SUSTAINABLE DEVELOPMENT GOALS

SUSTAINABILITY REPORT

2020

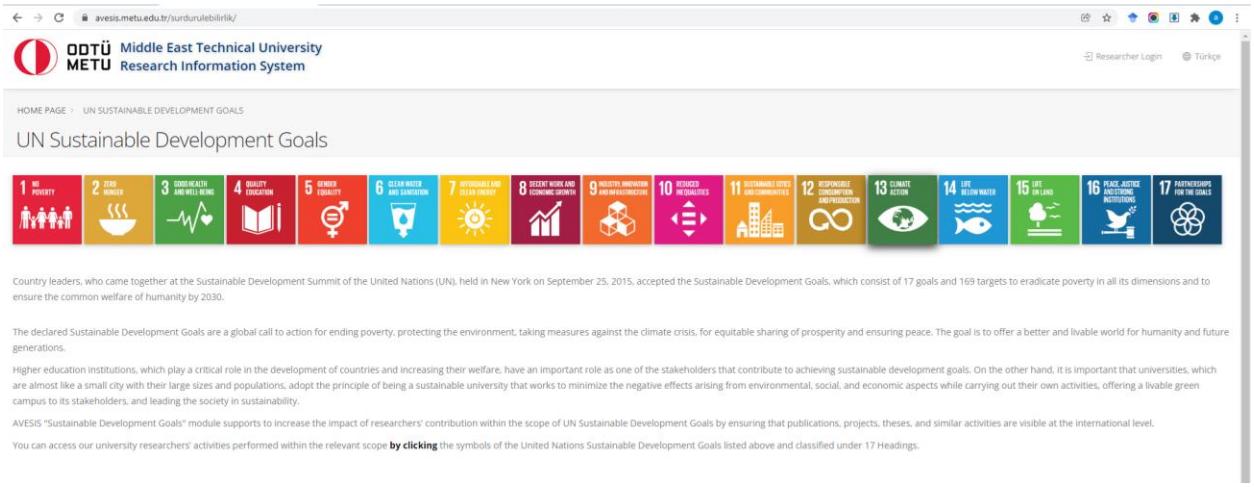
MIDDLE EAST TECHNICAL UNIVERSITY

The United Nations' 17 Sustainable Development Goals (SDGs) are at the heart of the 2030 Agenda for Sustainable Development adopted by all United Nations Member States in 2015. They are the blueprint for all developed and developing countries to tackle the global challenges, starting from ending poverty and eliminating all deprivations, providing equal access to resources by all, spurring economic growth fighting climate change and preserving the land and the sea.

Universities have a unique role in creating and disseminating knowledge, yet as one of the leading universities in Turkey, METU extends its mission to cover community service as well as education and research. The true societal impact of a university lies where these three mission components intersect and overlap. METU aims to fulfill all SDGs through research, teaching and outreach activities, sustainable campus operations and collaborations with the stakeholders.

Middle East Technical University in Turkey is setting the example by putting sustainability at the core of the institution. In fact, just recently, METU established a Sustainable Campus Executive Board and in December 2020 introduced the METU sustainability website (http://sustainablecampus.metu.edu.tr/en) along with the University's first ever Sustainability Report.

In addition,"Sustainable Development Module" was added to Research Information System (AVESİS) as a platform to improve the impact level and international visibility of activities such as publications, projects, and theses conducted by METU's researchers, in relation to SDGs.



METU Avesis Sustainability Module can be accessed at: https://avesis.metu.edu.tr/surdurulebilirlik/

End Poverty in all of its Forms Everywhere

https://sdgs.un.org/goals/goal1

COMMUNITY SUPPORT

METU assists the start-up of sustainable businesses, in local and national scale, through relevant education or resources (e.g. mentorship programmes, training workshops) offered by METU Teknokent. (http://odtuteknokent.com.tr/tr/programlar/girisimcilik)

STUDENT SUPPORT

In Turkey, the existence of a centralized selection and admission system (https://www.osym.gov.tr/) does not allow the universities to specifically target to admit low household income groups for undergraduate education. For admission to graduate programs, the selection is based on academic qualities rather than background. The selection and admission processes are carried out transparently.

METU "ACADEMIC FREEDOM, INTEGRITY, INCLUSIVENESS and EQUALITY" Policy ensures the inclusion of low income students by monitoring "the acceptance, success and completion rates of those students from the lower quartile income groups, people with disability, and other disadvantaged groups and continue financial and other support (such as mentorship and advisership) for their education," and taking "affirmative action in application and acceptance of international students from low and middle low income countries." (http://sustainablecampus.metu.edu.tr/en/policies)

In Turkey, public universities are free of charge for undergraduate study. However, universities can support students from low income groups after admission through a number of scholarships and financial support, such as for food and housing.

Scholarship opportunities are listed in the following link: https://adayogrenci.metu.edu.tr/ankara/burs-olanaklari

Financial support for students of Turkish Nationality are listed here: http://oidb.metu.edu.tr/en/node/266

The **Directive for Scholarship and Financial Support** is made public in the following link (in Turkish): https://oidb.metu.edu.tr/orta-dogu-teknik-universitesi-burs-ve-yardim-yonergesi

In addition to food and housing support, transportation within the campus is offered free and on a regular basis. For public transport, Ankara Metropolitan Municipality offers student discounts in subway and bus services: https://www.ankara.bel.tr/haberler/ogrenci-dostu-buyuksehir

For international students, Tuition Fee Exemption and other scholarships and supports are shared at https://iso.metu.edu.tr/en/scholarship-opportunities/

End hunger, achieve food security and improved nutrition and promote sustainable agriculture

https://sdgs.un.org/goals/goal2

HUNGER ON CAMPUS

METU offers a variety of food options for students and staff. The meals are offered at low prices, as low as 2,5 TL per meal (https://kafeterya.metu.edu.tr/index.php?sayfa=fiyatlar&durum=tabldotfiyat) in university operated cafeteria. For low income students, food support is also available.

- In 2019, 1,350 students received 783,000 TL
- In 2020, 1,343 students received 778.940 TL

The daily menu is announced at https://kafeterya.metu.edu.tr, with price and nutrition information in order to help students maintain a health and well-balanced diet. Vegan and vegetarian food options are also included.

Food purchases are made in accordance with the Public Procurement Law (No. 4734) and Turkish Food Codex Regulation, as well as relevant Turkish Standards Institution (TSE) Standards. All suppliers are required to fulfill ISO 22000 standards. Purchases prioritize local sustainable suppliers, as allowed by legal and technical restrictions.

OUTREACH

In 2019, two significant projects were continued in relation to food security:

- **Evaluation of Water/Energy Nexus in Sakarya Basin Turkey** (https://avesis.metu.edu.tr/yayin/f6fedac2-a442-47ef-b4ed-330ab8dbff3d/evaluation-of-water-energy-nexus-in-sakarya-river-basin-turkey)
- **The Effect of Climate Change on Food Safety in the Production of Green Leaf Vegetable Foods**

METU Sustainable Food Policy
METU also commits to ensure to provision of affordable, nutritious, and healthy food choices (including vegan and vegetarian menus) across all the outlets.
By revising its procurement guidelines, METU is also committed to ensure all food consumed within the Campus, to the extent possible within the budgetary constraints, is produced using sustainable methods (whether from sea or land, including the conditions of the workforce who are involved in the production) and from the local producers. This commitment extends to all outlets (including those owned by the third party sellers) and to suppliers.
(accessible at: http://sustainablecampus.metu.edu.tr/en/policies)

Ensure healthy lives and promote well-being for all at all ages

https://sdgs.un.org/goals/goal3

HEALTH ON CAMPUS

Sports facilities

METU sports facilities (gymnasium and pool) are shared on a **paid** basis with the public (http://spormd.metu.edu.tr/en/)

Pool membership for guests: https://hm.metu.edu.tr/en/guest-member

METU Gymnasium: https://www.metu.edu.tr/sports-facilities

Lake Eymir presents a recreational and sports area for the local community, entrance is **free** and open for all visitors.

Mental health support
METU Medical Center offers free mental health support for students. https://srm.metu.edu.tr/en
METU Clinical Psychology Unit offers psychological evaluation and psychotherapy services to students on a paid basis (https://ayna.metu.edu.tr/hizmetler)

METU Smoking Policy

Every member of the METU community is expected to make responsible choices regarding tobacco smoking. The smoking can affect individuals and those around with detrimental consequences. At METU, we expect from everyone to engage and contribute a healthy and safe educational environment that plays a key role in supporting each student to reach their full academic potential. We value the health and well-being of every member of our community.

METU commits to the fulfilment of its obligations regarding the implementation of prohibitions and taking institutional measures in accordance with the Law on the Prevention of Harms of Tobacco Products (4207/2008) (http://sustainablecampus.metu.edu.tr/en/policies)**.**

HEALTH OUTREACH
Current collaborations with health institutions
Collaboration regarding development and commercialization of innovative health products and projects, https://www.baskent.edu.tr/tr/haberler/saglik-ve-egitim/turkiyenin-onde-gelen-universitelerinden-odtu-ve-baskent-saglik-sektoru-icin-ortak-hareket-edecek/5 with Başkent University Hospital.

“New Openings in the Medical Device Industry” in collaboration with the Ministry of Health, Turkish Pharmaceuticals and Medical Devices Institution
https://www.titck.gov.tr/haber/tibbi-cihaz-sektorunde-yeni-acilimlar-toplantisi-25112019163433

Health outreach programmes

METU Community engages in various sorts of ad hoc and programmed outreach programmes and projects in the local community to improve health and wellbeing in the wider community. Ad hoc programmes include faculty participation in and organization of seminars on nutrition, sports, exercise, and other health and well-being related topics. Programmed activities include annual student society events, student volunteering programmes listed below:

- Information on how to communicate to individuals with leukemia, autism, down syndrome, and cerebral palsy LODOS Student Society (http://lodostoplulugu.com/)
- Talking About Disability METU without Disability Student Society (https://eot.metu.edu.tr/)

Ensure inclusive and equitable quality education and promote lifelong learning opportunities for all

https://sdgs.un.org/goals/goal4

OUTREACH

Lifelong learning access policy

METU Strategy Plan Objective 12 concerns the sharing of METU's accumulation of knowledge and experience for the wider community's benefit. This involves making public activities widespread, and accessible for all regardless of gender, race and income level (Strategic Goal 12.1) and creating free online content accessible by all (Strategic Goal 12.3).

METU Strategic Plan is accessible at http://sp.metu.edu.tr/system/files/odtu_sp_2018_11_01.pdf

OPEN METU

Institutional academic archives are structures that enable universities to compile, store and protect their knowledge resources on a digital platform, allowing open access in line with copyright laws and international standards. These structures enable institutions to manage their own knowledge resources, evaluate their potential, and contribute towards interdisciplinary studies by increasing academic visibility.

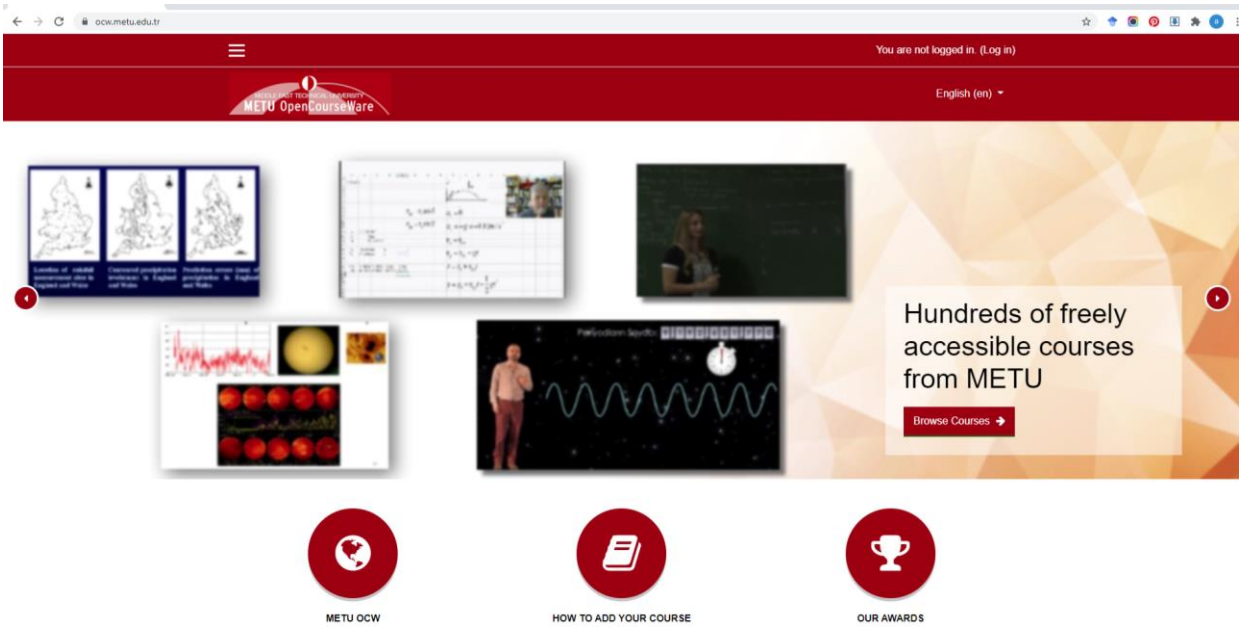
Allowing researchers open access to the scientific knowledge produced by others, within an ethical framework, is of great importance for scientific progression. The open access system is a structure that supports and facilitates one of the primary purposes of universities: the provision on national and international platforms of new products and services resulting from their research. OpenMETU, created within this scope, aims to provide Internet access to the scientific information produced by METU, without any financial, legal or technical obstacles.

