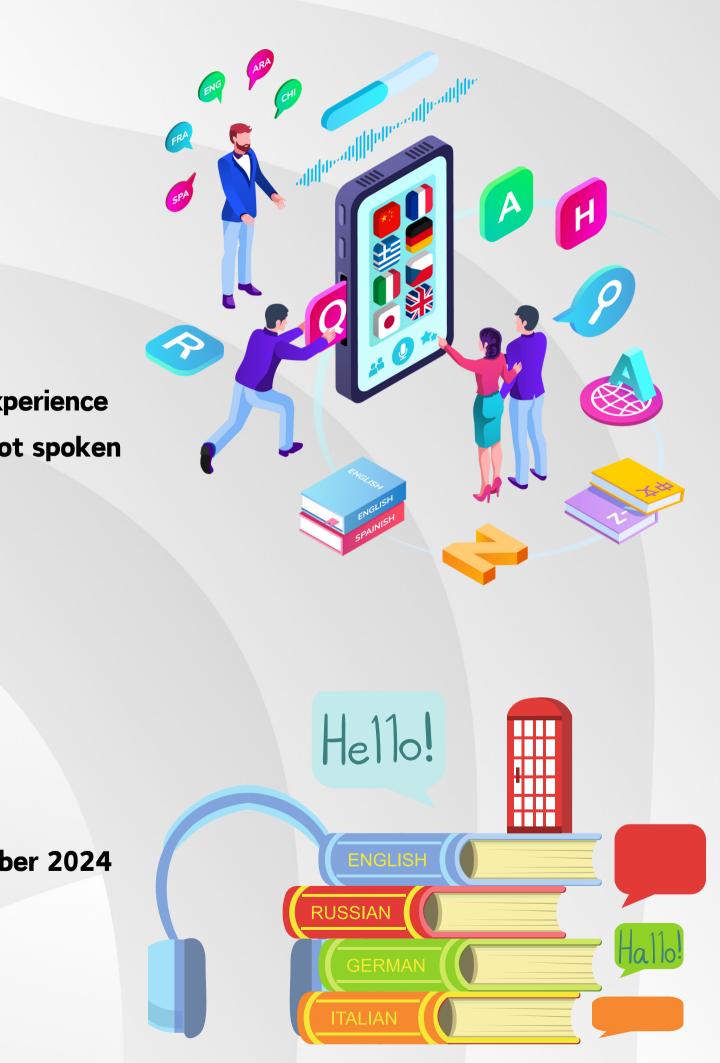
- Organise language study groups and speaking clubs where they will have teaching experience
- Learn about Teaching Russian as a Foreign Language in a country where Russian is not spoken
- Participate in social events organised by the Department such as drama club
- Conduct research in the field of Russian philology
- Conduct a literature review in a Russian philology related topic

**Minimum Requirements:** 

• B1 level proficiency in Russian

Minimum duration is 2 months. Longer stays may be possible.

Available time period for the offer: January 2024–July 2024 or September 2024–December 2024



### **Traineeship Offer - 9 Environmental Problems Application and Research Center**

### **Brief Information about the Center**

Environmental Problems A&R Center is a research centre focusing on the following aims:

- Developing interdisciplinary projects aimed at identifying and solving natural and built environment problems at regional, rural/urban scale
- Carrying out planning and design activities in the fields of environment and urbanism
- Coordinating cooperation with public institutions, municipalities and private organizations
- Contributing to the national and international literature with scientific research and applications in the field

