#### **Prof. DUYGU ERTEN**

### **Personal Information**

Web: https://avesis.medipol.edu.tr/derten

International Researcher IDs

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Publons / Web Of Science ResearcherID: L-7964-2016

ScopusID: 19639698400 Yoksis Researcher ID: 232781

### **Biography**

Duygu Erten worked at Medipol University Architecture and Civil Engineering Departments as an Associate Professor between 2015-2022. She is a climate champion with deep expertise in adaptation and mitigation dedicated to developing sustainable built environments. Her academic career is focused around sustainable design and construction management. She is an accredited Living Building Challenge expert as well as many other green business/building certifications. She bridges sectors and disciplines to make climate proposals actionable.

She completed her BS degree in Civil Engineering from Boğaziçi University in İstanbul and received MS and Ph.D. degrees from Rutgers University in USA in Civil and Environmental Engineering. While working for AECOM and BOVIS Lend Lease in their Los Angeles offices, Dr. Erten lectured as an Adjunct Faculty at USC. She later completed the executive program at Harvard University on Leadership in Sustainability. She served as the City Director of İstanbul for Clinton Foundation as C-40's implementation partner.

She has been teaching sustainability related courses at several Universities with ENVISION and LEED metrics. She served as the Vice Director of İKLIMER between 2018-2022 -a research center working on climate change research at İMU and served as the Chairwoman of Climate Change, Energy and Health Program. Her research interests are green design, construction and standards, circular economy, sustainability and resilience in the built environment and green finance.

#### **Education Information**

Doctorate, Rutgers, The State University of New Jersey, School of Engineering, CIVIL AND ENVIRONMENTAL, United States Of America 1990 - 1994

Undergraduate, Bogazici University, Mühendislik Fakültesi, İnşaat Mühendisliği Bölümü, Turkey 1984 - 1988

#### **Dissertations**

Doctorate, Effect of fines content on liquefaction potential of sands, Rutgers The State University, 1994

# **Research Areas**

Social Sciences and Humanities, Engineering and Technology

# **Academic Titles / Tasks**

Associate Professor, Istanbul Medipol University, Mühendislik Ve Doğa Bilimleri Fakültesi, İnşaat Mühendisliği Bölümü, 2015 - 2023

Lecturer PhD, University of Southern California, CIVIL ENGINEERING, CONSTRUCTION MANAGEMENT, 1999 - 2003
Research Assistant, Princeton University, Architecture And Engineering Joint Program, Architecture, 1988 - 1989

# Academic and Administrative Experience

Istanbul Medipol University, 2022 - Continues Istanbul Medipol University, 2019 - Continues

#### Courses

GREEN BUILDING DESIGN, CONSTRUCTION and STANDARDS, Undergraduate, 2021 - 2022

GRADUATION THESIS II, Undergraduate, 2021 - 2022

SCIENTIFIC ETHICS and RESEARCH TECHNIQUES, Postgraduate, 2021 - 2022, 2020 - 2021

INTRODUCTION TO GREEN ENGINEERING, Undergraduate, 2021 - 2022, 2020 - 2021

İNŞAAT VE YIKIM ATIKLARI, Undergraduate, 2021 - 2022, 2020 - 2021

GRADUATION THESIS I, Undergraduate, 2021 - 2022

CONSTRUCTION AND DEMOLITION WASTE, Undergraduate, 2021 - 2022, 2020 - 2021

SÜRDÜRÜLEBİLİR TASARIM İNŞAAT ve STANDARTLAR, Undergraduate, 2021 - 2022

YEŞİL MÜHENDİSLİĞE GİRİŞ, Undergraduate, 2021 - 2022, 2020 - 2021

İNSAN, MÜHENDİSLİK ve İKLİM DEĞİŞİKLİĞİ, Undergraduate, 2020 - 2021

HUMAN, ENGINEERING and CLIMATE CHANGE, Undergraduate, 2020 - 2021

GGY 406 GAYRİMENKUL VE VARLIK ANALİZLERİ II (AÇIK DERS) 1 kez 3 saat, Postgraduate, 2020 - 2021