The METU postgraduate electronic thesis archive has provided open, digital access to all postgraduate and doctoral theses completed since its launch in 2003 by the Department of Library and Documentation. The METU postgraduate electronic thesis archive system is the first open access system in our country. OpenMETU, enriched with its research data, software products, articles, book chapters, conference papers and presentations, is built on this structure.

https://open.metu.edu.tr/about

Open Courseware

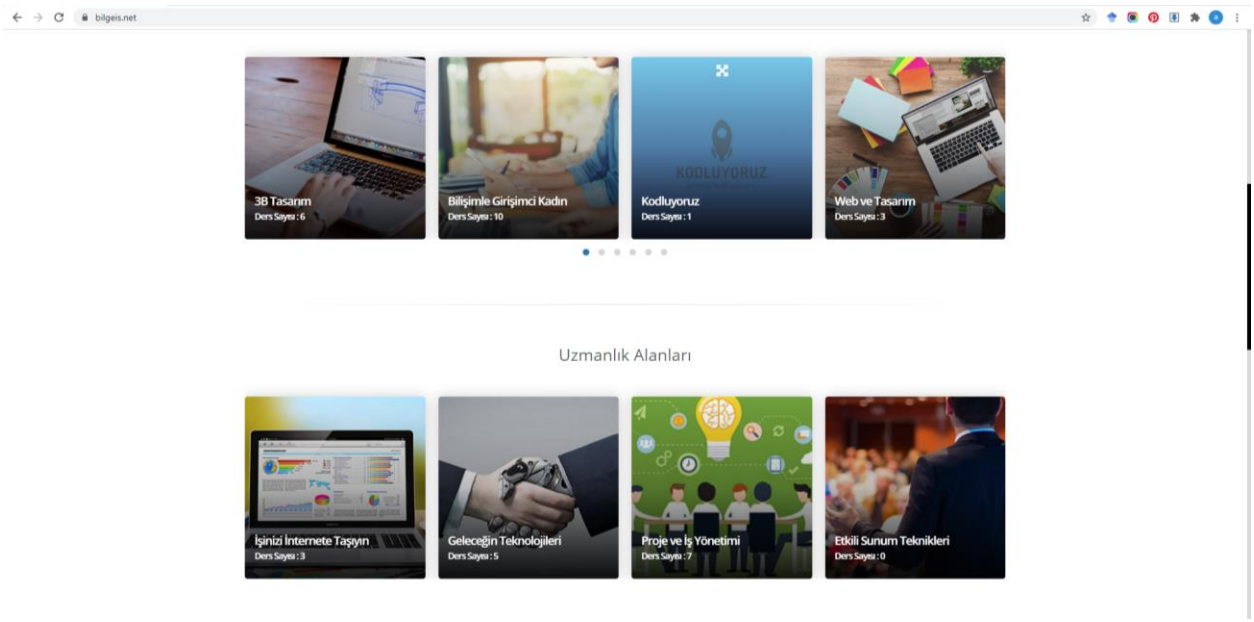
METU offers free online courses under a number of headings. Courses are available at https://www.youtube.com/c/METUOpenCourseWare/playlists free of charge.



Screenshot from https://ocw.metu.edu.tr/

Bilge İş Project

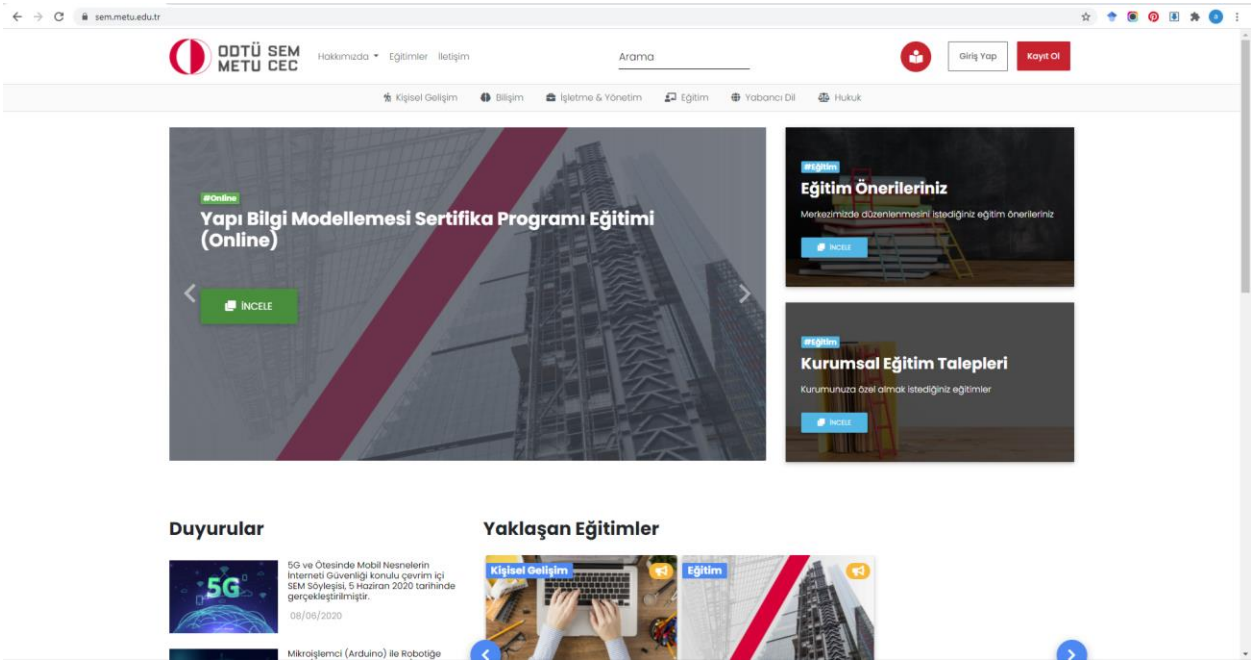
Bilge İş is a self-paced learning platform implemented with support from the European Union and the Republic of Turkey. As of October 17, 2017 the project has been successfully completed and currently continues to offer online courses. By the beginning of 2020, there were 162 thousand registered users to the platform, and a total of 101 thousand electronic certificates are awarded to those who successfully complete the modules.



Screenshot from https://bilgeis.net

Public events (lifelong learning)

The development of technology and the rapidly increasing accumulation of knowledge bring along the need for trained manpower who can use and direct this technology and information and make forward-looking predictions. Taking this into consideration, METU established the Continuing Education Center (CEC) affiliated to the Rectorate in March 1991 in order to meet this need in our country. METU CEC offers programmed and ad hoc events (often designed on demand) to support lifelong education.



Screenshot from sem.metu.edu.tr

The Continuing Education Center (CEC) held a total of 65 seminars in 2020, 52 of which were contracted and 13 were open to general participation. 13 seminars open to general participation held in 2020 reached 649 people. In June 2020, online SEM Event on “Security of Mobile Internet of Things in 5G and Beyond” was held by Dr. Pelin Angın.

METU Center for Society and Science also hosts numerous visitors activities throughout the year. Activities in the exhibition area are carried out in 5 different venues. These; “Science and Technology History Exhibition (BTTS)”, “Classic Automobile Exhibition (KOS)”, “Science Center (BM)”, “Science Workshops (BA)” buildings and “Open Air Exhibition (AHS)”. Between February 24 and March 13, 2020, the central exhibition area hosted 1,633 students and accompanying teachers with activities such as "Coding with Scratch", "Gökevi (Planetarium)", "Göbekli Tepe", "LEGO" and "Free Travel". In addition, the following activities were carried out for the central exhibition area in 2020.

https://tbm.metu.edu.tr/

METU Center for Society and Science also hosts numerous visitors at activities throughout the year. In 2019, a total of 7,139 visitors attended the activities that took place in Center’s five different facilities (https://tbm.metu.edu.tr).

Education outreach activities beyond campus

METU Science Communication Group (https://big.metu.edu.tr/) hoists a number of events including:

- METU Science Café (https://bilimkafe.metu.edu.tr/)
- Science meets Art (https://big.metu.edu.tr/bilim-ve-sanat-bulusuyor/)
- Household Science (*BIlimin en hali*) (*https://big.metu.edu.tr/bilimin-ev-hali/*) and (https://www.trtizle.com/belgesel/bilimin-ev-hali)
- Scientists Podcast series (https://big.metu.edu.tr/bilim-insanlari-podcast-serisi/)

Nature at METU

The Youth and Nature for the City project, supported within the framework of Erasmus+ Strategic Partnerships carried out by the Nature Conservation Center Center in partnership with METU, Butterfly Conservation (UK), Anima Mundi (IT), Thessaly Technological Education Institute (GR), equips young people with knowledge and skills on sustainability and nature conservation.

The ultimate goal of the project is to raise young people who can contribute to improving the quality of life of Ankara residents, while advocating for sustainable cities.

https://odtudedoga.org/ and https://www.instagram.com/odtudedoga/

For a presentation about the project please visit (In Turkish):
https://drive.google.com/file/d/1kz2J0ZGGYOXxXrfmSO8woO-3569uJoP0/view

Activities:

1. TUBITAK 4004: NATURE FROM FOUR DIRECTIONS
2. The participants learned by observing closely the forest, steppe, lake ecology and on sustainability issues of all ages and nature with people from all walks of life.
3. Çekirdek Kindergarten Climate Change and Sustainability Event: Conducted nature trainings on forest, steppe and butterfly and sustainability with children aged 4-5.
4. With the gradual ecology trainings, instructors provided an area where participants can look at nature with a curiosity and scientific perspective. The training aimed to contribute to becoming individuals who naturally observe the changes in their environment and realize the problems, question their causes and produce solutions. They organized trainings voluntarily with many schools and had the chance to reach many children between the ages of 9-17.

5. Within the scope of the project "Building a Resilient City to Climate Change by Empowering Women", coordinated by Ankara, Çankaya Municipality, we carried out a study in which we provided training together with climate change experts and raised awareness about climate change by playing games. After training kindergarten teachers were instructed to implement in their schools.

6. With METU Primary School Students aged 8 to 12, the instructors carried out a series of hands-on training titled "Getting to Know Nature and Animals", "Plant-Animal Relationships" and "Soil and Decomposers". Thus, participants have learned about ecological structure, relations

between living things, cycles and soil by observing in nature. They took a closer look at the mysterious world of insects, and took a look at their complex roles in nature. (Conducted twice)

The project webpage (http://odtudedoga.org/e-ogrenme) also features an e-learning portal which aims to give information about the species found in the natural context of the campus. Participants can then test their knowledge about using the test on the bottom of the page.

Activities by Ecosystem Research and Implementation Center (EKOSAM) (https://ekosam.metu.edu.tr/en)

Online outreach activities

- Role of carp and pike in Lake Ecosystems (https://ekosam.metu.edu.tr/tr/gol-ekosistemlerinde-sazan-ve-turna-baliklarinin-yeri)
- Free Ranging dogs and the Wildlife (http://ekosam.metu.edu.tr/tr/system/files/sahipsiz_kopekler_ve_vahsi_doga_0.pdf)
- METU BIG - Science Communication Lecture by Dr. Meryem Beklioglu https://www.youtube.com/watch?v=G1bJt1eqs5k

Events by Institute of Marine Sciences

Online Webinar "Aging, Repair and Marine Stem Cell" (https://www.youtube.com/watch?v=9nrtsCLHzfA)

Marine Education I, II and III in collaboration with Turkish Marine Environment Protection Association (Turmepa)

Educational activities directed at children under 12, prepared by Institute of Marina Sciences Researchers, are hosted online at Turmepa's social media channels.

https://www.instagram.com/p/CAC5nFcFfJ3/

In addition, METU's ILKYAR Student Society organizes field trips to elementary schools in deprived parts of the country, to perform basic science experiments to increase students' interest in science and scientific inquiry (https://ilkyar.metu.edu.tr/topluluk/).

Achieve gender equality and empower all women and girls

https://sdgs.un.org/goals/goal5

Policy for women participation

METU has a policy addressing women's applications, acceptance/entry, participation and progress at the university:
https://citob.metu.edu.tr/system/files/odtu_toplumsalcinsiyetesitligi_ilke_ve_stratejiler_belgesi.pdf

The application and acceptance rate of female students to graduate programs are measured and recorded by respective programs and institutes. The success and completion rate of all students are also tracked in accordance with the METU ACADEMIC FREEDOM, INTEGRITY, INCLUSIVENESS and EQUALITY Policy (http://sustainablecampus.metu.edu.tr/en/policies).