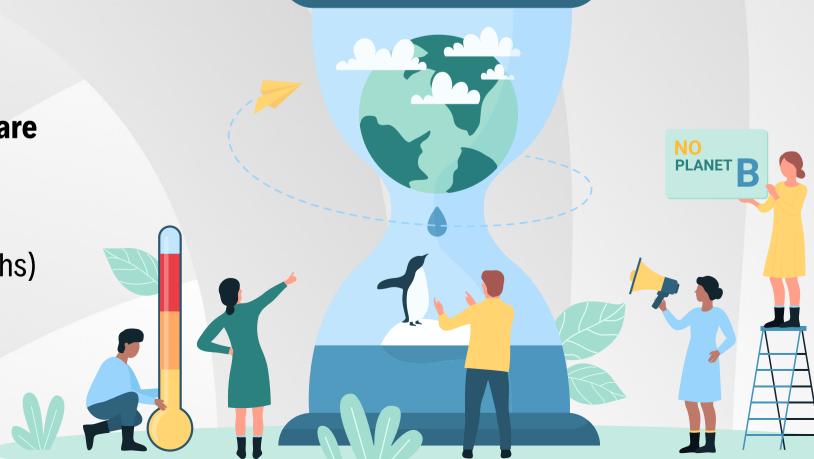
### For students in the fields of City and Regional Planning, Architecture, Environmental Engineer, Engineering, and Graphic Design

### The tasks of the trainees will include:

- Infographic and Data Visualization Designs for Sustainable Campus Studies
- Smart Campus Applications

### Specific requirements include competency in using digital tools and software such as AutoCAD, Photoshop, 3D, Infographic digital.

Accepted trainees are expected to carry out their traineeship (of minimum 2 months) from 1 July 2024 till 1 October 2024.



## **KTU Department of History**

The department of History is looking for Erasmus+ trainees. For students in the fields of History, Archaeology, and History of Arts

Trainees will be able to carry out tasks and conduct/assist research related to any of the following topics:

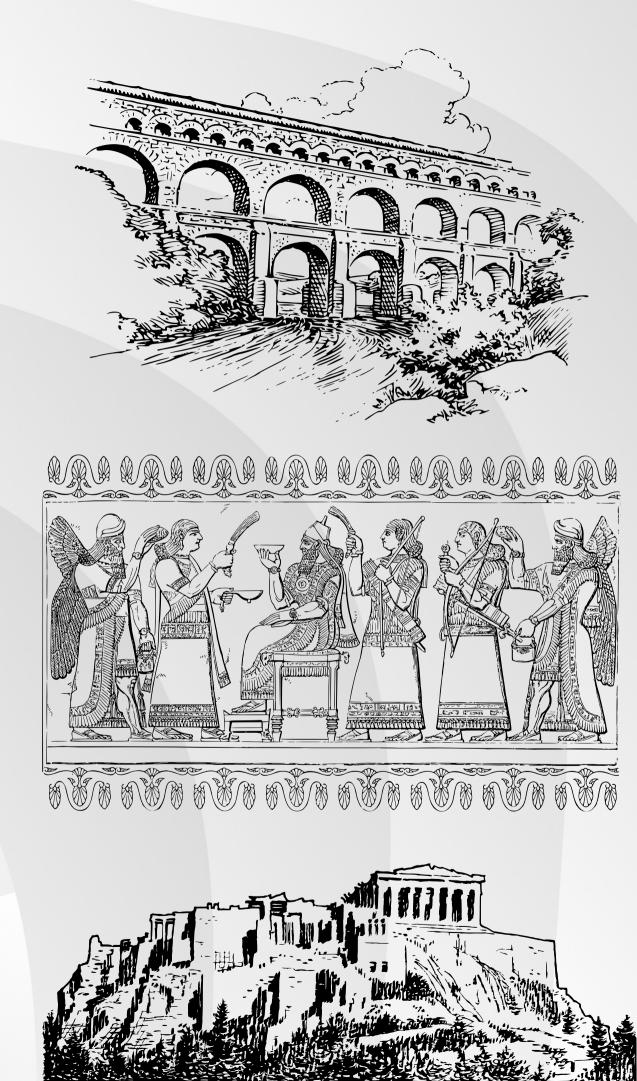
- The Later Roman Empire
- Contemporary Turkish Culture of History
- American Culture and History
- History of Orientalism
- History of Sports
- Oriental History
- Russian History
- Cultural Anthropology

**Minimum Requirements:** 

• B1 level proficiency in English

Minimum duration is 2 months.

