

Tunç Durmaz

CONTACT INFORMATION	Yıldız Teknik Üniversitesi, Davutpaşa Kampüsü İktisadi ve İdari Bilimler Fakültesi, İktisat Bölümü, G2-101 34210 Esenler, İstanbul, TÜRKİYE	E-mail: tdurmaz@yildiz.edu.tr WWW: tuncdurmaz.com avesis.yildiz.edu.tr/tdurmaz
PERSONAL	Marital status: Married, two children Citizenship: Turkish	
RESEARCH INTERESTS	Economics of Climate Change, Technological Change and Green Growth, Circular Economy, Electricity Markets, Carbon Capture, Utilization, and Storage (CCUS), and Environmentally-Extended Input-Output Models.	
EDUCATION	Norwegian School of Economics (NHH) , Bergen, Norway, Ph.D. , November 2015 University of Southern California (USC) , Los Angeles, USA, M.A. , Economics, May 2009 Marmara University , İstanbul, Türkiye, M.A. , Economics, Jul 2007 Dokuz Eylül University , İzmir, Türkiye, B.S. , Economics (En.), June 2003	
WORK EXPERIENCE	Yıldız Technical University (YTU) , Associate Professor , Department of Economics Nov 2020 - to date, İstanbul, Türkiye Technology Development Foundation of Turkey (TTGV) , Consultant (<i>Climate Technologies Radar</i>), Nov-Dec 2024, Ankara, Türkiye Presidency of Strategy and Budget (SBB) , Rapporteur , Twelfth Development Plan (2024-2028) Growth Dynamics and Green Growth Specialization Commission Dec 2022 - June 2023, Ankara, Türkiye Institut National de L'Énergie Solaire , Visiting Professor , Solar Academy Graduate School Fall 2021 / Spring 2022 / Fall 2022 / Spring 2023 / Spring 2024 Le Bourget du Lac, France YTU , Assistant Professor , Department of Economics Sep 2016 - Nov 2020, İstanbul, Türkiye International Finance Corporation (IFC) - World Bank , Short-term Consultant Mar - Jun 2020, Washington, D.C., USA City University of Hong Kong , Postdoctoral Fellow , School of Energy and Environment, Aug 2015 - Aug 2016, Hong Kong SAR YTU , Research Scholar , Department of Economics Oct 2013 - Jul 2015, İstanbul, Türkiye Toulouse School of Economics , Visiting Fellow Sep 2012 - Mar 2013, Toulouse, France USC , Graduate Assistant , Department of Economics Aug 2007 - Dec 2008, Los Angeles, CA, USA YTU , Research-Teaching Assistant , Department of Economics Nov 2005 - Jul 2007, İstanbul, Türkiye Robert Bosch GmbH , Intern , Logistics Department Sep 2003 - Mar 2004, Salzgitter, Germany	
PUBLICATIONS	Generation failures, strategic withholding, and capacity payments in the Turkish electricity market, Energy Policy , Vol. 184, January 2024, 113897 AI Revolution and Coordination Failure: Theory and Evidence (with Burak Ünveren and Seçkin Sunal), <i>Journal of Macroeconomics</i> , Vol. 78, December 2023, 103561 Feed-in tariff policy in Hong Kong: Is it efficient (with Aude Pommeret and Prudence Dato), <i>City and Environment Interactions</i> , Vol. 10, April 2021, 100056	

Evaluating Carbon Capture and Storage in a Climate Model with Endogenous Technical Change (with Fred Schroyen), *Climate Change Economics*, Vol.11, 2020

Estimation of Residential Electricity Demand in Hong Kong under Electricity Charge Subsidies (with Aude Pommeret and Huseyin Tastan), *Energy Economics*, Vol. 88, May 2020, 104742

Levelized Cost of Consumed Electricity (with Aude Pommeret), *Economics of Energy & Environmental Policy*, Vol.9, No.1, 2020

Smart Grids and Renewable Electricity Generation by Households (with Aude Pommeret and Prudence Dato), *Energy Economics*, Vol.86, Feb 2020, 104511