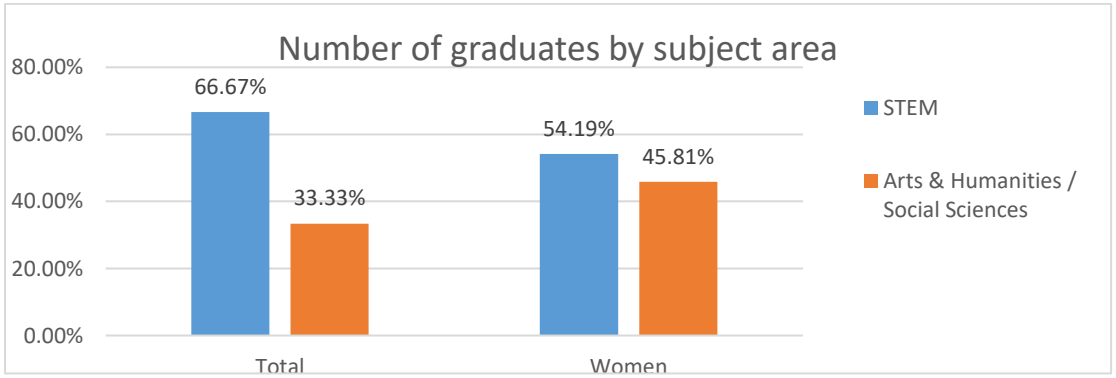
METU Institutional Development and Planning Office tracks women's likelihood of graduating compared to men's, to warn the relevant units and administration for any significant gaps. The data is shared in the institutional reports (in Turkish) at http://kgpo.metu.edu.tr/tr/stratejik-ve-mali-yonetim-belgeleri.

METU provides women's access schemes in the form of mentoring and scholarships. The alumni network (https://odtum.network/) as managed by the Alumni Office (https://mezun.metu.edu.tr/) helps students to connect to more experiences alumni to provide mentorship (https://odtumist.org/burs/mentorluk/)/ and https://ogem.metu.edu.tr/.

Women's application in underrepresented subjects

METU encourages applications by women in subjects where they are underrepresented through ongoing collaborations with different stakeholders including European Union (https://www.youtube.com/watch?v=UT7ZPohxSZU), community groups (https://www.instagram.com/p/CGHqEJRH6DX/) and university outreach in the form of promotion of programs where women are underrepresented with a focus on gender prejudice.

Proportion of women receiving degrees



Maternity and paternity policies

Maternity and paternity policies are regulated by relevant laws, which does not allow public universities (as state institutions) to exercise any practice outside the law. Civil Servants Act 657 allows for a 16-week maternity leave and the Labor Law 4857 Article 35 allows for a 10-day paternity leave.

The application procedure for maternity and paternity leave can be accessed at https://pdb.metu.edu.tr/tr/dogum-izni-islemleri/.

Childcare facilities

METU provides paid childcare facilities for students staff and faculty. The website of METU Pre-school is accessible at https://yuva.metu.edu.tr/

Women's mentoring schemes

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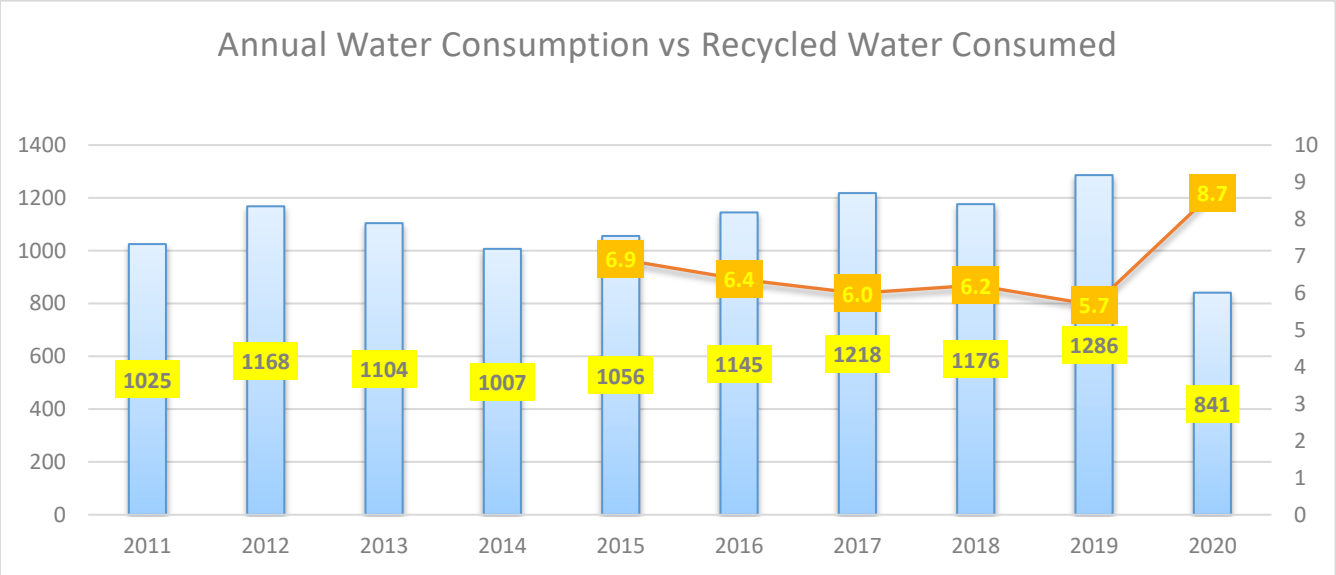
Ensure availability and sustainable management of water and sanitation for all

https://sdgs.un.org/goals/goal6

On-Campus water usage and care

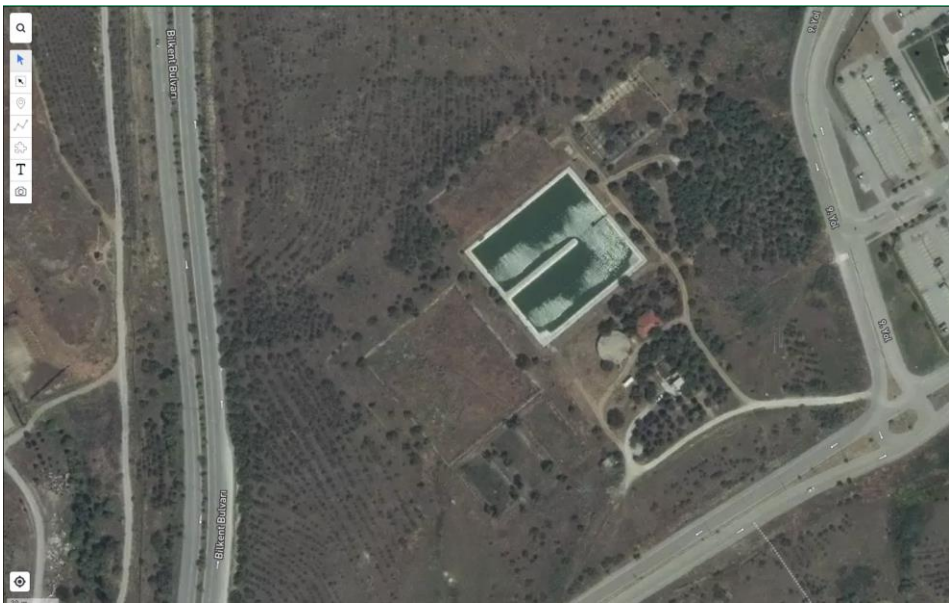
For 2020, Annual amount of water consumed per person (campus population) is 46 m3. The amount of recycled water has increased up to nearly 9% by 2020.



Wastewater treatment

Municipalities Law No. 5216 dictates municipalities to undertake sewerage services for all those within their boundaries. The sewerage in METU is treated technically for reuse in the university's own facilities than transferred to Ankara Water and Sewerage Authority's (ASKI) infrastructure to whereby a conventional activated sludge process is employed.

ASKİ, Conventional activated sludge process, Ankara (http://www.aski.gov.tr/TR/ICERIK/Atiksu-Aritma/30).



Water Recycling Plant (taken from Google Earth)

Water reuse policy

As part of the METU Platform for Advanced Research on Renewable Energy, Ecosystem and Sustainability (YESAP) study (BAP-08-11KB2014K120600-2)

- ***Rainwater Management:*** With the employment of Stormwater Management Model (SWMM) the potential use of green roofs, rain barrels (for rainwater harvesting), rain gardens and permeable concrete (on roads and parking lots), a plan to prevent rainwater runoff was formulated.
- ***Water management:*** The water for Ankara Campus is exclusively sourced from three wells near Lake Eymir. As a pilot application, the wastewater of METU Teknokent and the lodgments are refined in membrane facilities within the campus to use for irrigation.

Recycled water used in irrigation

Annually, 40,800m^3 of water used in the Campus is recycled for reuse.

Water in the community

Water management educational opportunities

Geological Engineering Department faculty member K. Koray Yılmaz, spoke in TRT Radio's "Voice of Life" program, for the World Water Day. He gave information about water resources, water problems and the work done in our country to solve these problems (https://soundcloud.com/user-3519291/dunya-su-gunu-22032019-doc-dr-koray-k-yilmaz).

Promoting conscious water usage

Between 2014-17, within the framework of METU Platform for Advanced Research on Renewable Energy, Ecosystem and Sustainability (YESAP), a study was carried out (BAP-08-11KB2014K120600-2) to evaluate METU's environmental performance an investigate the application possibilities for rainwater, sewerage and solid waste management.

Rainwater Management: With the employment of Stormwater Management Model (SWMM) the potential use of green roofs, rain barrels (for rainwater harvesting), rain gardens and permeable concrete (on roads and parking lots), a plan to prevent rainwater runoff was formulated.

Water management: The water for Ankara Campus is exclusively sourced from three wells near Lake Eymir. As a pilot application, the wastewater of METU Teknokent and the lodgments are refined in membrane facilities within the campus to use for irrigation.

The installation of smart water meters: In order to uncover water consumption and losses, smart water meters were installed to a number of locations, including dormitories, and water consumption was actively monitored throughout the life of the project. The findings revealed that behavioral and infrastructural modifications are necessary to achieve water management within the campus.

Through the use of well water extracted from Bursal wells and Lake Eymir, which became usable as a result of METU Limnology Lab's bio-manipulation program explained below, METU helps off-campus water conservation.

METU Ankara Campus hosts Lake Eymir, which is a part of Eymir - Mogan Watershed consisting of two consecutive lakes along the line of Ankara – Hatip Stream. Up until 1997, Lake Eymir was largely polluted by the wastewater from the town of Gölbaşı, located just outside Ankara. With the collaboration of Ankara Water and Sewer Authority and METU Limnology Laboratory, the ecological monitoring of the watershed has begun and a facility to treat wastewater was installed. For the healing of the aqua system of Eymir, a plan involving biomanipulation (eliminating the unwanted alien species from the lake) has been initiated.

https://www.metu.edu.tr/system/files/eymir_golu.pdf

"Mogan-Eymir Lake Sub-Basin Protection Action Plan" is still effective in collaboration with the Ministry of Agriculture and Forestry General Directorate of Water Management. (https://www.tarimorman.gov.tr/SYGM/Sayfalar/Detay.aspx?SayfaId=7)

Cooperation on water security

The following are the examples of ongoing projects, on water security.

Flow Estimation and Basin Optimization Model

The Evaluation of Water Energy Food Nexus in Sakarya Watershed

Paralleling and Optimizing Hash Function Algorithms

Ensure access to affordable, reliable, sustainable and modern energy for all

https://sdgs.un.org/goals/goal7

University measures towards affordable and clean energy

METU 2018-22 lays the groundwork for renovations in the existing building stock and the construction of new buildings.

Smart building applications are embraced in the renovations and new constructions. The construction of METU Campus began in late 1950s, becoming a landmark of modernist architecture in the years to come. The buildings in the original plan are conserved, while getting equipped with energy efficient applications, such as LED lighting fixtures, automatic climate control systems, motion sensor operated lights, energy efficient electronics (computers, monitors and accessories) and appliances (A/C units, dishwashers etc.).

New buildings are designed and constructed in accordance with smart building principles to save energy. Shielding adjustments and the use of natural light in indoors are most commonly used elements, in addition to the use of energy efficient applications. The list of newest additions to METU Campus building stock are listed below.

Ayaslı Research Center: http://ee.eee.metu.edu.tr/ayasli-research-center/
MATPUM https://www.venesco.com.tr/odtu-matpum
http://www.emo.org.tr/ekler/60381704cad1744_ek.pdf?dergi=520%22%20target=

METU Yüksel Proje Auditorium: http://www.arkiv.com.tr/proje/odtu-yuksel-proje-amfisi/10324

METU Faculty of Education Annex Building: http://www.arkiv.com.tr/proje/orta-dogu-teknik-universitesi-egitim-fakultesi-ek-binasi/11319

METU MODSIMMER Building: http://www.arkiv.com.tr/proje/odtu-modsimmer-modelleme-ve-simulasyon-arastirma-ve-uygulama-merkezi/1587

METU 2018-22 Strategic Plan, Goal 17.1 outlines the principles for renovation of existing buildings and construction of new ones.

