

Prof. Dr. Volkan Ş. Ediger

Program's Director

As a vital input of the economy, energy is one of the most strategic tools for the sustainable development of countries. The present world energy system, which is about 90 percent dependent on fossil fuels, is not sustainable due to resource scarcity, local environmental problems, and global climate change. Another factor increasing the importance of energy is that in today's world, where natural gas is used as a transition fuel on the path towards a low-carbon energy system, the geopolitical rivalry between major energy players continues to deepen. This rivalry accelerates the struggle for resources and causes global economic and political destabilization. These challenges are harder to tackle in developing countries than in the industrialized world. As one of the most important emerging markets, the Turkish energy system can be used as an example to similar developing countries. One of the most important features of Turkey's energy system is high energy demand due to rapid development, which attracts the attention of the world as a rising market. Turkey's energy supplied from its domestic sources is, however, not enough to meet its growing demand. To meet this demand, Turkey needs to import about three quarters of its energy and this dependence on foreign resources threatens its energy security as well as the national security of the country. In the 21st century, no economy can be sustainable under such energy dependence circumstances.

Even though a number of graduate programs on energy have been launched in various countries in recent years, these programs are far from meeting the needs of the sector due to their contextual and structural features. They generally focus on a certain aspect of energy, neglecting its interdisciplinary nature.

It is expected that the Energy and Sustainable Development Thesis/Non- Thesis Master's Program, which was launched in the 2016-2017 academic year at Kadir Has University in Istanbul, will fill the gap in this area as the program brings together several disciplines in social sciences, physical sciences and engineering. It is also

important to point out that the program works in coordination with the Centre for Energy and Sustainable Development, and thus maintains strong ties with interdisciplinary research and practice.

The Energy and Sustainable Development Master's Program enables international students to specialize in various areas of energy. Students are provided with a wide range of departmental and non-departmental elective courses in addition to the compulsory courses in four main areas: energy science and engineering, energy finance and economics, management and policies of sustainable development, and energy security and geopolitics. In addition to the theoretical knowledge provided by the courses, students are taught through real life practice in seminars given by experts in the field.



ACADEMIC STAFF



Prof. Volkan Ş. Ediger, Energy Systems Eng. Dept.
Prof. Mitat Çelikpala, Department of International Relations
Assoc. Prof. A. Deniz Yücekaya, Industrial Engineering Dept.
Assoc. Prof. Cem Özen, Bioinformatics and Genetics Dep.
Assoc. Prof. K. Ali Akkemik, Department of Economics
Assoc. Prof. Meltem Ş. Ucal, Department of Economics

Asst. Prof. Emre Çelebi, Department of Industrial Engineering
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Asst. Prof. H. Akin Ünver, Department of International Relations
Asst. Prof. Tamer Dağ, Department of Computer Engineering
Lawyer Değer Boden, Part-time Instructor

ADVISORY COMMITTEE

Selahattin Anaç, PhD, Former General Manager of Turkish Coal Enterprises
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Mete Göknel, Energy Analyst
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Rıza Kadılar, PhD, Representative of Turkey at Natixis
Prof. Baha Karan, Hacettepe University, Faculty of Economics and Administrative Sciences
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Mehmet Ögütçü, The Bosphorus Energy Club, UK
Necdet Pamir, Bilkent University
Uygur Özemesi, PHD, General Director of Change.org
Prof. Osman Sevaioğlu, Electrical -Electronics Engineering Department of METU

CIRRICULUM

The Energy and Sustainable Development Master's Program, which was designed by taking the interdisciplinary nature of energy field into consideration, enables students to specialize in one of the four major tracks, including economy and markets, policy and geopolitics, sustainability and environment, and engineering and efficiency. The most important advantage of the program, which is open to students with bachelor degrees from different disciplines, is the opportunity provided to acquire expertise in energy and sustainable development, whose importance is continuously increasing. The program is designed to be conducted completely in English to increase the competitiveness of students in the careers they will pursue whether in Turkey or abroad. The program has thesis and non-thesis options to fulfil the varying needs of the students. For the thesis track Master's degree in the Energy and Sustainable Development Program, students are required to complete 24 course credits, attend non-credit seminars and thesis courses and complete their Master's thesis in accordance with the procedures indicated in the university regulations and directives. 12 out of the 24 credits must be gained from compulsory courses and the other 12 credits from the elective courses.

