



# Center for Energy and Sustainable Development

*“Interdisciplinary research of energy and sustainable Development”*

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M73 Advertising & Market Research  
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Technical Activities

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## Vision

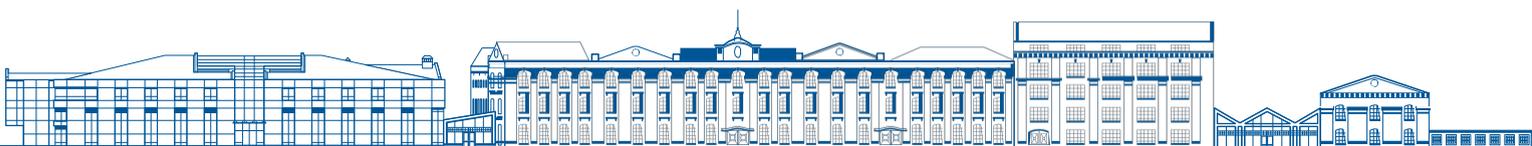
To be a world-renowned research and application center, to which the international community turns for reliable scientific analyses and evaluations based on interdisciplinary studies of energy and sustainable development.

## Mission

Through interdisciplinary educational and research activities on various energy issues at the local, regional, and global level, the center seeks to train the human power needed to solve the world's pressing energy problems and to share the data, interpretations, and analyses produced from its studies on energy and sustainable development with the national and international academic community, as well as with the public at-large.

## CESD Profile

One of the most active research centers of the Kadir Has University is the Center for Energy and Sustainable Development (CESD), which was established in 2015 for the purpose of contributing interdisciplinary research and development in the field of energy. CESD particularly conducts multidisciplinary research in sciences, engineering, social sciences and humanities to propose new solutions to the energy problems facing Turkey and the world. The center also aims at creating awareness on the relationship between energy and sustainable development and thus, influencing both national and international public opinion, as well as policy-makers and legislators through dissemination of its research activities. Five of the projects carried out at the center have been funded by European Union H2020 program, including GEOSMART-Technologies for geothermal to enhance competitiveness in smart and flexible operation, GEORISK-Developing geothermal and renewable energy projects by mitigating their risks, Open ENTRANCE-Open energy transition analyses for a low-carbon Economy, S-PARCS-Envisioning and Testing New Models of Sustainable Energy Cooperation and Services in Industrial Parks, and ALERT-Anatolian plateau climate and tectonic hazards. In addition to these, several projects were supported by the KHAS Scientific Research Projects (BAP) and the Scientific and Technological Research Council of Turkey (TÜBİTAK), the leading governmental R&D support institution. CESD is also very active in education and dissemination of the results of research, considering they are just as important as the research itself. The center's master's program in Energy and Sustainable Development seeks to help educate a new cadre of young professionals who can tackle the various energy challenges that we will face in twenty-first century. The center seeks to share the information, commentary, and analyses that emerge from these activities with both a national and international audience and help contribute to sustainable economic development. It also aims to strengthen the reputation of Kadir Has University in the field of energy, both in producing work that meets international standards and expanding the scope of the university's educational and research activities.



**Kadir Has University**  
**Center for Energy and Sustainable Development**

**PROFILES OF ACADEMICIANS**



**Prof. Volkan Ediger (Male)** has an MS degree from the Middle East Technical University, Ankara and a PhD degree from the Penn State University, State College. His professional career has been shaped by research, teaching, and consultancy simultaneously carried out at the Research Center of the Turkish Petroleum Corporation, the Middle East technical University, the Pennsylvania State University, and the Office of the President of the Republic of Turkey. Between 1998 and 2010, he was the first person to hold the position of the Energy Advisor to the President, where he had the chance to work with three successive presidents. He is currently the Founding Director of CESD-Center for Energy and Sustainable Development and Head of Energy Systems Engineering Department and at the Kadir Has University. Prof. Ediger serves as president and executive member at several scientific societies and NGOs and also editor, referee or scientific committee member of several national and international publications. He is active as moderator, panel discussant, and analyst in several panels, newspapers, and TV/Radio programs and has published around 20 books, booklets, and book chapters and more than 100 papers of which 30 are in the SCI/SSCI indexed journals. Prof. Ediger's research interests include energy transition, energy economy and sustainable energy development; energy policies and strategies; international energy relations; energy security and geopolitics; energy shift/substitution as well as oil and coal history; energy resources' reserve, exploration, production, and consumption; forecasting and modelling of energy production and consumption; energy indexing.