The list of buildings with smart elements in METU Campus

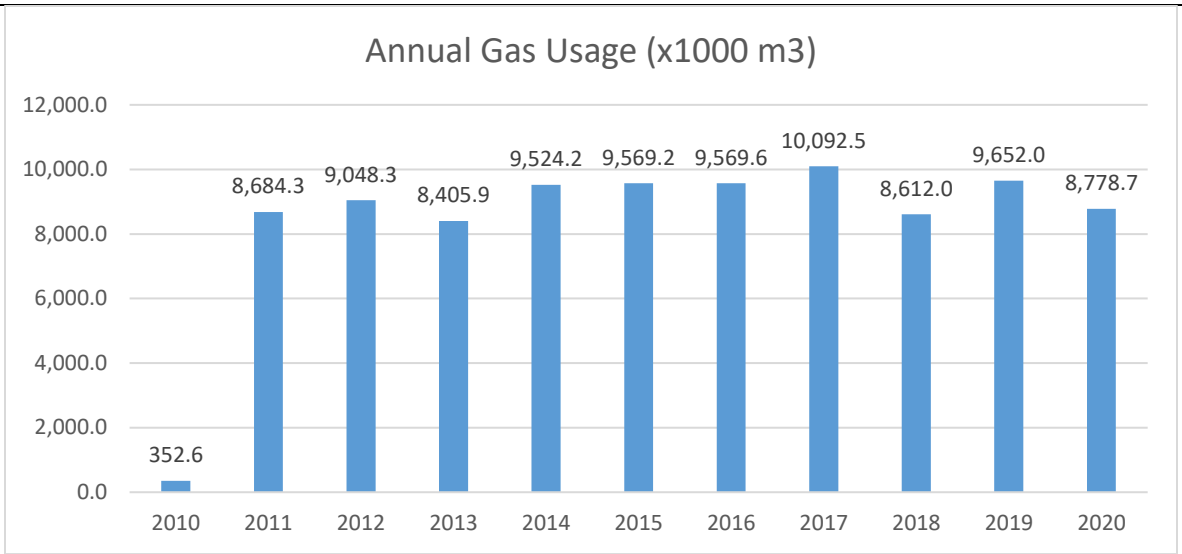
No.	Name	Building Area (m^2)	No.	Name	Building Area (m^2)
1	YTM Matpum	2,000	11	Tasarım Fabrikası	1,216
2	Ayaslı Research Center	3,200	12	TAI AR-GE binası	4057
3	Matpum Annexe Building	1,100	13	Milsoft Building	7,300
4	Telekom Ar-Ge Binası	15,727	14	Yüksel Proje Auditorium	5,200
5	SATGEB	25,882	15	Faculty of Education Annex Building:	6,600
6	MET Tesisleri(A-B-D-E Blk-BİLİM)	40,336	16	Graduate Students Guest House	11,870
7	Titanyum Blok	6,587	17	İsa Demiray Dorm.	7,000
8	İkizler Binası	8,275	18	19th Dorm	14,000
9	Galyum Blok	13,968	19	Osman Yazıcı Guest House	2,500
10	Silikon Blok	10,300	20	METU MODSIMMER Building	10,500

METU 2018-22 Strategic Plan, Goal 17.3 outlines the principles for renovation of existing buildings. *METU SP 2018-22 is accessible at http://sp.metu.edu.tr/system/files/odtu_sp_2018_11_01.pdf*

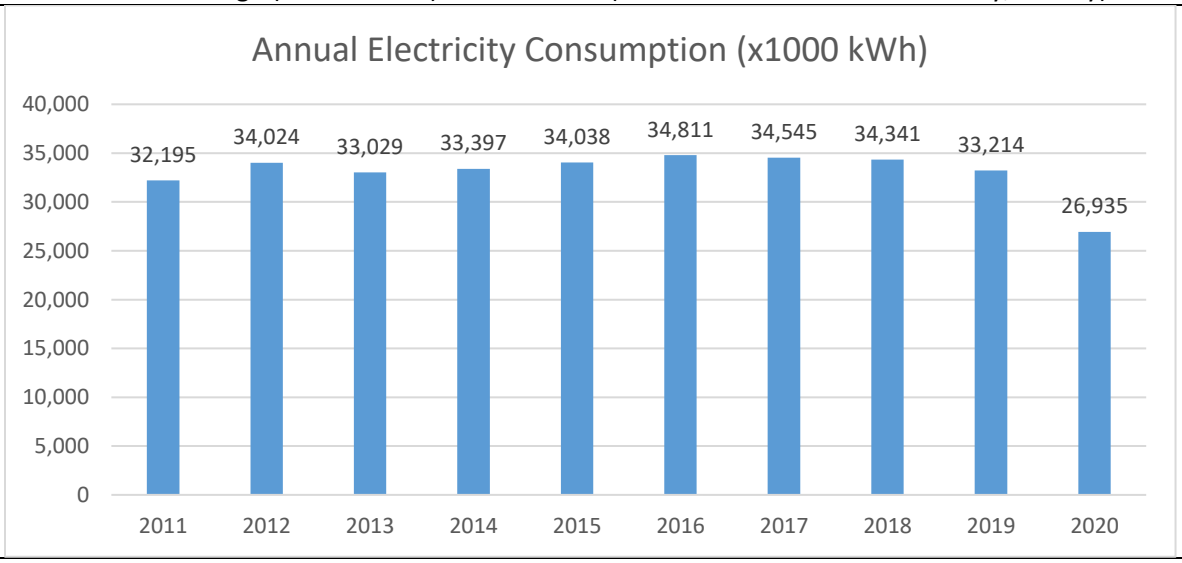
Carbon reduction and emission reduction process

METU 2018-22 Strategic Plan, Goal 17.2, aims to lower energy consumption, hence reduce the carbon footprint by altering the on-campus transportation system.

In METU, annual energy consumption is monitored and reduced by using energy efficient practices.



Total Gas Usage (All Locations) in 2011-2019 (Middle East Technical University, Turkey)



Total Electricity Usage (All Locations) in 2011-2020 (Middle East Technical University, Turkey)

Energy wastage identification

The university performs regular checks energy consumption levels at the campus level, and for individual buildings in order to identify where energy waste is possible. In addition to the overall plan to replace appliances, electronics and lighting fixtures for electricity consumption and the improvements made on building elements to reduce heat escape is performed on a regular basis

Divestment policy

In order to reliance on coal and oil, METU has a divestment policy to use more environment friendly sources, notably gas, and renewable sources such as solar energy.

Middle East Technical University has solar energy applications (photovoltaics) on two buildings. One of them is located on the Ayasli Smart Building and has a total power of 75 kW. The other is a total of 5.5 KW panels on the roof of the Physics department.
For the 50kW part of the total of 75 KW panels in the Ayaslı building, real-time data can be tracked instantly via a website that is accessible within the campus.
In the "Photovoltaic Systems Test Platform" within the body of "ODTÜ-GÜNAM", 3 kW of 5.5 kW is given directly to the Physics building network while 2.5 kW part is for testing, and the energy produced by them is given to the load unit of electronic analysis systems. Analysis results and evaluations are announced to the world of science through international articles.

Solar Panel (METU Department of Electrical and Electronics Engineering Building)

OUTREACH: Energy and the community

Local community outreach

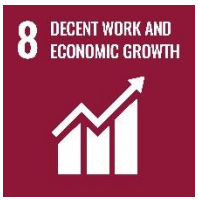
METU hosts two significant research centers excelled in renewable energy sources, collaborating with local, national and global stakeholders in conducting research and developing policies to disseminate the use of renewable energy sources.

1. **The Center for Solar Energy Research and Applications (GÜNAM)** is a multi-disciplinary center of excellence in the area of solar energy science and technology. It has been supported by the Turkish Ministry of Development since 2009. With rich infrastructure and human capital, GÜNAM is the leading and most comprehensive national center in the development of solar energy technologies including photovoltaic, concentrating solar thermal, and cross cutting technologies such as high performance buildings, smart grids, and smart cities with a mission to be a global player in this field. (http://gunam.metu.edu.tr/)
2. **METU Center for Wind Energy (RÜZGEM / METUWind)** is established on 28 February 2011, funded by The Ministry of Development.
   METUWind is established with the vocation of becoming the center of attraction at the national and international level with its innovative and competent designs/accreditation activities as well as its scientific and technological research on the wind energy.

METUWind is part of a number of national and international organizations. At the national level, METUWind has a membership of Renewable Energy, Eco-systems and Sustainability Research Platform of METU (YESAP), Turkish Wind Energy Association (TWEA/TÜREB) and Wind Energy Technologies Platform (RETEP). At the international level, METUWind takes part at the pioneering wind energy platforms in Europe such as the European Energy Research Alliance – Wind Energy Joint Program (EERA JP Wind) (associate member) and the European Academy of Wind Energy (EAWE) (full member). (https://ruzgem.metu.edu.tr/en/about-us)

METU Continuous Education Center (CEC) also offers a training program on wind energy titled "Wind Energy and Turbine Technologies" (https://sem.metu.edu.tr/egitim/ruzgar-enerjisi-ve-ruzgar-turbini-teknolojileri-temel-egitimi.html)

METU Sustainable Energy Group (METU-SEG) The Sustainable Energy Group at Middle East Technical University is focused on advancing the State-of-the-Art in Sustainable Thermal Energy Conversion Technologies. (http://seg.me.metu.edu.tr/index.html)



Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

https://sdgs.un.org/goals/goal8

ACADEMIC FREEDOM, INTEGRITY, INCLUSIVENESS and EQUALITY Policy ensures inclusiveness and equality in employment practices (http://sustainablecampus.metu.edu.tr/en/policies).

Employment practice living wage

METU pays all staff and faculty the wage defined by the state. All the employees are paid at least the living wage, as dictated by the Civil Servants' Act (657) of 1965. (https://www.mevzuat.gov.tr/MevzuatMetin/1.5.657.pdf)

Employment practice unions

METU recognizes unions and labor rights (freedom of association and collective bargaining) for all, including women and international staff. The list of members and their respective unions are also made public: http://pdb2.metu.edu.tr/sendika-uye-listesi/

Employment policy on discrimination

METU has a policy on ending discrimination in the workplace based on gender. In 2017, Gender Equality Support and Sexual Harassment Prevention Unit (CİTÖB) was formed to raise awareness on gender equality, support equality in representation, and raise awareness of cases of gender-based violence, especially sexual harassment and assault, raise awareness and evaluate applications regarding these cases and support applicants.

The institutional policy in policy of non-discrimination against women (in Turkish) is accessible at:

https://citob.metu.edu.tr/system/files/odtu_toplumsalcinsiyetesitligi_ilke_ve_stratejiler_belgesi.pdf

Other bases of discrimination (age, religion etc.) are eliminated by Labour Law (4857) and Civil Servants' Act (657).

Employment practice equivalent rights outsourcing

METU has a policy on guaranteeing equivalent rights of workers when outsourcing activities to third parties: https://pdb.metu.edu.tr/4857-sayili-kanuna-tabi-calisan-personel-icin-maas-islemleri

Build resilient infrastructure, promote inclusive and sustainable industrialization and foster innovation

https://sdgs.un.org/goals/goal9

METU fosters innovation through collaborative projects with the industry and public sector.

METU Teknokent

METU Teknokent was established in 2001 to bring together research institutions and industrial enterprises to cooperate towards research-and-development and innovative activities, engaging in knowledge and technology transfer. METU Teknokent hosts 411 companies (http://odtuteknokent.com.tr/tr/firmalar/tum-firmalar).

METU Technology Transfer Office (TTO)

Funded by TÜBİTAK 1513 Technology Transfer Offices Support Programme, METU Technology Transfer Office (METU-TTO) was founded to focus on university-industry collaboration. METU-TTO assumes a central position in delivering the output of R&D activity by METU researchers to the community's service. The execution of University-Industry Cooperation activities, management of intellectual property rights of created by the R&D activity of METU faculty, and their commercialization for both community's use and generation of income for further research are the main objectives of the unit. METU TTO focuses on three main strategies:

- To carry out activities to improve Technology Readiness Level (TRL) of innovations; for the lowest TRL Level innovations (TRL1), collaborations with small- and medium scale enterprises were given primary importance.
- To disseminate academic entrepreneurship among METU researchers by supporting them set up businesses towards further development and commercialization of innovations found in the METU TTO portfolio.
- The relationships with the institutions already collaborated through companies and TTO groups, new projects will be made more sustainable though new projects within the scope of internationalization.

In 2020, 90 new projects were initiated among Teknokent exceeding 1,700 projects since 2002. METU TTO helped to register 39 new domestic and international patents, and 60 new patent applications with a total of 442 applications and 260 patents registered.

Other Collaborations

Within the framework of the knowledge and competencies of the university, strengthening existing structures and creating new ones, the growth strategy focusing on technology based entrepreneurship has been continued. In 2018, the activities and program such as YFYİ (Yeni Fikirler Yeni İşler), Animation Technologies and Game Development Center (ATOM), TÜBİTAK 1512 Individual Young Initiative Program (BİGG) TEKNOSTART, TeknoMENTORs program, Incubation Program and Investor-Entrepreneur

meetings, Entrepreneurship and Innovation Platform are organized with increasing interest from participants. Growth Circuit—an accelerator program and investment company founded by METU Technopolis, aiding initial-phase technological investments within the Turkish entrepreneurship ecosystem, towards accessing to international markets. Growth Circuit Ventures is aiding technology start-ups with $ 25,000-250,000 investments, also establishing Turkey's first co-working space sponsored by Technopolis, Cozone, within Technopolis Informatics Innovation Center (BİLİM) to host 350 members ın a 2,300 square meter space. LABS OUT is a research based (intellectual property focused) startup accelerator, with the objective to help identify, develop, and speed up the commercialization of university-based intellectual property through commercialization by licensing the technology to the new startups established by the inventors.)