Available time period for the offer: 1 September 2024 – 1 July 2025



## **KTU Department of Computer Engineering**

The department of Computer Engineering is looking for Erasmus+ trainees. For students in the fields of Computer Engineering

Trainees will be able to carry out tasks and conduct/assist research related to any of the following topics:

- Wireless Communications
- Wireless Networks
- Quantum Secure Communications
- Quantum Key Distribution
- Robotics

**Minimum Requirements:** 

- B2 level proficiency in English
- Proficiency in programming languages

Minimum duration is 2 months.

Available time period for the offer: 14 October 2024 - 28 June 2025



### **KTU Department of Molecular Biology and Genetics**

The department of Molecular Biology and Genetics is looking for Erasmus+ trainees. For students in the fields of Molecular Biology, Genetics, Biology, Biotechnology, Bioengineering, Medicine, Biochemistry

Trainees will be expected to join in epigenetics and cancer lab, biotechnology lab and molecular virology lab.

Plant-based studies in separate labs are also available.

**Minimum Requirements:** 

- B1 level proficiency in English
- Being familiar with rules and regulations about general laboratory use

Minimum duration is 2 months.

Available time period for the offer: 16 September 2024 - 14 June 2025



### Traineeship Offer – 13 Landslide Application and Research Center

### **Brief Information about the Center**

Established in 1989, the Center aims to conduct research and applications based on scientific basis at national and international level related to natural disasters (landslides, floods, floods, avalanches, rockfalls and similar) within the framework of the cooperation of the relevant departments and departments of the University within the scope of the provisions of the relevant legislation, to coordinate cooperation proposals from public institutions, municipalities and private organizations, and to carry out activities to inform and raise awareness of the public on this issue.

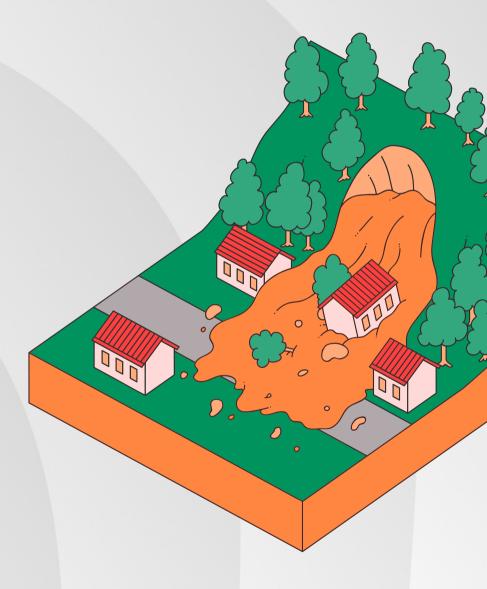
### For students in the fields of Geology, Geophysics, Forestry and Civil Engineering

### The tasks of the trainees will include:

- To carry out scientific and technical research studies on natural disasters, particularly mass movements
- To cooperate with organizations in Turkey and abroad on natural disasters
- To create an information center for the university and other organizations
- To conduct interdisciplinary research and application projects on related subjects
- To contribute to the enrichment of this environment by providing feedback of research and application results to the educational environment, contributing to the development of interdisciplinary educational opportunities
- To carry out scientific and technical activities, publishing reports, bulletins, projects, books, journals, etc. that explain scientific and technical data
- To contribute to the creation of a sustainable and critical environmental awareness and to support the formation of social awareness on related issues.

Trainees are expected to have B1 level proficiency in English.

Accepted trainees are expected to carry out their traineeship (of minimum 2 months) from 9 September 2024 till 20 December 2024.