**Prof. Meltem Ucal (female)** is a professor of economics at the Department of Economics, Kadir Has University, Istanbul, Turkey. She has taught and performed research and outreach for over 20 years. She received her BA, MA and PhD in econometrics. She has lectured on econometrics at the Hochschule für Technik und Wirtschaft and Zeppelin Universität at various times. She has also been a visiting scholar in various EU countries such as Belgium, Spain, Italy, Hungary, Denmark, and Portugal. Since 2000 in Kadir Has University, she has served as chairperson of Finance and Office Management Departments and Department of Economics. Prof. Ucal manages prestigious international projects, some of them are UNDP, H2020 and others EU project and she is involved in various programs as a referee such as ERANET-Plus, H2020-COST Action, and TUBITAK. Prof. Ucal is a member of the editorial board of many national and international journals, such as the Eurasian Business Review. She received academic award due to her successful project on energy issues in 2017 for "Energy Efficiency" delivered by the Istanbul Chamber of Industry. She also received two education awards in 2012 and 2017 for "Best Evaluation Score of Teaching" delivered by the Kadir Has University. She has published more than 30 articles in prestigious academic journals. Her recent research interests include foreign direct investment, energy economics, and female labor force participation, gender wage gap, green growth & sustainable development, income inequality, applied econometrics.

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**Assoc.Prof. Ahmet Yucekaya (Male)** obtained his PhD degree from Auburn University, AL and his MSc degree from University of Pittsburgh. He has worked on the modelling and analysis of electric power systems in US PJM Market in his PhD research as well as an analyst in American Electric Power Company which is the largest power producer in USA. His research topics include transportation of fuel-coal considering emission and greenhouse gas constraints, emission trading and markets, scheduling of fossil fuel power plants, energy economics and policy. His expertise in developing models to minimize the emission outputs of the fossil fuel power plants will help us to develop models that will minimize the pollution outputs.



**Assoc.Prof. Gökhan Kirkil (Male)** obtained his PhD degree from University of Iowa in civil and environmental engineering and worked as a research staff member in Atmospheric, Earth and Energy Division at Lawrence Livermore National Laboratory for three years. He currently works as faculty member at Industrial Engineering Department and Center for Energy and Sustainable Development. He is the CESD coordinator of three ongoing H2020 projects, namely S-PARCS, Open Entrance and Geosmart. These projects are related to energy efficiency, energy modeling and geothermal energy, respectively. He has published more than 15 SCI/SSCI indexed journals related to energy and environment. He is the recipient of 2011 Karl Emil Hilgard Award from American Society of Civil Engineers for his novel work on computational modeling. His research interests include energy system modelling, renewable energy systems (especially hydro, wind and geothermal energies), energy economics, environmental modelling, urban engineering and air pollution. He has been teaching Thermodynamics and Heat Transfer, Energy Economics and Markets and Energy Modeling and Simulation courses at Kadir Has University for the past 5 years. His recent work is on modeling renewable energy transition scenarios for Turkey using Leap and Osemosys.



**Asst.Prof. Emre Celebi (Male)** received his PhD degree in management sciences from the University of Waterloo, ON, Canada, in 2011. Later, he had joined Kadir Has University as an assistant professor at the Industrial Engineering Department. His areas of research interests include models of energy markets, supply chain design/management problems, large-scale optimization/equilibrium problems, and algorithms for their solution. His recent research is in regional energy hubs, co-optimization of transmission/generation investments with market equilibrium models in electricity markets and open-source energy models.