ASELSAN ACADEMY

In order to take advantage of university-industry cooperation with profound R&D implications; METU, ASELSAN and three Research Universities (Gazi University, Gebze Technical University and Istanbul Technical University) signed a Graduate Education Protocol in 2018.

The program entails cooperation not only with ASELSAN, but also among participating research universities towards contributing to our defense industry in the fields of technology and engineering. The number of graduate students participating in the ASELSAN Academy program are increasing with the heightened involvement of METU.

Reduce inequality within and among countries

https://sdgs.un.org/goals/goal10

Non-discriminatory admissions policy

In Turkey, the existence of a centralized selection and admission system (https://www.osym.gov.tr/) does not allow the universities to specifically target to admit any disadvantaged groups for undergraduate education. However, the practices of positive discrimination is ensured by relevant laws and regulations:

Law on Disabilities (No. 5378) Articles 14 and 15 guarantees employment and education for all individuals with disabilities:
https://engelsiz.yok.gov.tr/Documents/Hakkimizda/5378_sayili_engelliler_kanunu.pdf

The universities are required to spare a capacity for the admission of disabled students:
https://engelsiz.yok.gov.tr/Sayfalar/Haberler/kontenjan-mujdesi.aspx

Access to university track underrepresented groups' applications

METU as a body measures and track applications and admissions of underrepresented (and potentially underrepresented) groups including

- low income students,
- non-traditional students,
- women, and
- disabled students.

Their application, admission, success and completion rates are monitored by Directorate of Student Affairs and METU Disability Support Office (https://engelsiz.metu.edu.tr/en/about-dso).

Gender Equality Support and Sexual Harassment Prevention Unit

CİTÖB aims to raise awareness on gender equality, support equality in representation, and raise awareness of cases of gender-based violence, especially sexual harassment and assault, raise awareness and evaluate applications regarding these cases and support applicants.

https://citob.metu.edu.tr/tr

Access to university underrepresented groups recruit

METU delivers programmes to recruit students, staff, and faculty from underrepresented groups, within the liberties identified by the relevant laws and regulations.

Student Recruitment

In Turkey, the existence of a centralized selection and admission system (https://www.osym.gov.tr/) does not allow the universities to specifically target to admit any disadvantaged groups for undergraduate education. However, the practices of positive discrimination is ensured by relavant laws and regulations:

Law on Disabilities (No. 5378) Article 15 guarantees education for all individuals with disabilities.

The universities are required to spare a capacity for the admission of disabled students: https://engelsiz.yok.gov.tr/Sayfalar/Haberler/kontenjan-mujdesi.aspx

Staff and Faculty Recruitment

Law on Disabilities (No. 5378) Article 14 employment for all individuals with disabilities.

METU ACADEMIC FREEDOM, INTEGRITY, INCLUSIVENESS and EQUALITY Policy ensures “equality in employment with regard to gender, cultural and religious background” (http://sustainablecampus.metu.edu.tr/en/policies).

METU Disability Support Office

Middle East Technical University is the first university of Turkey in which accessibility studies towards students with disabilities have been initiated. The first attempt in accessibility studies started in 1998 when the work group of "Accessible METU Project" was established. The main objective of the project was to improve the accessibility of buildings in the campus and circulation inside the buildings. The aim of the project was to make pedestrian ways between faculty buildings, dormitories, sport arenas and cafes suitable for transportation of students with disabilities. In 2004, long before the legal obligation for universities to establish a disability coordination service in Turkey, METU Disability Support Coordination Unit was established to investigate problems that students with disabilities faced and to develop suitable systems for the solution of these problems. The Unit involved in the studies of "Regulations on the Solidarity and Coordination of the Individuals with Disabilities in the Institutions of Higher Education" which was approved in 2006 and revised in 2010.

Disability Support Coordination Unit was reconstituted and METU Disability Support Office was established instead on June 28th, 2011in accordance with the Middle East Technical University Senate's decision dated and numbered 2011/5-2. METU Disability Support Office was charged with providing equal access to resources and services of the university for students who have special needs because of specific disabilities, and establishing an environment that supports their development. METU Disability Support Office's working procedures and principles determined as reorganizing physical circumstances of the campus depending on the special needs of students with disabilities and enhancing academic accessibility in accordance with the articles 11 and 12 of "Regulations on the Solidarity and Coordination of the Individuals with Disabilities in the Institutions of Higher Education".

https://engelsiz.metu.edu.tr/en/about-dso

Accessible facilities

METU Campus is equipped with liftchairs and ramps for those with disability. To eliminate any possibility of oversight, the Disability Support Office employs “Hunting the Barriers” survey to identify any obstructions on Campus.

Disability access scheme

METU offers access schemes for people with disabilities such as mentoring or other targeted support

Mentoring https://engelsiz.metu.edu.tr/en/

Other targeted support https://basinda.metu.edu.tr/icerik/odtuden/84/odtuye-yokten-engelsiz-universite-odulu-university-accessibility-award-to-metu-by-yok

Disability accommodation policy

Have **reasonable accommodation** policy or strategy for people with disabilities invloving physical, emotional, mental, academic or employment related issues.

For emotional and mental accommodations members can seek help in https://srm.metu.edu.tr/

For academic accommodations METU Disability Support Office offers notetaker support and course partnerships (https://engelsiz.metu.edu.tr/en/)

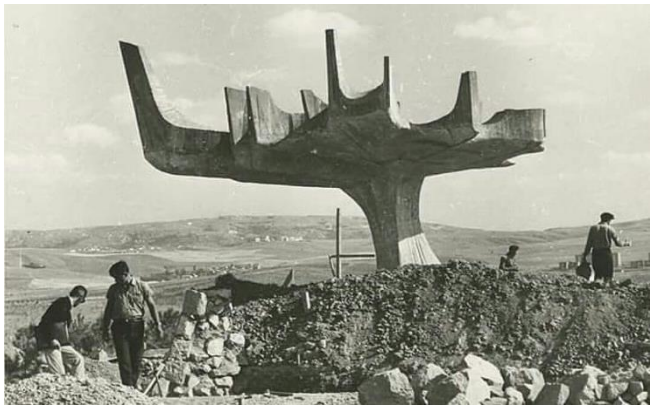
Promote sustained, inclusive and sustainable economic growth, full and productive employment and decent work for all

https://sdgs.un.org/goals/goal11

Support of arts and heritage

The construction of METU Campus began in the early 1960s as Turkey's first university Campus. Located outside Ankara, the Campus hosts a group of finest examples of modern architecture, designed by Behruz and Altuğ Çinici. (METU Campus as featured in the Architecture journal Arkitekt, 1965 (3) 320: http://dergi.mo.org.tr/dergiler/2/146/1746.pdf). METU provides public access to buildings, monuments and natural heritage.

METU also hosts a large number of sculptures and monuments.



METU "Tree of Science" Tamer Başoğlu and Ersen Gürsel (1966)

"Space and Youth" Burhan Alkar (1986)

The Campus is open to public for educational and research activities. METU Library is open to public, for on-site use of books and other collections. (http://lib.metu.edu.tr/)

METU Campus hosts three museums METU Archeology Museum, Science and Technology Museum, and Geology Museum.

METU Archeology Museum

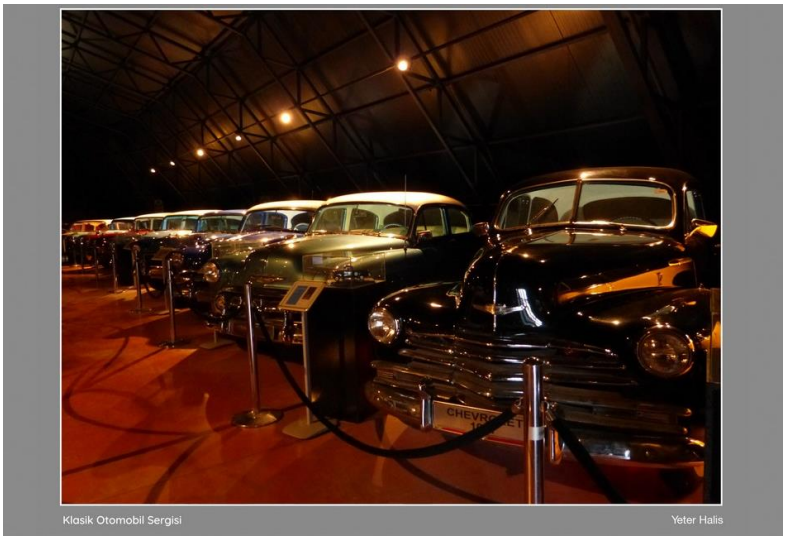
METU is located outside Ankara, and the Campus was built in the early 1960s at Yalıncak and Koçumbeli villages, both of which are significant archeological settlements.

Founded in 1969, the METU Archeology Museum exhibits archaeological artifacts unearthed in the Koçumbeli settlement (https://muze.metu.edu.tr/galeri/kocumbeli), which dates back 5,000 years, within the METU campus site, as well as the artifacts found in Yalıncak site (https://muze.metu.edu.tr/galeri/yalincak) and the Phrygian necropolis tumuli (https://muze.metu.edu.tr/frig-tumulusleri) in Ankara city center.

Science and Technology Museum

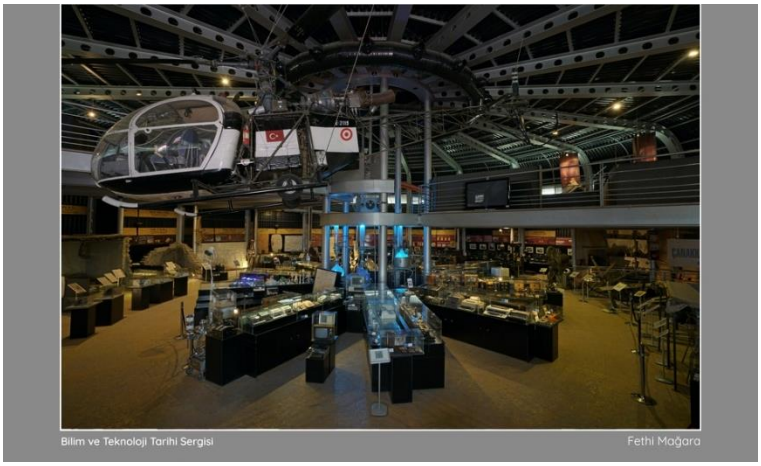
As Part of METU Center for Society and Science (https://tbm.metu.edu.tr/) METU Science and Technology Museum consists of Open Air Museum (https://tbm.metu.edu.tr/ahs/), Classical Automobile Museum (https://tbm.metu.edu.tr/kos/), The History of Science and Technology Museum (https://tbm.metu.edu.tr/btts/), Science Center (https://tbm.metu.edu.tr/bm/), Planetarium (https://tbm.metu.edu.tr/gokevi/) all of which are open to public.

METU Center for Society and Science also hosts numerous visitors activities throughout the year. The activities take place in Center's five different facilities.



Classical Automobile Museum (https://tbm.metu.edu.tr/kos/)

Open Air Museum (https://tbm.metu.edu.tr/ahs/)



The History of Science and Technology Museum (https://tbm.metu.edu.tr/btts/)

Science Center (https://tbm.metu.edu.tr/bm/)

Planetarium (https://tbm.metu.edu.tr/gokevi/)

METU Geology Museum

Middle East Technical University Geology Museum was established in 1995 and exhibits rocks, minerals, fossils, precious stones and historical mining artifacts in the 150 m2 corridor located on the ground floor of the Geological Engineering Department. It has been home to thousands of mineral, rock and fossil specimens collected by the members and graduates of the department or donated by collectors since the foundation year of the department in 1963. (http://geoe.metu.edu.tr/tr/node/142)

Public access to green spaces

METU's Lake Eymir is open to all visitors throughout the year (https://ihm.metu.edu.tr/tr/eymir-golu).

Arts and heritage contribution

Contribute to local arts, in terms of number of annual public performances of university choirs, theatre groups, orchestras etc… either ad-hoc or as part of an ongoing programme

METU hosts a large number of events open to general public both on a programmed and ad hoc basis.

METU Culture and Convention Center is the primary area where such activities take place. The schedule for the year 2019 can be accessed at https://kkm.metu.edu.tr/calendar-node-field-etkinlik-tarihi/year.

In addition, METU hosts a large number of public events including:

- METU Music Society's annual Rock Festival (http://mt.metu.edu.tr/)
- METU Theatre Festival (http://odtuoyunculari.metu.edu.tr/)
- METU Art Festival (https://odtusanat.metu.edu.tr/)

Record and preserve cultural heritage

METU delivers projects to record and preserve intangible cultural heritage (such as local folklore, traditions, language, and knowledge).