### **Brief Information about the Center**

KTU TTM consists of 4 modules. The main activities carried out by our centre can be roughly listed as follows: \*Services to Benefit from National and International Programs: Providing guidance and consultancy to researchers, inventors, academic staff, entrepreneurs so that they can benefit from national and international project funds \*University – Industry Cooperation Services: Establishing & enhancing cooperation between the university and the industry, developing projects in which the university and the industry collaborate, Contributing to the R&D oriented information and production needs

\* Intellectual and Industrial Property Rights: Ensuring the protection, marketing and commercialization of Intellectual and Industrial Property Rights, Guiding the process of obtaining patent for groundbreaking ideas/utility models \*Entrepreneurship and Corporate Services: Establishing and developing entrepreneurial culture, providing venture capital support, incubation center, business guidance, consulting and training services, Offering assistance in the fields of entrepreneurship and corporatization

For students who study in a programme relevant to any of the activities listed above.

### The tasks of the trainees will include:

- Follow-up and announcement of current/open calls for projects and grants related to international funding programmes
- Provide administrative support services for the monitoring and implementation of projects submitted to and accepted by international research funding bodies
- Provide administrative support services for international patent procedures
- Announcing and promoting the activities of the TTM to international students

Trainees are expected to have at least B1 level proficiency in English and competency in Microsoft Office.

Traineeships can be carried out in the following period: February 2024 – December 2025



### **Brief Information about the Center**

The mission of DE-YAS is to produce information and technology through R&D studies on preventing and/or reducing the risks and damages caused by earthquakes or natural disasters in engineering structures, and to present and disseminate them for the benefit of society; to train qualified human resources who are open to change and development; to carry out and manage the training, informing and awareness-raising activities of practitioners; to organize scientific meetings such as conferences, congresses and symposiums at national and international levels; providing consultancy and project services.

De-YAS, Earthquake and Structural Health Monitoring Working Groups include disaster management and risk reduction, debris and waste management, early warning, damage assessment, urban transformation and spatial planning, existing building evaluation, repair-reinforcement, historical and cultural heritage, remote sensing. It carries out studies in areas such as building inventory, structure-soil interaction, new building technologies, earth sciences, dams, bridges, optimum sensor placement planning, sensor technologies, historical buildings, data storage classification and management, artificial intelligence, innovative algorithm development and high-rise buildings.

### For students who study in a programme relevant to any of the activities listed above.

Trainees are expected to meet the following requirements:

- Having knowledge about software used in the field of earthquake engineering, structural dynamics, and monitoring structural health
- Competence in such software (at least beginner or intermediate level)

Traineeships can be carried out in the following period: **April 2024 – December 2024** 

## Traineeship Offer - 16 Civil Engineering Department / Structural Health Laboratory

In the Structural Health Monitoring Laboratory, which was established within Civil Engineering Department of Karadeniz Technical University in 2019 and actively conducts experimental studies, both element-based (columns, beams, wall elements or wood, concrete, steel samples, etc.) and system/structure-based (scale frame systems, bridges, etc.). Experimental studies are carried out on models such as dams, buildings, mosques, minarets, etc.

### Information about the main experimental studies carried out within the laboratory is as follows:

- Experimental Modal Analysis Tests Environmental and Forced Experimental Modal Analysis Tests (with wired and wireless accelerometers and shakers with 10V/g sensitivity) can be carried out to determine the dynamic characteristics (frequency, damping ratio and mode shape) of scaled laboratory models and real structures with non-destructive experimental methods.
- Shaking Table Experiments It has 4 x 4 m dimensions, can move in a single axis direction, can reach a speed of 628 mm/sec and make +/-40 cm displacement, operates in the frequency range of 0.1–50 Hz and can resist 2000 kNm overturning moment, has a dynamic horizontal force capacity of 500 kN on a single axis and with the shaking table with a vertical load capacity of 350 kN, the structural behavior of all scaled structures and soils can be simulated under real earthquake records.
- Fire and High Temperature Tests In order to evaluate the structural behavior of structures exposed to fire or high temperature effects, a car-based furnace with dimensions of 2 x 1.5 x 2 m, a capacity of 6 m3 and a maximum temperature of 1200 degree of Celsius serves. Fire and temperature tests of many industrial products and materials are performed and annealing, stress relieving, pre-forging heating, normalization, tempering, etc.