A two-sector model of economic growth with endogenous technical change and pollution abatement (with Jean-Pierre Amigues), *Environmental Modeling & Assessment*, Vol. 24 (6), pp 703-725

Intermittent renewable electricity generation with smart grids (with Prudence Dato and Aude Pommeret) in *Climate and Energy protection in the EU and China*. Springer-Verlag, 2019

Environmental Catastrophes and Deep Uncertainties Surrounding the Economics of Climate Change in Environment and Sustainability. Peter Lang, 2019

The Economics of CCS: Why have CCS technologies not had an international breakthrough?, *Renewable & Sustainable Energy Reviews*, Vol.95, pp.328-340, 2018

Are households ready to pay for solar panels and smart grids? (with Aude Pommeret), *IAEE Energy Forum*, 1st Quarter, pp. 25-28, 2018

Non-Cooperative Duopoly Games under Uncertainty of Discount Rates in Firms' Strategic Decisions Theoretical and Empirical Findings Vol. 3. Bentham Science (2018).

Optimal storage under uncertainty: investigating the implications of frugality and prudence, *Economics Bulletin*, Vol. 37, Issue 3, pp.1624-1629, 2017

Strategic Dynamic Climate Policy: The Role of CCS, *Journal of Management and Economics Research*, Vol.15, pp.212-228, 2017

WORKS IN
PROGRESS

Empirical Insights into Economic Viability: Integrating Bitcoin Mining with Biorefineries Using a Stochastic Model (with Georgeio Semaan, Guizhou Wang, and Gopalakrishnan Kumar) (*under review*)

Comprehensive Technical and Economic Evaluations of Using Second-Life Batteries as Energy Storage in Off-Grid Applications: A Customized Cost Analysis (with Feyza Turan and Ali Rifat Boynuegri) (*under review*)

Plant Heterogeneity and CCS: Evaluating Investment, Abatement, and Policy Strategies (with Demet Taç and Unal Zengiobuz)

The Circular Bioeconomy: Concepts, Opportunities, and Limitations (*under review*)

Harnessing the Sun: Welfare Gains and Economic Incentives for Prosumers (with Aude Pommeret and Ian Ridley) (*under review*)

Recycling and Resource Optimization in a Circular Economy: An Analytical Exploration and Policy Analysis (with Ahmet Sahin)

A Simple Model of Car Purchase Decisions: Comparing Vehicles with Different Fuel Types

Electricity pricing policy for optimal decentralized generation and investments (with Aude Pommeret)

Precautionary Storage in Electricity Markets. FAERE Working Paper

RESEARCH
PROJECTS

2023: BioBarrier4Fiber (CORNET: COLlective Research NETworking): Multifunctional biobased water vapor barrier coatings for fiber based packaging materials (Economic Analysis). 04.2023 - to date

2021: Electricity Generation Failures, Strategic Capacity Withholding, and Capacity Remuneration Mechanism in Turkey. Project funded by Yildiz Technical University. 04.2021 - 04.2023.

2019: Turkish Capacity Remuneration Mechanism: An evaluation based on economics, environment, and energy security. Project funded by Greenpeace (Mediterranean). 12.2019 - 12.2020.

2017: Sustainably REducing energy poVerty (REVE), Agence nationale de la recherche. 12.2019 - 12.2020.

2015: General Research Fund (GRF) in Hong Kong, Irreversible decisions and thresholds under specific uncertainty: Designing the energy source mix for electricity generation.

2015: Center for Sustainable Energy Studies (CenSES), Research Area 3: Economic Analysis.

REFEREEING

Nature Energy; The Economic Journal; The Energy Journal; Resource and Energy Economics; Scandinavian Journal of Economics; Review of Industrial Organization; Energy Economics; Energy; Economics Bulletin; Environmental Modeling and Assessment; Cleaner Environmental Systems;

City and Environment Interactions; Natural Resource Modeling; Energy Sources, Part B: Economics, Planning, and Policy; Energy Policy