SÜRDÜRÜLEBİLİR İNŞAAT, Undergraduate, 2019 - 2020

COMPUTER AIDED DESIGN, Undergraduate, 2018 - 2019

BİLGİSAYAR DESTEKLİ TEKNİK ÇİZİM, Undergraduate, 2018 - 2019

GREEN BUILDING DESIGN AND CONSTRUCTION, Postgraduate, 2018 - 2019

SUSTAINABLE BUILDINGS, Postgraduate, 2017 - 2018

COMPUTER AIDED DRAWING, Undergraduate, 2017 - 2018

YAPI SEKTÖRÜNDE SÜRDÜRÜLEBİLİRLİK:YEŞİL HASTANELER, Postgraduate, 2017 - 2018

STRÜKTÜR I, Undergraduate, 2016 - 2017

BUSINESS ETHICS, Postgraduate, 2016 - 2017

STRUCTURES I, Undergraduate, 2016 - 2017

INT. to ARCHITECTURAL TERMINOLOGY, Undergraduate, 2015 - 2016

TERMINOLOGY FOR ARCHITECTS, Undergraduate, 2015 - 2016

MALZEME ve TEKNOLOJİ, Undergraduate, 2015 - 2016

INTRODUCTION TO DESIGN II, Undergraduate, 2015 - 2016

MATERIAL and TECHNOLOGY, Undergraduate, 2015 - 2016

TASARIMA GİRİŞ II, Undergraduate, 2015 - 2016

MATH for ARCHITECTS, Undergraduate, 2015 - 2016

CE58R SP.TP. SUSTAINABLE BUILDINGS (BOĞAZİÇİ ÜNİVERSİTESİ), Undergraduate, 2013 - 2014

CE58R SP.TP. SUSTAINABLE BUILDINGS (BOĞAZİÇİ UNIVERSITY), Postgraduate, 2013 - 2014

CE58R SP.TP. SUSTAINABLE BUILDINGS (BOĞAZİÇİ ÜNİVERSİTESİ), Postgraduate, 2013 - 2014, 2012 - 2013

NON PROFIT MANAGEMENT, Undergraduate, 2010 - 2011, 2007 - 2008

FUNDRAISING STRATEGIES FOR NGOs, Undergraduate, 2009 - 2010

CONSTRUCTION MANAGEMENT, Postgraduate, 2001 - 2002, 2000 - 2001

# **Advising Theses**

Duygu E., Decarbonization through green retrofit in construction sector: A case study, Postgraduate, Ö.İDİL(Student), Continues

Duygu E., The Application of Sustainable Design Principles to Existing Education Buildings, Postgraduate, E.SILAY(Student), 2021

Duygu E., Vergleich der beiden am markt befindlichen zertifizierungs systeme BREEAM International EU retail und DGNB Handelsbauten Type II am Bersprel eines Shopping Centers in Kayseri, Postgraduate, H.GÜRLEYEN(Student), 2011

# Published journal articles indexed by SCI, SSCI, and AHCI

I. How can green building certification systems cope with the era of climate emergency and pandemics?

ERTEN D., Kılkış B.

Energy and Buildings, vol.256, 2022 (SCI-Expanded)

II. How green building performance levels address climate adaptation, climate mitigation and environmental sustainability?

ERTEN D.

International Journal of Global Warming, vol.28, no.4, pp.375-386, 2022 (SCI-Expanded)

III. Smart home innovative heat test analysis for heat storage and conductivity coefficients Erten D., Şen Z.

Sustainability (Switzerland), vol.12, no.4, 2020 (SCI-Expanded)

IV. Will it happen here?

ERTEN D., BARDET J.

CIVIL ENGINEERING, vol.69, no.12, pp.0-43, 1999 (SCI-Expanded)

### Articles Published in Other Journals

I. Sıfır Karbon Şehirler ve Sıfır Enerjili Binalar (Ulusal Hakemli Dergi) ÖZEL Sayı-I-Yenilenebilir Enerji ERTEN D.

YENİ TÜRKİYE, vol.117, no.27, pp.171-191, 2021 (Peer-Reviewed Journal)

II. Towards Zero Waste in Construction: A Case Study Using Green Building Certification Systems ERTEN D.

Dicle Üniversitesi Mühendislik Fakültesi Mühendislik Dergisi, vol.11, no.2, pp.875-888, 2020 (Peer-Reviewed Journal)

III. A Roadmap for Localizing and Harmonising Existing Green Building Rating Tools

Journal of Current Researches on Engineering, Science and Technology, vol. 4, no. 2, pp. 179-194, 2020 (Peer-Reviewed Journal)

IV. Türkiye için Yeşil Bina Sertifikası ve Çözüm Önerileri ERTEN D.

Yapı, no.329, pp.50-55, 2009 (Peer-Reviewed Journal)

### **Books & Book Chapters**

I. Single Family Home Rainwater Harvesting Systems ERTEN D.

in: HANDBOOK OF WATER HARVESTING AND CONSERVATION, SAEID ESLAMIAN, Editor, John Wiley & Sons,

Inc., Chichester, pp.5, 2021

#### II. İnşaatta net sıfıra doğru

ERTEN D.

in: AVRUPA YEŞİL MUTABAKATI KAPSAMINDA YEŞİL EKONOMİ, Sezgin H. F., Acı Y. E., Kuşcu A. Rana, Editor, NOBEL AKADEMİK YAYINCILIK, İstanbul, pp.99-127, 2021