The tested structures are supported in the computer environment with finite element model analyses. In addition, tests can be carried out to determine whether all kinds of machines, tools and items exposed to vibrations with different cycles will be damaged up to the expected life value as a result of the accelerated application of the vibrations they will encounter throughout their life cycle.

For students who study in a programme relevant to any of the activities listed above. Trainees are expected to meet the following requirements:

- Having knowledge about software used in the field of earthquake engineering, structural dynamics, and monitoring structural health
- Competence in such software (at least beginner or intermediate level)

Traineeships can be carried out in the following period: April 2024 – December 2024



### **KTU Department of International Relations**

The department of International Relations is looking for Erasmus+ trainees. For students in the fields of International Relations and Political Sciences

Trainees will be expected to:

- Conducting /assisting research related to any topics in the field of international relations
- Taking part in the ongoing projects/organisations/events of the department
- Carrying out the tasks and assisting the academic staff/members

**Minimum Requirements:** 

• B2 level proficiency in English

Minimum duration is 2 months.

Available time period for the offer: April 2024 - December 2025



### **KTU Department of Electronics and Electrical Engineering**

The department of Electronics and Electrical Engineering is looking for Erasmus+ trainees. For students in the fields of electrical engineering

Trainees will be expected to:

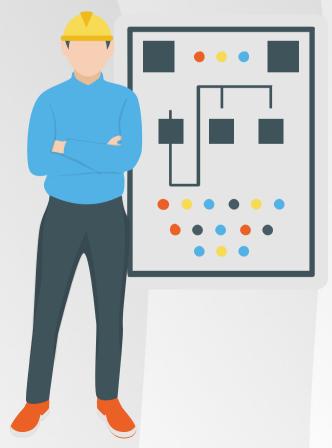
- Robot Vision and Autonomous Systems
- Research and modeling of power converters applied to Plug-In Hybrids (PHEV) or Battery Electric Vehicles (BEV)
- State-of-art research on power converter topologies applied to automotive applications (traction inverter, AC and DC chargers, rectifiers, ...)
- Study and create power converter models, apply to vehicle model using computer software (MATLAB, PSIM, ...)
- Research and simulation of power converter topologies

**Minimum Requirements:** 

- B2 level proficiency in English
- Python or Matlab for Robot Vision and Autonomous Systems Research
- Matlab and PSIM for Power Converter and Electric Vehicles Research

Minimum duration is 2 months.

Available time period for the offer: April 2024 – July 2024



## **KTU Department of Forest Engineering**

The department of Forest Engineering is looking for Erasmus+ trainees. For students in the fields of forest engineering

Trainees will be able to carry out a traineeship in the following fields:

Forest Management, Forest Mensuration, Remote Sensing Applications in Forestry, GIS Applications in Forestry, Linear Programming Applications in Forestry, Forest Growth and Yield, Wildfire, Forest Entomology and Forest Conservation, Forest Soil and Ecology, Forest Botany, Watershed Management, Silviculture, Forest Economics, Forest Policy and Governence, Forest Engineering, Transportation, Operational Planning, Timber Extraction

Minimum duration is 2 months.

Available time period for the offer: July 2024 - September 2024



## **KTU Department of Biology**

The department of Biology is looking for Erasmus+ trainees. For students in the field of biology and biology-related sciences

### Trainees will be expected to:

- Plant Diversity
- Animal Diversity
- Plant Physiology and Biochemistry
- Animal Behavior and Ecology
- Molecular Biology
- Microbiology Hidrobiology

**Minimum Requirements:** 

• B1 level proficiency in English

Minimum duration is 2 months.

Available time period for the offer: October 2024 - September 2025





Visit our official web page:

www.ktu.edu.tr/ofinafen

For further information: Lect. Onur AYDIN Responsible person for incoming Erasmus+ students ktu.iro.aydin@gmail.com







