



# ISTANBUL TECHNICAL UNIVERSITY Department of Meteorology Engineering

#### History of ITU



1773 Mühendishane-i Bahr-i Hümayun



1909 Mühendis ve Mimarlar Mekteb-i Alisi

1944 Yüksek Mühendis Mektebi







1795 Mühendishane-i Berr-i Hümayun



1914 İlk Mühendis mezunlar



1970 Ayazağa Main Campus



1974
Bachelor and Master education with 2 levels



2013 240th year







Taşkışla Campus
Faculty of Architecture
Social Sciences Institute

#### **Ayazaga Main Campus**

Faculty of Civil Engineering

Faculty of Electricity - Electronics
Faculty of Mining
Faculty of Chemistry and Metallurgy
Faculty of Computer and Informatics
Faculty of Arts and Sciences
Faculty of Naval Architecture and Marine Sciences
Faculty of Aeronautics and Astronautics

Energy Institute
Graduate School of Natural and Applied Sciences
Institute of Social Sciences
Institute of Informatics
Eurasia Institute of Earth Sciences
Earthquake Engineering and Disaster Management
Institute



Macka Campus
Faculty of Management
School of Foreign Languages
Conservatory



Gümüşsuyu Campus

Faculty of Machinery
Faculty of Textile Technologies and
Design



Tuzla Campus
Maritime Faculty







2,174 Academic Members

- 99 undergraduate programs, 25395 students
- 179 postgraduate (Master's, PhD) programs, 10132 students
- 6 Graduate Education and Research Institutes
- 130000 graduates



| UNIVERSITY                   | COUNTRY | Number of accredited programs |
|------------------------------|---------|-------------------------------|
| İstanbul Teknik Üniversitesi | Turkey  | <b>25</b>                     |





# ISTANBUL TECHNICAL UNIVERSITY

# DEPARTMENT OF METEOROLOGICAL ENGINEERING

#### DEPARTMENT OF METEOROLOGICAL ENGINEERING



Meteorological Engineering Department is the "first" department in the field of atmospheric sciences and meteorological engineering in Turkey, aiming to train engineers who can work using the most advanced technologies in weather analysis and forecasting, climate change, air pollution, solar and wind energy, hydrology, agro-meteorology, atmospheric physics. .

As an attractive center of excellence sought internationally in the fields of education and research; The main purpose of the department is to understand, explain and predict the atmosphere, atmospheric systems and the events occurring in the atmosphere.







#### DEPARTMENT OF METEOROLOGICAL ENGINEERING



Prof. Dr. Sevinç Asilhan

Prof. Dr. Mikdat Kadıoğlu

Prof. Dr. Zerefşan Kaymaz

Prof. Dr. Kasım Koçak

Prof. Dr. Ş. Sibel Menteş

Prof. Dr. Ahmet D. Şahin

Prof. Dr. Levent Şaylan

Prof. Yurdanur S. Ünal

Prof. Dr. H. Sema Topçu

Prof. Dr. Ali Deniz

Prof. Dr. Hüseyin Toros

**Academic staff** 

Doç. Dr. Barış Önol

Doç. Dr. Ahmet Öztopal

Doç. Dr. Barış Çaldağ

Dr. Ceyhan Kahya

Dr. Deniz Demirhan

Öğr. Gör. Emine Ceren Eyigüler

RA. Dr. Elçin Tan

RA. Dr. Filiz T. Katırcıoğlu

RA. Melek Akın

RA. Nilcan Altınbaş

RA. Deniz H. Diren Üstün

RA. Nida Çiftci

RA. Cemre Sonuç

RA. Ali Osman Mut

RA. Sena Ecem Yakut

RA. M. Barış Kelebek

RA. Pelin Erdemir



#### **Meteorological Engineering Main Courses**

- Introduction to Atmospheric Sciences
- Meteorological Instruments and Observation Procedures
- Hydrology
- Atmospheric Thermodynamics
- Climatology
- Solar and Ground Radiation
- Atmosphere Dynamics
- Weather Analysis and Forecasting
- Data Analysis
- Remote Sensing
- Cloud and Rainfall Physics
- Aviation Meteorology
- Micrometeorology



- Graduates receive the title of "Meteorological Engineer".
- If students want and meet the necessary conditions, they can graduate with 2 diplomas by completing the Double Major Program in other engineering departments in ITU.
- If the students meet the necessary conditions for the minor program, they can take the basic courses of an engineering program they want and graduate with a minor certificate.
- Erasmus programme
- Horizontal transfer possibility between programs

#### DEPARTMENT OF METEOROLOGICAL ENGINEERING

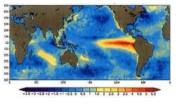


#### Research Areas

- Agriculture and forest meteorology
- · Weather analysis, forecasting and modeling
- Atmospheric radiation and atmospheric boundary layer
- Solar-climate system interaction
- Climate change and climate modeling
- Atmosphere-ocean interaction
- · Solar and wind energy
- Micrometeorology mesometeorology
- Cloud and precipitation physics
- · Air pollution and its modeling
- · Stratospheric ozone
- · Chaos and non-linear dynamics applications
- Hydrology hydrometeorology
- Water resources, their development and operation
- Flood storm avalanche drought analysis
- Architectural meteorology urban meteorology
- Biometeorology medical meteorology
- Flight sea satellite meteorology
- Military meteorology
- Upper atmosphere Ionosphere Magnetosphere physics











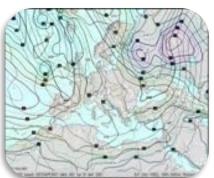




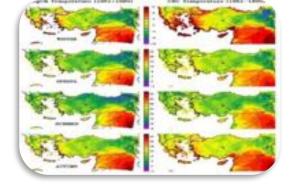
# **Synoptic Meteorology Laboratory and Briefing Room**

- Climate modelling
- Analysis of model results
- Weather forecasting studies













# Meteorology Observation Park

# **Meteorology Instruments and Observation Procedures Laboratory**

- Measurement and evaluation of atmospheric parameters
- agricultural meteorology mini-test field













# **Upper Atmosphere and Space Weather Laboratory**

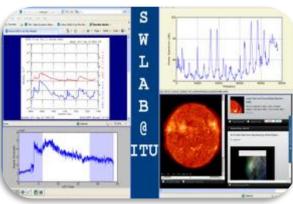
- Measurements of ionospheric parameters,
- earth magnetic field and electric field
- making solar observations















Thank you!