On the other hand, for the non-thesis track Master's degree, students are required to complete 30 credits, and successfully complete their graduation project. 12 out of the 30 credits must be gained from compulsory courses and 18 credits from the elective courses.

Compulsory Courses

ESE 510 Energy Science and Engineering
ESE 520 Energy Markets and Economy
ESE 530 Sustainable Energy Policies and Management
ESE 540 Energy Security and Geopolitics
ESE 590 Seminar
ESE 598 Graduation Project
ESE 599 Thesis

SCHOLARSHIP AND TUITION FEES

KHAS has an extensive scholarship program to support well-qualified international students in their studies at KHAS. The range of scholarship of graduate studies is 25%, 50% and 100%. Tuition waiver scholarships are available for all qualified applicants. The details are explained in <http://international.khas.edu.tr/27/tuition-fees> web page.

Departmental Elective Courses

ESE 511 Advanced Renewable Energy Technologies
ESE 512 Energy Modelling, Simulation, and Optimization
ESD 513 Computational Tools in Energy Science and Engineering
ESD 514 Advanced Wind Energy
ESD 521 Energy Project Development and Finance
ESD 522 Energy Stock Markets
ESD 523 Turkish Energy System
ESD 524 Energy Project Management and Law
ESD 525 Econometric Modelling for Energy Policy Evaluation
ESE 531 Energy Efficiency Management
ESE 532 Sustainable Energy and Society
ESD 533 Carbon Economy and Markets
ESE 541 Energy Security of Turkey
ESE 542 Energy Transportation and Logistics
ESD 543 Oil and Gas Pipelines
ESD 544 International Energy Policies
ESD 550 Special Energy Topics

Non-Departmental Elective Courses

IE 502 Engineering Project Management
IE 503 Engineering Optimization and Applications
IE 506 Financial Management
MIS 513 Project Management
IR 545 Energy Politics
IR 546 Eurasian Security and Geopolitics
IR 548 Middle Eastern Politics
IR 646 Eurasian Geopolitics
EC 522 Political Economy of Development
EC 526 International Economics
EC 540 Public Finance
EC 625 Economic Growth

APPLICATION REQUIREMENTS:

In order to be able to apply to the graduate programs at Kadir Has University, the criteria and requirements are stated comprehensively as in <http://international.khas.edu.tr/28/application-requirements> web page.



NEHIR GÜNDÜZ

Kadir Has University, Department of Political Science, BA'2016

After I graduate from the Department of Political Science at Kadir Has University, I intend to specialize in a related field. As the existence of mankind continues, production will continue too. Thus, the necessity of efficient energy sources will incrementally increase year by year. Therefore, I have decided to specialize in the field of energy, which is the primary factor that drives world politics and economics. The Energy and Sustainable Development Master's Program at Kadir Has University brings together the most successful academics in the field of energy. The program offers a great opportunity to study in interdisciplinary fields such as geopolitics, economics and engineering. Kadir Has University enables its students to specialize in such a complex field of energy and sustainable development.



KELECHI ABRAHAM OMYEMAUCHE

Ananbra State University, Mechanical Engineering Department, BSc'2015

I am so glad to be a student of this awesome department: Energy and Sustainable Development. It is a great place for those who want to gain knowledge on the importance of sustainable energy in the world. The greatest part of it is the positive attitudes of the director of the program, the academics and students. They are so friendly, ready to help and have helped me acquire the essential qualities I need for my career growth. From where I am coming, I think I have found another home here, because the love I am getting here is almost equal to the one at home, which makes it easier for me to quickly adapt. I am happy to be a student in such a department where I can work towards my career goals.



HAZAL MENGI

Istanbul Kültür University, Department of International Relations, BA'2015

The functionality of energy has increased dramatically in the 21st century, and energy has always been the most significant factor in the evolution of modern human history. Most disciplines in both natural sciences and social sciences are related to energy because of its close connection to technological progress and its impact on human life. As a young graduate of International Relations, I started my studies in the Energy and Sustainable Development Program due to my interest in examining energy policies of states and exploring energy's impact on human life. I believe that conducting academic studies on energy would be highly beneficial for the future of both Turkey and the World. There are not many energy-related Master's programs in Turkey, so I am very happy to be a part of this program at Kadir Has University.

CONTACT INFORMATION:

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Program's Web Page

<http://www.khas.edu.tr/911/enerji-ve-surdurulebilir-kalkinma-yuksekk-lisans-programi-tezli-tezsiz>

