# **Civil Engineering**

Department of Civil Engineering is one of the first sections that make up the core of the Sakarya University. It was initially opened under the Vocational School of Engineering and Architecture founded in 1970.

This School, afterwards, has developed into Department of Civil and Mechanical Engineering and Sakarya State Engineering and Architecture Academy in 1972. Sakarya University was established by a law enacted on July 3, 1992. The department, then, has taken place within the Faculty of Engineering affiliated to the university.



## The Mission of Department of Civil Eng.

Our departmental mission is to produce information and train environmentally conscious students who design civil engineering systems, analysis, implement, evaluate and review the results, take responsibility, respect professional and ethical values, do research, and share policy with the knowledge and confidence. We aim at the students having the principle to be integrated with industry and others with a strong social aspect.







# The Vision of Department of Civil Engineering

Our vision is to become a department to transform science and technology for the benefit of humanity and our country, provide a top-level research and educational environment through which the students are equipped with contemporary knowledge and trained so that they have the qualifications of research methodology and ability along with the leadership to compete in the international arena by supporting the national and universal values.



#### **Contact**

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# Institute of Natural Sciences Civil Engineering

**Graduate Studies** 













"Civil Engineers construct the civilization"

#### Construction Discipline

The aim of the construction discipline is teaching researchers and engineers as having the ability of understanding real



behavior of structures and proposing unique analytical and practical solutions in the field. Working areas:

- Design of RC and steel structures
- Earthquake engineering
- Soil-structure interaction

## **Hvdraulic Discipline**

of The aim the hydraulic discipline is teaching researchers engineers and having the ability of designing clean and waste water supply



# networks.

# Working areas:

- Hydraulic engineering
- Water supply networks
- Environmental health

## Staff of the construction discipline

Prof. Dr. Muzaffer ELMAS

Prof. Dr. Naci ÇAĞLAR

Prof. Dr. Erkan CELEBİ

Asst. Prof. Dr. Elif AĞCAKOCA Asst. Prof. Dr. Hüseyin KASAP

Asst. Prof. Dr. Muhammed Zeki ÖZYURT

Asst. Prof. Dr. Necati MERT

Asst. Prof. Dr. Zeki ÖZCAN Asst. Prof. Dr. Hakan ÖZTÜRK

Asst. Prof. Dr. Avdın DEMİR

Asst. Prof. Dr. Zevnep YAMAN

#### **Transportation Discipline**

The aim of the transportation discipline is teaching researchers and engineers as having the ability of designing all



transportation systems such as highways. railways and airports.

### Working areas:

- Highway and railway engineering
- Design of airports
- Traffic engineering

#### **Geotechnical Discipline**

The aim of the geotechnical discipline is teaching researchers and engineers as having ability the understanding real



behavior of soils.

# Working areas:

- Geotechnical EO engineering
- Advanced soil mechanic and foundation eng.
- Landslides, numerical modelling

# Staff of the hydraulic discipline

Prof. Dr. Emrah DOĞAN

Asst. Prof. Dr. Mehmet SANDALCI Asst. Prof. Dr. Osman SÖNMEZ

# Staff of the transportation discipline

Prof. Dr. Hakan GÜLER Asst. Prof. Dr. İrfan PAMUK Asst. Prof. Dr. Hakan ASLAN

# Staff of the const. management discipline

Asst. Prof. Dr. İsmail Hakkı DEMIR Dr. Esra Eken DOBRUCALI

the aim of

Construction Materials Discipline

The construction materials discipline is teaching researchers and engineers as having the ability of understanding real



behavior of construction materials Working areas:

- Durability and insulation of structures
- Advanced concrete technologies
- Concrete admixture materials
- Evaluation of Waste Materials as Construction Material

# **Construction Management Discipline**

of The aim the construction managements discipline is teaching researchers and engineers as having the ability managing



construction processes. Working areas:

- Project management
- Cost analysis and project timeline mang.
- Health and safety

# Staff of the geotechnical discipline

Assoc. Prof. Dr. Askın ÖZOCAK Assoc. Prof. Dr. Ertan BOL Assoc. Prof. Dr. Sedat SERT

#### Staff of the construction materials discipline

Prof. Dr. Kemalettin YILMAZ Assoc, Prof. Dr. Mehmet EMİROĞLU

## **Department of Civil Engineering Laboratory Studies**

- Modeling, numerical analysis and design of earthquake resistant structures.
- Experience gained from earthquake damage detection studies and strengthening of damaged structures.
- Measurement of railway traffic vibrations and mitigation on site.
- Numerical analysis of problems related to soil engineering and dynamics.
- Field measurements and laboratory experiments.
- Flood modeling and risk management.
- Large-scale vibratory table test device and measuring devices.
- One-way impact load generating testing apparatus and measuring devices.
- Instruments used for measuring structural and environmental vibrations
- Software used in modeling and analysis of geotechnical problems.
- Software used in the analysis of seismic performance of structures.

# Structural Mechanic and Earthquake laboratory

<u>Laboratory Coordinator:</u> Asisst. Prof. Üyesi Hakan ÖZTÜRK (Earthquake) Asisst. Prof. Elif Ağcakoca (Construction)

Equipments:

Bending Test Frame Impact Test Frame Wall Test Frame One Directional (SDOF) Shake Table 6 Directional (MDOF) Shake Table





### **Geotechnical Laboratory**

<u>Laboratory Coordinator:</u> Assoc. Prof. Dr. Sedat SERT <u>Equipments:</u>

- -Casagrande Device
- -Fall Cone Test Device
- -Hvdrometer
- -Water Content Measuring Device
- -Consolidation Test Device
- -Los Angeles Test Device
- -Point Load Test Device
- -CBR Test Device
- Triaxial Shear Test Device
- -Shear Box Test Device
- Dynamic Triaxial Shear Test Device
- SCPTU-Seismic Cone Penetration



Fall Cone Test Device



Seismic Cone Penetration

# **Hydraulic Laboratory**

<u>Laboratory Coordinator:</u> Prof. Dr. Emrah DOĞAN Equipments:

- Open Channel Test System
- -Water Head Loss Device
- Sediment Measuring Device
- Water Hammer Tester
- -Hydrology Apparatus
- -Reynolds Device
- Cavitation Apparatus
- -Water Jet Device



Water Head Loss Device



Open Channel Test System

## **Construction Materials Laboratory**

<u>Laboratary Coordinator:</u>Prof. Dr. Kemalettin YILMAZ <u>Equipments:</u>

- -Flexural Test Device
- -Pressure Test Device
- -Concrete Mixer
- -Aggregate Sieve Sets
- -Drying Oven
- -Cement Mixer



Flexural Test Device



Pressure Test Device