### III. Yeşil işletmelerde Etik ve Sosyal Sorumluluk

DEMİR E., ALİEFENDİOĞLU Y., HANCIOĞLU Y., YEŞİLAYDIN G., ÇAVUŞ M. F., DEMİREL E. T., ERTEN D., ARI E. S., AYDINLI G., SONSUZ A. A., et al.

in: YESİL İŞLETME, Prof. Dr. Yeter USLU, Editor, Nobel Akademik Yayıncılık, Ankara, pp.195-218, 2019

### IV. Yeşil İşletmenin Kuruluş Süreci

ERTEN D.

in: YEŞİL İŞLETME, Yeter Uslu, Editor, NOBEL, İstanbul, pp.25-44, 2018

#### V. Yeşil İşletmenin Kuruluş Süreci

BAYTÖREN E., ÇAVUŞ M. F., DEMİREL E. T., ERTEN D., ARI E. S., DEMİR E., AYDIN G., YEŞİLAYDIN G., HANCIOĞLU Y., TANRIVERMİŞ Y., et al.

in: YEŞİL İŞLETME, DEMİR USLU, YETER, Editor, Nobel Akademik Yayıncılık, Ankara, pp.27-43, 2018

#### VI. Yeşil Bina Tasarımı

ERTEN D.

in: YEŞİL İŞLETME, Yeter Uslu, Editor, NOBEL, İstanbul, pp.195-218, 2018

### VII. YEŞİL BİNALAR

ERTEN D.

TC ÇEVRE VE ŞEHİRCİLİK BAKANLIĞI, Ankara, 2011

### VIII. Green Buildings

ELTROP L., ERTEN D., GOLDEMBERG J., KOCH A., PALADINO T., VİSVANATHAN B., BLYTH G.

in: TOWARDS A GREEN ECONOMY GREEN BUILDINGS, P. Rode, Ricky Burdett and Joana Carla Soares Gonçalves, Editor, UNITED NATIONS ENVIRONMENT PROGRAMME, Londrina, pp.335-371, 2011

# Refereed Congress / Symposium Publications in Proceedings

I. Insights into Deeper Decarbonization of the Building Environment: Retrofits and Embodied Carbon ERTEN D., ÖZSOY İ.

III. Uluslararası Gayrimenkul Geliştirme Ve Yönetimi Konferansı, Ankara, Turkey, 31 January 2023

II. Impact of Partial Replacement of In-situ Reinforced Concrete (ISRC) on Materials and Final Embodied Energy of the Building: A Case Study

ERTEN D., Baykal M. S., Karayiğit Ö., Erkan A. D.

7TH INTERNATIONAL PROJECT AND CONSTRUCTION MANAGEMENT CONFERENCE, İstanbul, Turkey, 20 - 22 October 2022, vol.1, pp.1330-1339

# III. A critical review of tools and barriers for green decision-making

ERTEN D.

Kent Araştırmaları Kongresi-7, Ankara, Turkey, 16 May 2022, vol.1, pp.1979-1988

IV. Key Indicators & Darket Uptake through Housing Green Mortgages

Paez C., Gonzalez A. G., ERTEN D., Cristoforetti S.

BEYOND 2020 - World Sustainable Built Environment conference, Gothenburg, Sweden, 2 - 12 November 2020

### V. Biophilic Design:Case studies from Turkey

ERTEN D., PARLAYAN C., SOYSAL S.

LIVABLE ENVIRONMENT and International Architecture - 6th international congress, Trabzon, Turkey, 25 - 28 September 2019, pp.596-608

VI. POTANSİYEL DÖNGÜSEL EKONOMİ FIRSATLARININ TESBİTİ: YEŞİL BİNA SERTİFİKA SİSTEMLERİ İLE BİR VAKA ANALİZİ ERTEN D.

10. ULUSAL KATI ATIK MİLLİ KOMİTESİ KONGRESİ (UYAK), Çanakkale, Turkey, 17 - 18 October 2019, vol.1

VII. Beşikten Beşiğe: Sıfır Atığa Doğru İnşaat Sektörü

ERTEN D.

9. ULUSAL KATI ATIK YÖNETİMİ KONGRESİ, Konya, Turkey, 01 June 2018

VIII. Konutta Çevresel Değerlendirme:ÇEDBİK ve BREEAM sistemlerinin karşılaştırmalı analizi ERTEN D.

1. KONUT KURULTAYI, İstanbul, Turkey, 10 - 11 May 2018

IX. Insights into Hotels with Green Building Certifications

ERTEN D.