Center for Research and Assessment of Historical Environment (TACDAM)

In 1966, scholars from various universities and scientific institutions of Turkey joined together under the leadership of the former president of Middle East Technical University, Kemal Kurdaş, to establish a research institute which would undertake the Keban Project. It was the co-operative effort towards salvaging the historical monuments and sites of a region that had to be flooded through the construction of the Keban Dam in the 1970s. After 1975, the project extended its study area to include the Lower Euphrates Region. While the archaeological sites within METU campus were being excavated, METU Archaeological Musem was established with the aim of disseminating to the public the information revealed by these excavations.

This institute, re-structured in 1995 as a Centre of Research and Assessment of Historical Environment (TAÇDAM) continued with its original mission: to motivate undertakings of salvage archaeology and documentation of historical environment by means of the most advanced methods and techniques for those areas under risk. Now, being among advanced institutions of archaeology in Turkey, TAÇDAM stands as one of the leading research units concerning historical environmental matters with an interdisciplinary vision. Directed on research matters by a managing committee formed of representatives from several academic units at Middle East Technical University -archaeometry, geology, restoration of historic monuments, city and regional planning- TAÇDAM serves as an interdisciplinary research center to survey and excavate archaeological sites in threatened areas of Turkey, and to publish their results.

SUSTAINABLE CAMPUS

METU Strategic Plan 2018-22 Goals 17.1 and 17.2 lays the groundwork for the preparation of a more sustainable transportation scheme.

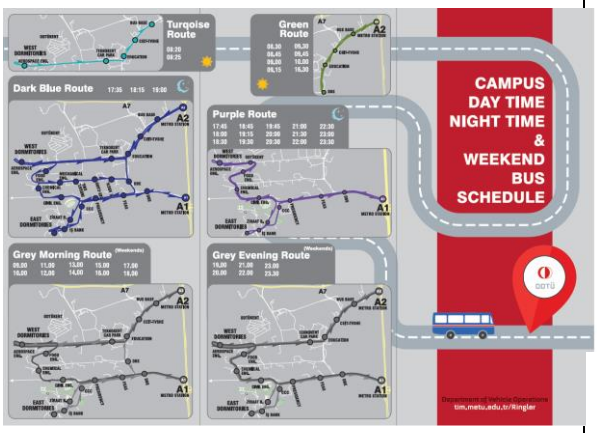
- The bicycle path and pedestrian walkway construction has been underway and scheduled to be completed by the end of 2020. Bicycle racks are also installed in key locations.
- The renewal of ring services is planned, existing bus fleet are being replaced with older models.
- Charger station for EV cars has been installed.

In order to limit in-campus traffic and use of private vehicles, the university opened new satellite parking lots at the edge of the campus perimeters, where members can leave their cars and commute with shuttle to other parts of the campus. Once members got used to using these parking lots, other parking lots at the core of the campus will be gradually decreased.

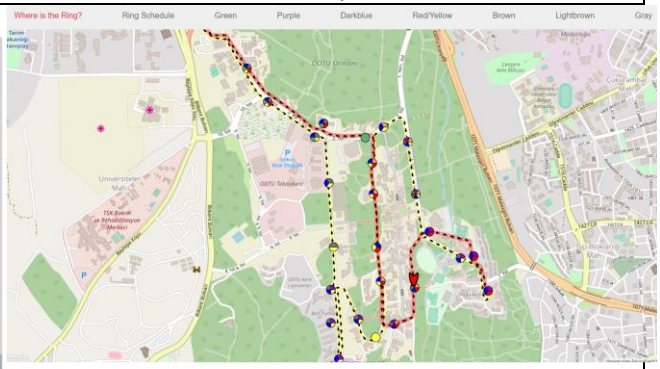
A2 Gate, Satellite Parking Lot, Middle East Technical University, Ankara (39.906846, 32.767037)

Bus Stop with Schedule

Bus Depot



Bus Routes and Schedule



Middle East Technical University, Turkey/ https://ring.metu.edu.tr

Real Time Location of Busses

The Directorate of Vehicle Management offers free shuttle services for the METU Community (http://tim.metu.edu.tr), 31 buses complete a total of 8620 trips throughout the year.

ODTÜ mobile phone applications for both ios and android, and web pages offer information about bus routes, real time location and trips.

Web page for bus routes and trips:
Main campus: https://ring.metu.edu.tr
APP: https://itunes.apple.com/tr/app/orta-doğu-teknik-üniversitesi/id1206857420?l=tr&mt=8
https://play.google.com/store/apps/details?id=tr.edu.metu.mobile

The use of Zero Emission Vehicles (ZEV) is also encouraged on campus.

bike parking racks near cafeteria

(above and below) METU Electric Charge Station

Electric Scooters

With the 2018-22 Strategic Plan, METU prioritized the increased use of bicycles and Zero Emisson Shuttles in its campuses.

METU Campuses are cyclist and pedestrian friendly. Along with central Alle, there are many roads closed to vehicle traffic in order to provide a safe environment for cyclists and pedestrians. Ankara Campus is accessible through public transport, and many students and staff members reach to campus using the subway. Many administrative and academic buildings are at a walking distance (10-15 minutes) from the subway station and paid electric scooters or bicycles are available. Also there is a cycling path parallel to the main road.

Affordable on-campus housing

METU offers affordable housing for employees on METU Campus. The information of METU Lodgings can be accessed at http://stm.metu.edu.tr/node/134.

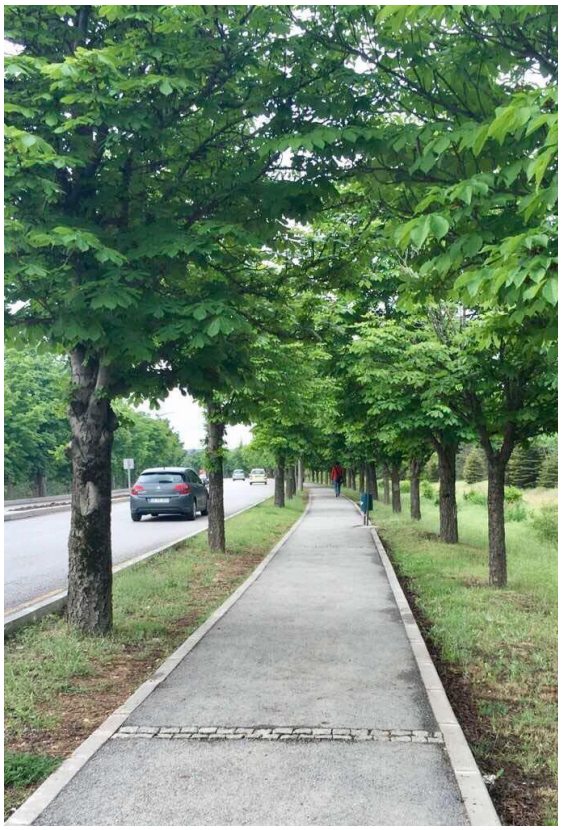
METU Professor Houses (Behruz Altuğ Çinici)

METU offers a wide range of housing alternatives (including dorms and guesthouses) for students (http://yurtlar.metu.edu.tr/node/173). With 19 dormitories, METU has a capacity to host a total of 7,286 students.

METU 19th Dorm

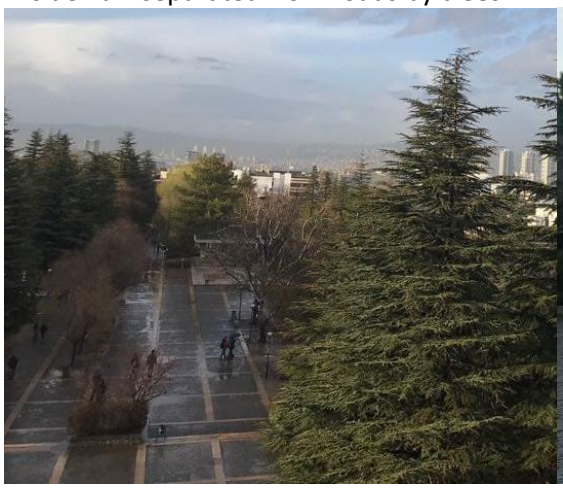
Pedestrian priority on campus

METU prioritizes pedestrian commuting on its campus by putting speed limit to vehicles, offering pedestrian crossings and walkways throughout the campus. METU Strategic Plan 2018-22 lays the groundwork for the application of pedestrian priority on campus, by improving pedestrian walkways.



sidewalk separated from roads by trees

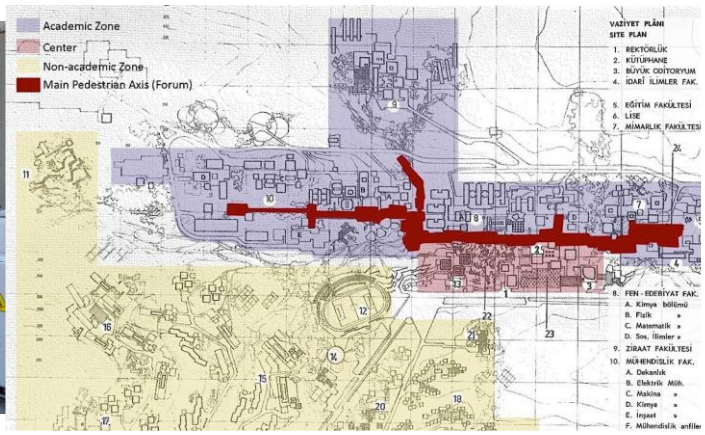
lifts for wheelchair users



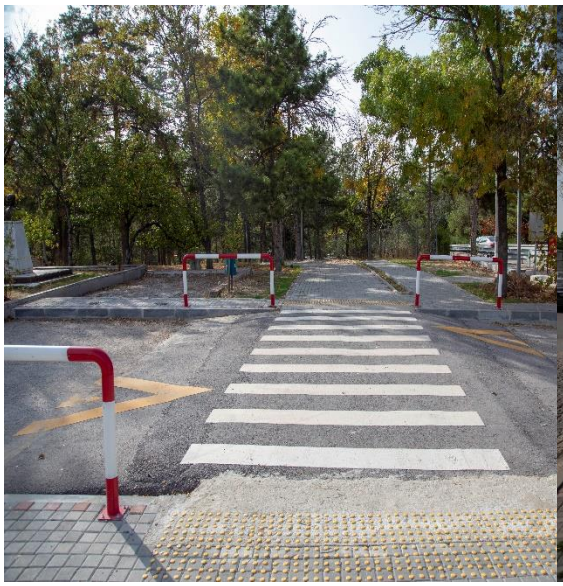
main pedestrian road called “ALLE”

pedestrian road and square near stadium

platform lifts for disabled



Altuğ-Behruz Çinici Plan (1961) and settlement sub-regions according to main function groups



elevated pedestrian crosswalks

warning sign for pedestrian area at the campus entrance

Local authority collaboration regarding planning and development

There are a number of research projects carried out in collaboration with local, regional, national and international authorities:

One such example is the Nature4Cities Project “Nature Based Solutions for Re-Naturing Cities: Knowledge Diffusion and Decision Support Platform through New Collaborative Models” (https://www.nature4cities.eu/). Ankara as one of the pilot cities, the project brings together METU and local Çankaya Municipality (https://www.nature4cities.eu/post/ankara-%C3%A7ankaya-the-capital-of-turkey-is-seeking-for-nature-based-solutions).

Ensure sustainable consumption and production patterns

https://sdgs.un.org/goals/goal12

Policy waste disposal

Toxic waste treatment

The toxic waste in METU is handled in accordance with the Waste Directive of the Environment Ministry of Environment and Urban Planning (https://www.resmigazete.gov.tr/eskiler/2015/04/20150402-2.htm)

In METU, the presence of a large number of research labs help produce a large sum of toxic waste. The toxic waste regulation was introduced in 2018. Pictures show Temporary Waste Storage areas where the waste received from the labs are stored, they are picked up from the authorized companies such as (https://www.ekovar.com.tr/hizmetlerimiz/index.html). The Rectorate does not dictate which companies to work with as the units can find more suitable waste management companies, specific to their type of waste. However, when the unit faces a high cost to get rid of toxic waste, it can seek support from the “Laboratuvary waste commission”.

Landfill policy

The waste disposal in METU is handled in accordance with the Waste Directive of the Environment Ministry of Environment and Urban Planning (https://www.resmigazete.gov.tr/eskiler/2015/04/20150402-2.htm).

Minimization of plastic use

In 2019, METU Zero Waste Unit was formed in order to prevent waste, to use resources more efficiently, to prevent or minimize waste generation by reviewing the causes of waste generation, and to collect and recycle waste separately at its source in case of occurrence.

To carry out zero waste practices that will raise awareness with the aim of managing resources in a sustainable and efficient manner, after determining the current situation in the Middle East Technical University and providing the necessary equipment within the scope of the zero waste project.

Ensuring the transportation of the wastes that are collected separately at the source and collected separately without mixing with each other in coordination with the Internal Services Directorate and the relevant unit of the Municipality.