LECTURES,
CONFERENCES,
AND SEMINARS

2024: 5^{ème} Édition des Journées Scientifiques de L'économie Béninoise (JSEB), Cotonou, Benin Republic (presenter); The 31st TEA Conference on Economics, Fethiye, Türkiye, 31 Oct-2 Nov (presenter); The VII. International Conference on Economics, Eskişehir, Türkiye, May 31-Jun 02 (presenter); *Agriculture, Bioenergy, and Biomaterials in the Circular Bioeconomy* Workshop, 3-4 Oct 2024 (**Key-note speaker**), Ankara, Türkiye; TrANsMIT Training School on TEA for CCUS/NETs and process modelling, 1-5 July, Prague, Czechia (**lecturer**); TrANsMIT Cost Action CA21127 Working Groups meeting, Tennessee, UK, 14-15 March (**invited**); European Association of Environmental and Resource Economists (EAERE) 29th Annual Conference, 1-4 Jul(presenter), Leuven, Belgium;

2023: Bergen Economics of Energy and Environment Research Conference 2023 (BEEER 2023), 5-6 June (presenter); TrANsMIT COST Action (CA21127) Workshop on Understand synergies and differences of TEA of CCUS and NETs, Trondheim, Norway (**invited**); WIRE's MC Meeting & 2nd WGs Workshop (COST Action: CA20127), 29-30 Mar (poster presentation), Thessaloniki, Greece;

2022: WIRE's Working Groups Workshop (COST Action: CA20127), 6-7 Oct (Moderator for WG3), Naples, Italy (**invited**); International DAAD-TGU Conference on Economic Dimensions of Sustainability, 12-13 May, Istanbul, Turkey(**invited**)

2021: 40th Congress On Operations Research / Industrial Engineering, 4-7 Jul (presenter/Online), Istanbul, Turkey

2020: Scientific Solar Summer School, Plenary Lecture: Solar and Economy, Oct 21, Bourget-du-Lac, France (**invited**); 4th Annual Conference on Social Sciences (AICCS 2020), 10-11 Sep (presenter/Online), Istanbul, Turkey; The 5th AIEE Energy Symposium on Energy Security, 15-17 Dec (presenter/Online), Milan, Italy; CESifo Area Conference on Economics of Digitization, 19–20 Nov (Presenter/Online)

2019: 2019 Asset Conference, Oct 25-27, Athens, Greece; World Energy Strategies Congress and Exhibition (WESCE), Aug 27 Istanbul, Turkey (**invited**); EAERE 24rd Annual Conference, 26-29 Jun (presenter), Manchester, UK; Lunch Seminar, SCCER Competence Center for Research in Energy, Society and Transition (CREST), University of Basel, Feb 8, Basel, Switzerland (**invited**)

2018: International Conference on Economics Turkish Economic Association - ICE-TEA 2018, 1-3 Nov (presenter), Antalya, Turkey

2017: 4th FAERE Annual Conference, 12-13 Septembre, Nancy; EAERE 23rd Annual Conference, 28 Jun-01 Jul (presenter), Athens, Greece; EconAnadolu 2017, 11 - 13 May, Eskişehir, Turquie; 3rd International Conference on Applied Economics and Finance (ICOAEF 2017), 6 - 7 Decembre, Kyrenia, Cyprus

2016: The 65th Annual Meeting of the French Economic Association, 27-29 June (presenter), Nancy, France; European Association of Environmental and Resource Economists (EAERE) 22st Annual Conference, 22-25 Jun (presenter and discussant), Zurich, Switzerland; The 39th International Association for Energy Economics (IAEE) International Conference, 19 - 22 June (presenter), Bergen, Norway; Rokko Forum, Graduate School of Economics, Kobe University, 8 Jun, Kobe, Japan (**invited**)

2015: 10th Conference on The Economics of Energy and Climate Change, 8-9 Sep, Toulouse, France (**invited**); EAERE 21st Annual Conference, 24 - 27 Jun (presenter and discussant), Helsinki, Finland; Bergen Economics of Energy and Environment Research Conference 2015 (BEEER 2015), 4-5 May (presenter and discussant), Bergen, Norway; The 38th IAEE International Conference, 25 - 27 May (presenter), Antalya, Turkey