WORLD SUSTAINABLE BUILT ENVIRONMENT CONFERENCE, HONG KONG, Hong Kong, 5 June - 07 July 2017

X. Importance of Integrating Green Building Requirements into Design, Construction and Consultant Contracts

ERTEN D.

SB16, İstanbul, Turkey, 13 - 15 October 2016, vol.1, pp.52-59

XI. A Critical review of Green Building Certification Systems Regarding Historical Buildings

SB16, İstanbul, Turkey, 13 - 15 October 2016, vol.1, pp.677-690

XII. CO2 Footprint of Geosynthetic Reinforced Retaining Walls

ERTEN D., GÜLER F. E.

6th Europian Geosynthetics Congress, Ljubljana, Slovenia, 25 - 28 September 2016, vol.1, pp.1414-1428

XIII. Hotels with green building certifications: case studies from Turkey

ERTEN D.

4th International Conference on Climate, Tourism, Recration, İstanbul, Turkey, 17 September 2015, vol.1, pp.140-142

XIV. GREEN CAMPUS DEVELOPMENT and GREENING EXISTING UNIVERSITY CAMPUSES CASE STUDIES FROM TURKEY

ERTEN D.

ISBS-2015, Ankara, Turkey, 28 May - 30 April 2015, pp.801-805

XV. International Green Building Certification Systems

ERTEN D.

International Conference on "The problems of Architecture and Urban Planning Today", Tiflis, Georgia, 16 - 19 April 2012

XVI. Perspectives From Turkey Sustainable City Making

BALTACI A., ERTEN D., AROLAT E., AVCI S.

NETHERLANDS ARCHITECTURE INSTITUTE CONFERENCE, Amsterdam, Netherlands, 12 - 14 May 2012, vol.1, pp.79-87

XVII. LEED ve BREEAM Sertifikalarında Enerji Performans Değerlendirilmesinin Karşılaştırılması YILMAZ A. Z., ERTEN D.

10. Ulusal Tesisat Mühendisliği Kongresi ve Sergisi, İzmir, Turkey, 13 - 16 April 2011

XVIII. INTERNATIONAL GREEN BUILDING CERTIFICATION SYSTEMS A COMPARATIVE APPROACH TO LEED AND BREEAM

ERTEN D.

ISBS-2010, Ankara, Turkey, 20 - 22 May 2010, vol.1

XIX. A review of International Green Building Certification Methods A roadmap for a certification system in Turkey

ERTEN D., KOBAŞ B., KIRK H.

Fifth International Conference on Construction in the 21st Century(CITC-V), İstanbul, Turkey, 20 - 22 May 2009, vol.1, pp.1701-1708

XX. A review of Green Building Movement Timelines in Developed and Developing Countries to Build an International Adoptation Framework

KORKMAZ S., ERTEN D., SYAL M., POTBHARE V.

Fifth International Conference on Construction in the 21st Century(CITC-V), Miami, United States Of America, 20 - 22 May 2009

#### XXI. ESTABLISHING BOARD OF REGISTRATION FOR PROFESSIONAL ENGINEERS IN TURKEY

ERTEN D., YALÇINER A. C.

A Scientific Assessment and Recommendations for Re-building, United States Of America, 20 - 22 May 1999, pp.205-212

### XXII. Liquefaction Potential of Silty Soils

ERTEN D., MAHER M.

7TH INTERNATIONAL CONFERENCE ON SOIL DYNAMICS AND EARTHQUAKE ENGINEERING, Southampton, England, 5 - 07 May 1995, pp.163-173

### XXIII. Effect of Fines Content on Ligefaction Potential of Sands

ERTEN D., MAHER M. H.

3rd International Conference on recent advances in Geotechnical Engineering, St. Louis, United States Of America, 3 - 05 April 1995, vol.3, pp.1061-1064

# **Artistic Activity**

ERTEN D., NTV Ortak Gelecek programı, June 2022

ERTEN D., 28. ALTIN ÇEKÜL YAPI KATALOĞU ÖDÜLLERİ, May 2022

ERTEN D., AKDENİZ ÜNİVERSİTESİ ÇEVRE HİZMET ÖDÜLLERİ, April 2022

ERTEN D., IPA III Döneminde "Rekabetçilik ve Kapsayıcı Büyüme" penceresi altındaki "özel sektörün geliştirilmesi, ticaret, araştırma ve inovasyon" üzerine "Döngüsel Yeşil Ekonomi, Kaynak Verimli Üretim ve Kümelenme" ÇALIŞTAY YÜRÜTÜCÜSÜ, June 2021

ERTEN D., 26. ALTIN ÇEKÜL YAPI KATALOĞU ÖDÜLLERİ, May 2021

ERTEN D., Kentsel Tasarım Proje Yarışması, May 2020