Starting from the prevention of waste generation, to ensure the establishment and continuity of the zero waste management system, which includes the processes of reducing waste, collecting separately at its source, temporary storage, separate collection, transportation and processing.

To register to the Zero Waste Information System and to ensure the traceability of the waste managed in this context.

Relevant legislation can be accessed at https://sifiratik.gov.tr/ and Zero Waste Directive which is binding for all public institutions
https://www.mevzuat.gov.tr/mevzuat?MevzuatNo=32659&MevzuatTur=7&MevzuatTertip=5

Minimization of other disposable items

Zero Waste Directive dictates the minimization of disposable items, made from plastic and paper.

METU INORGANIC WASTE AND RECYCLING POLICY

Middle East Technical University (METU) considers solid waste and recyclable products as a resource that will contribute to the quality of life, inclusive and sustainable economy, and integrity of nature in a way that supports sustainable development. While preparing action plans on solid waste and recycling, these three basic elements (quality of life, inclusive and sustainable economy, integrity of nature) reflecting the interdependent and interacting parts of sustainable development are taken into account, and none is more prominent than the other. METU solid waste and recycling policies are designed to guide all official institutions, organizations, businesses and individuals with which it cooperates. The relevant stakeholders are expected to use solid waste management system based on recycling waste, reusing, or not generating waste.

METU is committed to reuse solid waste as a resource and takes steps to encourage sustainable use of natural resources in its decision-making processes. It establishes systems that can make useful products from materials considered as waste but have natural value by reviewing them economically, environmentally and socially. In this way, it offers some facilities to create new job opportunities, use sustainable energy, protect human health and enhance environmental quality. METU has full responsibility to decrease the consumption of disposable materials from paper, plastic, and aluminium.

Our staff will carry out all internal and external correspondences using the "Electronic Document Management System". Educational materials in each course will be shared utilizing ODTUCLASS, the learning management system of METU. Necessary arrangements will be made for students to get minimum number of printout. Disposable and non-environmentally friendly service materials made of plastic, aluminum or foam cannot be used in canteens, cafeterias, restaurants and buffets located in the campus. These products cannot be sold in the markets in the campus. In all kinds of academic/social meetings and events to be held on the university campus, reusable service products will be preferred instead of disposable products. All suppliers will be expected to sell products in reusable or recyclable packages on the university campus.

Applications

In order to eliminate paper use, EBYS (E-Document Management Platform), Scientific Research Projects, Academic Performance and Publicaton Promotion and Scienitific Promotion processes are carried out using digital platforms.

https://ebys.metu.edu.tr, https://bapsis.metu.edu.tr, https://apsis.metu.edu.tr/

In order to avoid the use of single-use plastic bottles, METU offers free drinking water in all the fountains across campuses. Also the cafeterias does not offer plastic kitchenware to eliminate waste.

https://kafeterya.metu.edu.tr/odtu-kafeterya

ODTUDEN store offers products to replace single use items, the income form the slaes are transferred to university scholarship funds

https://odtuden.com.tr

As initiated by the METU Green Campus student association, the BPA-free and reusable bottles are sold as part of the Zero Waste initative.

Take urgent action to combat climate change and its impacts

https://sdgs.un.org/goals/goal13

Local education programmes on climate

METU Continuous Education Center (METU CEC) offers certificate program titled "Climate Change, Adaptation Policies and Turkey" for non-students. The purpose of the program is to train the staff of public institutions and organizations, the private sector, universities, research institutions, non-governmental organizations on issues of climate change, adaptation to the effects of climate change through strategy alignment, planning policies integrated with social and economic dimensions. This training program is a modular program prepared by METU Earth System Sciences Department.

https://sem.metu.edu.tr/egitim/iklim-degisikligi-sertifika-programi.html

Co-operative planning for climate change disasters

METU cooperates with the government in planning for climate change disasters through Disaster Management Implementation and Research Center. The activities of the research center is listed at http://dmc.metu.edu.tr/en/.

In addition, there are several ongoing research collaborations funded by the government on planning for climate change.

- **Third Country Training Programme on Disaster Risk Management and Building Disaster Resilient Communities** (TICA-JICA Cooperation Program Supported Project, 2019 – 2019)
- **Scenarios of Marine Biodiversity and Evolution under Exploitation and Climate Change** (TÜBİTAK International Multi-Cooperation Project, 2019 – 2022)
- **Assessment of Climate Change Impacts on Streamflow and Hydropower in Antalya, Turkey** (TÜBİTAK International Bilateral Joint Cooperation Program Project, 2019 – 2021)
- **Updating Guidelines for Provincial Risk Reduction Plan Preparation by Pilot Implementation Project**

Collaborations with the government
METU informs and supports local or regional government in local climate change disaster or risk early warning and monitoring through the work of its related research centers

- Disaster Management Implementation and Research Center (http://dmc.metu.edu.tr/en/.)
- DEKOSIM (http://dekosim.ims.metu.edu.tr/)

Environmental education collaborations with NGOs
METU collaborates with NGOs on climate adaptation. An example is the collaboration for the "Nature of Youth and the City" Erasmus+ Project by Nature Conservation Center, METU Ecosystem Implementation and Research Center (EKOSAM), Butterfly Conservation (UK), Anima Mundi (IT), Technological Education Institute of Thessaly (GR). The project aims to train and equip youngsters on sustainability and preservation of nature. https://odtudedoga.org

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt and reverse land degradation and halt biodiversity loss

https://sdgs.un.org/goals/goal15

OUTREACH: Supporting land ecosystems through education

Educational programmes on ecosystems

As an extension of EKOSAM, EKOSAM Student Community aims to protect the natural wealth and biological diversity of ecosystems, especially the METU campus, and to raise awareness by making environmental and nature-themed activities primarily for the students of METU and for people who visit and work in the campus (http://ekosam.metu.edu.tr/en/ekosam-student-club-0).

In addition, other student societies also offered educational programmes open to METU Community and the public. Examples include:

- *Ecology and Environmental Science Seminar*, Biology and Genetics Society April 02-16-23-30, 2019
- *Sustainability and Nature-Society-Economy Trio Seminar*, Green Campus Society December 23, 2019
- *Volunteerism the Nature Seminar*, April 18, 2019 Nature Research Society

In 2019, three particular events took place on METU Campus related to the sustainable use of land.

Species Count (Tür Say!)

In 2018 and 2019, Turkey's first bio blitz (Tür Say!) event took place at METU Campus as part of the "Nature of Youth and the City" Erasmus+ Project carried out by Nature Conservation Center, METU Ecosystem Implementation and Research Center (EKOSAM), Butterfly Conservation (UK), Anima Mundi (IT), Technological Education Institute of Thessaly (GR).

Counting species activity, also known as bioblitz (combination of the words "bio" meaning life and "blitz" meaning raid indicates that people discover the diversity of species in a certain place in a short time by intensively cooperating), has been around in many countries, including the United States and the United Kingdom, as a community science activity in order to increase public interest in nature. In this activity open to all the participants from all backgrounds, the living creatures observed in nature are identified by the help of experts, after a giving brief training to participants on Campus species.

May 26, 2019 Species Count (Tür Say!) event (Source: odtudedoga.org)

Plogging at Lake Eymir

Since May 2017, annual *Plogging (*"plocka upp" and "jogging") event takes place around Lake Eymir. (Source: https://kampus.metu.edu.tr/en/campus3/plogging-event-metu-eymir)

Annual Aforestation Festival

The main METU Campus is located on the West of Ankara, once a remote location which became the first ever university campus in Turkey. Inhabiting the steppes on Central Anatolia, the joint efforts of students

and personnel turned the dry land in to a large forested land which became the lungs of Ankara, transforming into one the largest artificial forests in the World[1].

The 39,280,000 square meter campus are also hosts a natural lake, Eymir, with an area of 1,090,000 square meters, surrounded by the METU Forest ([1] https://www.metu.edu.tr/system/files/odtu-kampus-haritasi.pdf). The construction of Ankara Campus began in late 1950s, in the outskirts of the Turkish Capital, Ankara. Its suburban setting turned to urban with the expansion of the city, beginning in the late 1990s and continues until this day.

METU Rector Kemal Kurdaş (1961-69) Planting the first trees of the METU Forest

METU Forestation Festival took place on October 30, 2019
(https://www.youtube.com/watch?v=NElWcISCqoM)

Activities to maintain and extend current ecosystems' biodiversity

To maintain and extend existing ecosystems and their biodiversity, of both plants and animals, METU undertakes research on ecosystems.

Ecosystem Implementation and Research Center (EKOSAM)

As one of many research centers at METU, the aim of EKOSAM is:

1. to investigate the structure, function, biodiversity and ecosystem services and products of aquatic, steppe and forest ecosystems, which are widespread in our country including METU campus,
2. to develop adaptation and mitigation proposals in our region, which is warming up today and will become even more hot and dry in the future, in order to preserve the structure and functions of these ecosystems,

[1] https://www.akdn.org/architecture/project/re-forestation-programme-metu

3. setting sustainable management objectives that will help to make optimal decisions that balance ecosystem conservation / restoration needs and socio-economic developments, and
4. to share the information with the society obtained from the researches in order to increase scientific awareness and to improve the activities of citizen science. (http://ekosam.metu.edu.tr/en/about)

Planning for local biodiversity

In order to preserve natural and architectural properties of the METU Campus, "METU Conservation Development Plan" was developed in 2014, with the collaboration of Ministry of Urban and Environmental Planning. The plan was revised in 2017.

https://www.metu.edu.tr/tr/duyuru/odtu-koruma-amacli-imar-plani-hakkinda-aciklama

In the construction of new buildings, decisions for location are based on METU Conservation Development Plan. Local biodiversity is also taken into consideration, especially the protection of the land classified as forest area is a priority.

METU NATURE and ECOSYSTEMS POLICY

METU campuses contain a very rich mosaic of land, lake and marine ecosystems that very few universities in the world have. The University adopts as a principle to use these ecosystems as natural laboratories to protect, develop and develop exemplary strategies for their sustainable use. In addition, it supports the studies at the institutional level for the formation of concrete principles for the following subjects and their implementation through practices.

Sustainable practices (such as plastic waste management, air pollutants emission limits) to prevent sea/water/air pollution caused by activities carried out on land.

Establishing observation and prediction systems to monitor the health of aquatic and marine ecosystems and sharing data openly over the web (example of Lake Eymir and DBE coast)

Developing an integrated management strategy specific to METU for the protection of land and sea creatures and ecosystems and ensuring its visibility on the relevant web pages.

Establishing a database on campuses' unique biodiversity, protecting endangered species determined by the International Union for Conservation of Nature (IUCN), and developing practices for protecting the ecosystem against invasive species (http://sustainablecampus.metu.edu.tr/en/policies).

Collaborations with the local government

Within the scope of the project "Building a Resilient City to Climate Change by Empowering Women", coordinated by Ankara, Çankaya Municipality, **Nature at METU** carried out a study in which it provided training together with climate change experts and raised awareness about climate change by playing games. After training kindergarten teachers were instructed to implement in their schools.

METU Institute of Marine Sciences (IMS) collaborates with local stakeholders, including Mersin Chamber of Commerce and Industry and Mersin Economy Platform in formulating the Blue Strategy to protect the ecosystem of East Mediterranean coast of Turkey.

https://www.mersinhaberci.com/haber/19857/byle-br-ar-geye-destek-salanmadi.html

METU IMS also signed “Clean Mediterranean” protocol with four municipalities of Antalya, Mersin, Adana and Hatay, to preserve the East Mediterranean Sea.

https://www.milliyet.com.tr/yerel-haberler/mersin/merkez/temiz-bir-akdeniz-icin-4-belediye-bir-arada-6092421

METU also collaborates with the Ankara Metropolitan Municipality to protect and develop the surroundings of Lake Eymir. (https://www.birgun.net/haber/abb-ve-odtu-den-eymir-isbirligi-286056) Another collaboration is with the Çankaya Munipality in Nature4Cities project mentioned in 11.4.7. (https://www.nature4cities.eu/post/ankara-%C3%A7ankaya-the-capital-of-turkey-is-seeking-for-nature-based-solutions).

METU cooperates with NGOs such Doğa Koruma Derneği (https://www.dkm.org.tr/) in carrying out *Species Count (Tür Say!) event (Source: odtudedoga.org).*

Promote peaceful and inclusive societies for sustainable development, provide access to justice for all and build effective, accountable and inclusive institutions at all levels

COLLABORATIONS

METU Faculty provides specific expert advice to local, regional or national government through policy guidance, participation in committees, provision of evidence. On-going consultancies in 2019 to government institutions include:

- The Council of State
- Ministry of National Education EU Commission
- International Organization of Migration
- Turkish State Railways
- Eskisehir Metropolitan Municipality
- Ankara Water and Sewer Authority
- Istanbul Metropolitan Municipality
- Mersin Metropolitan Municipality
- Turkish Army, General Staff

Policy- and lawmakers outreach and education

METU provides outreach, general education, upskilling and capacity-building to policy and lawmakers on relevant topics including economics, law, technology, climate change. An example is the METU Continuous Education Center (METU CEC) certificate program titled “Climate Change, Adaptation Policies and Turkey” for non-students.