2014: 5th World Congress of Environmental and Resource Economists, 28 Jun - 02 Jul (presenter and discussant) Istanbul, Turkey; The 37th IAEE International Conference, Special PhD Session, 15 - 18 Jun (presenter), New York City, New York; BEEER 2014, 12-13 May (presenter and discussant), Bergen, Norway; The 36th Annual Meeting of the Norwegian Association of Economists, 6-7 Jan (presenter and discussant), Oslo, Norway; FIBE 2014, 9-10 Jan (presenter), Bergen, Norway

2013: EAERE 20th Annual Conference, 26 - 29 Jun (presenter and discussant), Toulouse, France; BEEER 2013, 13-14 May (presenter and discussant), Bergen, Norway; The Economics of Energy Markets, 17-18 Jan (discussant), Toulouse, France (**invited**)

2012: BEEER 2012, 15-16 May (presenter and discussant), Bergen, Norway; Nordic Workshop in Industrial Organization, NORIO VIII, 8-9 June (presenter), Copenhagen, Denmark

2011: Research Conference: Energy and the Environment, 20-21 Jan (presenter), Bergen, Norway

TEACHING AND
ADMINISTRATIVE
EXPERIENCE

CCUS TrANsMIT Training School

Teaching - Master: Economics of Carbon Capture - A Brief Intro

YTU, Department of Economics

Teaching - PhD: Advanced Environmental Economics; Advanced Microeconomics **Master:** Environmental Economics; Input-Output Analysis **Bachelor:** Economic Planning; Statistics; Energy and Natural Resource Economics; Environmental Economics; Microeconomics; Principles of Economics; Introduction to Environmental Economics; Economics of Regulation and Competition; Introductory Computer Science (in Matlab or Python)

Administrative: Vice Head of Department (2021 - 2023); Departmental Erasmus+ Coordinator (2017-2020)

YTU, Clean Energy Technologies Institute

Teaching - Master: Energy Economics and Climate Change Policy

Solar Academy Graduate School (USMB, CNRS AND CEA)

Teaching - Master: Economics of Energy and Climate Policies; Price Dynamic Modeling; Long Run Optimization (Dynamic Control); 100% Renewable Objective

NHH, Department of Economics

Graduate Assistant / Courses - Master: Optimization and Microeconomic Theory; Petroleum Economics; Growth and Architecture of Financial Systems

USC, Department of Economics

Graduate Assistant / Courses - Bachelor: Principles of Microecon.; Principles of Macroecon.

YTU, Department of Economics

Graduate Assistant / Courses - Bachelor: Mathematics for Economists I-II

HONORS AND
AWARDS

The Scientific and Technological Research Institution of Türkiye (TÜBİTAK), Above-Threshold-Award, 2023

TÜBİTAK, Coordinators Support Award, 2022

Erasmus+ Staff Mobility for Teaching Grant, IAE Savoie Mont Blanc, Annecy, France, Feb 2019

University Award, Publication Score, Yıldız Technical University, 2018

Best Paper Award: Ecological Economics, 3rd International Conference on Applied Economics and Finance, Dec 2017

Graduate Assistantship, Department of Economics, NHH, 2009-2013

Norges Bank Fund for Economics Research, 2012

Professor Wilhelm Keilhaus Memorial Fund for Economic Scientific Research, 2012

Graduate Assistantship, Department of Economics, USC, 2007-2008

PROFESSIONAL
ORGANIZATIONS
AND ACTIVITIES

Working Group 1 (WG1) Co-Leader, EU Cost Action, Techno-economic analysis of carbon mitigation technologies (TrANsMIT)

Topic Editor, Green Financing and Development, Frontiers in Environmental Science, 2024-to date

Field Editor, Yıldız Social Science Review, 2024-to date

Member: European Association of Environmental and Resource Economists (EAERE)
International Association for Energy Economics (IAEE)

COMPUTER
SKILLS

Modelling Languages and Applications

Matlab, Python, GAMS, Stata, Mathematica, \LaTeX , EViews

LANGUAGE
SKILLS

Turkish (native), English (fluent), Norwegian (advanced—Test i norsk/høyere nivå), German (advanced), Swedish (intermediate), French (pre-intermediate)