The purpose of “Climate Change, Adaptation Policies and Turkey” Program is to train the staff of public institutions and organizations, the private sector, universities, research institutions, non-governmental organizations on issues of climate change, adaptation to the effects of climate change through strategy alignment, planning policies integrated with social and economic dimensions. This training program is a modular program prepared by METU Earth System Sciences Department.

https://sem.metu.edu.tr/egitim/iklim-degisikligi-sertifika-programi.html

Participation in government research

METU undertake policy-focused research in collaboration with government departments

- As part of the “Social Sciences and Humanities for Advancing Policy in European Energy (Shape Energy)” project participants form NGOs, government institutions and researchers were brought together at a conference to discuss possibilities of research collaborations among social seciens and humanities and STEM areas, as well as external stakeholders.

Other policy-focused research collaborations include

- BLACKSEA CONNECT – Coordination of Marine and Maritime Research and Innovation in the Black Sea (https://ims.metu.edu.tr/slider/black-sea-connect)
- SeaDataCloud-Further Developing the Pan-European Infrastructure for Marine and Ocean Data Management (https://www.seadatanet.org/About-us/SeaDataCloud/Partners)
- AQUACOSM - Network of Leading European AQUAtic MesoCOSM Facilities Connecting Mountains to Oceans from the Arctic to the Mediterranean (Project Partners: https://www.aquacosm.eu/project-information/aquacosm/)

Strengthen the means of implementation and revitalize the global partnership for sustainable development

https://sdgs.un.org/goals/goal17

Relationships with NGOs and government for SDG policy

METU has direct involvement with the SDG policy development processes of the Turkish government through research projects and other collaborative work:

"Climate Change and Our Seas" Workshop in collaboration with Turkish Marine Research Foundation

Scientific opinions that emerged after the workshop were collected in a book titled "Climate Change and Its Effects on Turkish Seas" and presented to the use of academic institutions, decision makers, voluntary organizations and students working on this subject.

The proceedings were gathered in a book, which can be downloaded (at https://tudav.org/wp-content/uploads/2021/04/iklim_kitap_tudav_odtu.pdf) and benefited free of charge from the Turkish Marine Research Foundation's website, provides ideas for the municipalities and relevant state institutions on adaptation to change, as well as the measures that can be taken with the effects of climate change on the marine ecosystem, our coasts, cultural heritage and human health. Recent studies show that the surface seawater temperature in the Mediterranean has increased by about 1.5°C over the past 50 years. Estimates show that sea level may rise by 1-2 meters in 2100, which will greatly affect the Mediterranean coastal population. In addition, at least half of the cities on the Mediterranean coast will be severely affected by climate change by 2050. Long-term measurement and monitoring studies are needed more than ever before in Turkish seas. All settlements on the coast, especially Istanbul, need to make detailed adaptation plans.

http://ims.metu.edu.tr/slider/iklim-degisikligi-ve-turkiye-denizleri-uzerine-etkileri-kitabimiz-yayinlandi

Blue Growth Initiative for Research and Innovation in the Black Sea

A Blue Growth Initiative for Research and Innovation in the Black Sea aims to advance a shared vision for a productive, healthy, resilient, sustainable and better valued Black Sea by 2030. The initiative will help to deeper connect Black Sea societies through a bridge of new knowledge, technologies and services. The initiative aims to foster human and infrastructures capacity building in coastal, marine and maritime sectors in view of unlocking unique opportunities for a sustainable and environmentally friendly blue growth in the Black Sea.

In 2017, an Initiative was launched and supported by the European Commission (EC) to develop a joint research and innovation agenda and guide national and EU-level policymakers named as, 'The Blue Growth Initiative for Research and Innovation in the Black Sea'. As highlighted in the Burgas Vision Paper, this expert working group consisted of experts from Black Sea coastal countries, (Republic of Bulgaria, Georgia, Romania, the Russian Federation, the Republic of Turkey and Ukraine, as well as the Republic of Moldova), in cooperation with marine experts from leading European marine institutes and

organisations, with the support of the European Commission. They produced the Burgas Vision Paper the key framework document for a shared vision of a productive, healthy, resilient, sustainable and better-valued Black Sea by 2030. The paper was launched during the European Maritime Day 2018 in Burgas, Bulgaria (May 2018). It addresses the key pillars on which a new Strategic Research and Innovation Agenda (SRIA) can be built on. This process was further supported by the Ministerial Declaration towards a Common Maritime Agenda (2018) for the Black Sea, endorsed by the same Black Sea countries.

http://connect2blacksea.org/research-and-innovation-in-the-black-sea-empowering-the-next-generation-for-a-healthy-resilient-and-productive-black-sea/

Implementation of Stock Assessment in Fisheries Activities (IFISH)

The objective of the project is to contribute to the gradual harmonization with EU legislation in the Republic of Turkey's fisheries policy. The project, which will be implemented in line with the general objectives of the EU's common fisheries policy, will provide the basis for a sustainable fisheries governance strategy. Thus, Turkey's fishing industry and the desired sustainability goals is to help develop the ecosystem approach.

The aim of the project is to improve the institutional capacity of the Ministry of Agriculture and Forestry and to increase stakeholder awareness in stock assessment and ecosystem monitoring in fisheries activities. The project has three components. These are ; strengthening the administrative capacity of the Ministry of Agriculture and Forestry for stock assessment in fisheries activities, ecosystem monitoring and management and the establishment of a comprehensive advisory board; data collection, verification, evaluation methodology development and stock assessment in fisheries activities, and stakeholder awareness and participation.

The project will focus on several key elements. The first of these is to provide training for fisheries managers and scientists with an ecosystem based approach in fisheries management. In this way, the importance of strong stock assessments to increase the usability of data in line with the principles of ecosystem-based fisheries management will be emphasized. Also, stakeholders were included in the fisheries management process to ensure the sustainability of marine resources in Turkey.

https://www.ifishproject.com/index.php?sid=111&asid=1&lang=0

METU also took part in the following list of funded projects in relation to SDGs:

Title	Project Type	Begin Date	End Date
Türkiye'deki Geleneksel Konutlar İçin İklim-Dayanımı, Koruma ve Konfor Amaçlı Sürdürülebilir Onarım Süreçleri	TUBITAK Project	September 2020	September 2022

Artificial Tissue Environments with Microfluidics for Next Generation Predictive Disease Models	TUBITAK Project	February 2020	February 2023
82 / 5000 Translation results Social Impact of Turkey Photovoltaic Technologies Platform Research Program	TUBITAK Project	December 2020	December 2024
Türk çocuklarının büyüme ve biyolojik olgunlaşma durumlarına göre motor koordinasyon, vücut kompozisyonu, fiziksel aktivite, fiziksel uygunluk ve fiziksel benlik algısındaki farklılıkların incelenmesi ve norm değerlerinin oluşturulması	TUBITAK Project	May 2020	November 2022
Su devrilmesi müdahale sistemi geliştirilmesi	Newton Programme Project	April 2020	April 2022
AQUACOSM-plus: Network of Leading Ecosystem Scale Experimental AQUAtic MesoCOSM Facilities Connecting Rivers, Lakes, Estuaries and Oceans in Europe and beyond	H2020 Project	April 2020	March 2024
Virüs mü Yoksulluk mu: Korona Virüs Salgınının Mevsimlik Gezici Tarım İşçileri ve Onların Çocukları ile Bitkisel Üretime Olası Etkileri Projesi - Hızlı Bir Değerlerndirme.	Project Supported by Private Organizations in Other Countries	March 2020	April 2020
Antalya Havzasında İklim Değişikliğinin Debi ve HES Enerji Üretimine Etkilerinin İncelenmesi	TÜBİTAK International Bilateral Joint Cooperation Program Project	August 2019	August 2021
Entegre İğne Kanatçıklı-Alüminyum Köpük Isı Kuyusunun Akış Ve Isı Transferi Davranışının İncelenmesi	TUBITAK Project	November 2019	October 2021
Genomic BIodiversity Knowledge for Resilient Ecosystems	TÜBİTAK - AB COST Project	March 2019	March 2023
Medikal Yapay Zeka Için Disiplinlerarası Araştırma Bağlantıları: Kas-İskelet Rahatsızlıklarının Yönetimi	Newton Programme Project	July 2018	July 2020
Derin Sinir Ağları Ile Videolarda Nesne Algılama	TUBITAK Project	April 2018	April 2021
Kiral Dihidronaftofuran ve Dihidrobenzofuran Türevlerinin Özgün Asimetrik Organokatalitik Domino Tepkimeleri ile Sentezi	TUBITAK Project	June 2018	June 2020
INSHIP: Integrating National Research Agendas on Solar Heat for Industrial Processes	H2020 Project	January 2017	December 2020

Improvements of Teaching Techniques by eye tracking in technology enhanced classrooms	Erasmus Project	September 2017	December 2020
Uygulamalı Eleman Metodu ile Barajların Göçme Davranışının İncelenmesi	TUBITAK Project	April 2017	May 2020
Alçak Gerilim Dağıtım Sistemi Verilerinin İzlenmesi Ve Kayıt Altına Alınması	TUBITAK Project	March 2016	April 2020
GLOCAL AGE: Global Framework of Student Capacity Development for Global Disaster Risk Reduction and Recovery Program, Japan (funded by Japanese Ministry of Education MEXT, project coordinator: Niigata University)	Project Supported by Public Organizations in Other Countries	March 2015	March 2020

Table produced by AVESIS Sustainability Module

International collaboration data gathering for SDG

METU is a member of Sustainable Development Solutions Network (SDSN) since 2016 (https://www.unsdsn.org/sdsn-members).

Also activities conducted by Institute of Marine Sciences produce data shared with other researchers, in relation to SDG 14.

1. ARGO Program

Argo is an international program that collects information from inside the ocean using a fleet of robotic instruments that drift with the ocean currents and move up and down between the surface and a mid-water level. Each instrument (float) spends almost all its life below the surface (https://argo.ucsd.edu/about/). METU Institute of Marine Sciences is one of the partners of the ARGO Program.

The first Argo swimmer in Turkish seas was released to the Black Sea in 2002 in partnership with METU-DBE, Marine Hydrophysical Institute (Sevastopol/Ukraine) and Washington University (USA). In the following period, a total of seven Argo swimmers were left in the Black Sea. Details of this study can be found at http://flux.ocean.washington.edu/metu/.

Within the scope of the DEKOSİM project, four of the six Argo devices purchased with the support of the Ministry of Development were left in the Black Sea and two in the Mediterranean, in order to measure the long-term and continuous current and physical parameters in the seas of Turkey, and measurement results began to be obtained via satellite. All Argo swimmers have sensors on them that measure temperature, conductivity (salinity), pressure, and dissolved oxygen.

Data is shared with other researchers at http://dekosim.ims.metu.edu.tr/dekosim/icerik/odtu-argo-programi.

2. Erdemli Time Series

Again, within the scope of DEKOSİM project, long-term observation infrastructure has a very important place. For this reason, the studies conducted in the past years were examined and the data collected in the same regions were compiled as a basis for long-term observation studies. Especially in Mersin Bay, where METU Marine Sciences Institute is located, physical, chemical and biological parameters have been collected since 1997 in the region from the shore to a water depth of 200 meters, despite various interruptions.

Named after the coastal town where METU IMS is located, the "Erdemli Time Series" (ETS) program has been launched to ensure that this existing data set is maintained more regularly and precisely. Within the scope of this program, physical parameters in the water column are measured weekly at eight stations along a profile from the shore to a water depth of 200 meters, corresponding to water depths of 20, 50, 75, 100, 125, 150, 175 and 200 meters, respectively. The most exposed station is located about 15 km from the coast. Regular flow measurements will begin to be taken along this long profile, which perpendicularly cuts the general water cycle of the Eastern Mediterranean. In addition to physical parameters, water sampling will be made from 10, 20, 30, 50, 75, 100, 150 and 200 meters water depths for chemical and biological parameters in monthly periods.

http://dekosim.ims.metu.edu.tr/dekosim/Erdemli-Zaman-Serisi

3. Float/Buoy Monitoring System

Within the scope of the DEKOSİM project, two buoy systems will be installed in the Black Sea and the Mediterranean for long-term and continuous measurement. One of the buoy systems will be installed in the Black Sea in front of Sinop, the other in the Mediterranean, in front of the METU Marine Sciences Institute campus in Mersin. The system, which will be installed at a depth of approximately 100 meters, 5 miles off the shore, has sensors to measure at surface, 10, 20, 30, 50, 75 and 100 meters. All sensors measure temperature and conductivity (salinity). Receivers at the surface, 50 and 100 meters can measure dissolved oxygen. In addition, chlorophyll and turbidity measurements will be made on the surface.

The cable carrying the float system is also used in data transmission from sensors carrying an inductive modem to the float on the surface. Meteorological measurement devices will be installed on the floater in accordance with the protocol signed with the General Directorate of Meteorology. Meteorological data will be published on the D-OMGI web page in real time. The products to be obtained from the oceanographic data will be published on the dekosim.ims.metu.edu.tr page.

http://dekosim.ims.metu.edu.tr/dekosim/Samandira

METU, as a body, initiate and participate in cross-sectoral dialogue about the SDGs. Below are two examples in relation to SDG 14.

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