

## Assoc. Prof. AYŞEM BERRİN ÇAKMAKLI

### Personal Information

**Office Phone:** [+90 312 210 2245](tel:+903122102245)

**Email:** cakmakli@metu.edu.tr

**Web:** <https://avesis.metu.edu.tr/cakmakli>

### International Researcher IDs

ScholarID: CGCGdkcAAAAJ

ORCID: 0000-0001-8017-4120

Publons / Web Of Science ResearcherID: ABA-6154-2020

ScopusID: 57195071182

Yoksis Researcher ID: 183021

### Education Information

Post Doctorate, University of Texas at San Antonio, College of Architecture, Construction, and Planning, Architecture, United States Of America 2019 - 2020

Doctorate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Architecture, Turkey 2001 - 2007

Postgraduate, Middle East Technical University, Graduate School of Natural and Applied Sciences, Architecture (YI) (Tezli), Turkey 1997 - 2000

Undergraduate, Middle East Technical University, Faculty of Architecture, Department of Architecture, Turkey 1993 - 1997

### Foreign Languages

English, C1 Advanced

German, B1 Intermediate

### Dissertations

Doctorate, Life cycle assessment of building materials in hotel refurbishment projects: A case study in Ankara, Orta Doğu Teknik Üniversitesi, Graduate School of Natural and Applied Sciences, Yapı Bilimleri (Dr), 2007

Postgraduate, Sustainable Buildings and Building Materials: Environment, Human Health and Energy, Middle East Technical University, Graduate School of Natural and Applied Sciences, Mimarlık (YI) (Tezli), 2000

### Research Areas

Architecture, Building Information, Physical Urban Protection, Engineering and Technology

### Academic Titles / Tasks

Lecturer PhD, Middle East Technical University, Faculty of Architecture, Department of Architecture, 2010 - Continues

Assistant Professor, Atilim University, Fine Arts Faculty Of Design And Architecture, Department Of Interior Architecture And Environmental Design, 2010 - 2010  
Lecturer PhD, Cankaya University, Faculty Of Architecture, Department Of Interior Architecture, 2009 - 2010  
Lecturer PhD, Baskent University, Fine Arts Faculty Of Design And Architecture, Department Of Interior Architecture And Environmental Design, 2005 - 2009

## Academic and Administrative Experience

Head of Department, Middle East Technical University, Faculty of Architecture, Department of Architecture, 2024 - Continues  
Deputy Head of Department, Middle East Technical University, Faculty of Architecture, Department of Architecture, 2015 - 2024

## Advising Theses

Çakmaklı A. B., Kilkış Ş., Climate Change Awareness: Impacts on Building and Environmental Design, Doctorate, T.Tohumcu(Student), Continues  
Çakmaklı A. B., The importance of designing climate-resilient cities for future scenarios: Case of Antalya, Postgraduate, Ş.SİMRUY(Student), 2023  
Pekerikli M. K., Çakmaklı A. B., Improving indoor comfort through indirect measurement of physical activity: A case in sports environment, Postgraduate, S.BAŞÇOBAN(Student), 2023  
Gürsel Dino I., ÇAKMAKLI A. B., SUSTAINABILITY IN ARCHITECTURAL EDUCATION: THE IMPACT OF EDUCATION ON PERCEPTIONS OF SUSTAINABILITY, Postgraduate, A.NİLÜFER(Student), 2019  
Gürsel Dino I., Çakmaklı A. B., COLLABORATIVE WORKING SPACES: PROJECT ECOLOGIES AND MEANS OF INTERACTION AND COLLABORATION, Postgraduate, S.ERTAN(Student), 2019  
ÇAKMAKLI A. B., An Energy And Economic Efficiency Comparison Of The Building Envelope Of An Apartment Building In Ankara, Turkey, Postgraduate, M.SAEED(Student), 2014  
Çakmaklı A. B., Baş Bütüner F., The Integration of tall buildings with the urban environment: considering the key sustainability concepts, Postgraduate, T.TOHUMCU(Student), 2014  
ÇAKMAKLI A. B., Evaluation Of Natural Ventilation Systems In Tall Buildings With Considering Altitude Based Environmental Variations, Postgraduate, İ.KARADAĞ(Student), 2013  
ÇAKMAKLI A. B., An Investigation On The Performance Of Aluminium Panel Curtain Wall System In Relation To The Facade Tests,, Postgraduate, B.NUR(Student), 2013

## Jury Memberships

Competition, Çuhadaroğlu Öğrenci Proje Yarışması, Middle East Technical University, November, 2024  
Award, DEĞİŞİME ÖNCÜ OL! PANELDER ÖĞRENCİ YARIŞMASI, Middle East Technical University, August, 2022

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

- A spatio-temporal framework to assess urban heat island effect on Yeni Mamak urban transformation zone (Ankara, Türkiye)**  
Butuner F. B., ÇAKMAKLI A. B., Karakadılar A. C., Deniz E.  
OPEN HOUSE INTERNATIONAL, vol.49, no.4, pp.650-669, 2024 (AHCI)
- The diagonal axis from VERB to VOID: interdisciplinarity in basic design studio education**  
Çakmaklı A. B., Dino I. G., Daglioglu E. K., Pinar E., Arslan P. Y.  
ARCHNET-IJAR INTERNATIONAL JOURNAL OF ARCHITECTURAL RESEARCH, vol.17, no.4, pp.774-792, 2023 (AHCI)

- III. **The impact of architectural design studio education on perceptions of sustainability**  
Çalıkluşu A. N., Çakmaklı A. B., Gürsel Dino I.  
International Journal of Architectural Research: Archnet-IJAR, vol.17, no.2, pp.375-392, 2023 (AHCI)
- IV. **A CLIMATE-BASED CRITICAL ANALYSIS OF URBAN HEAT ISLAND ASSESSMENT METHODS AND MITIGATION STRATEGIES**  
Çakmaklı A. B., Rashed-Ali H.  
Journal of Green Building, vol.17, no.4, pp.129-149, 2022 (AHCI)
- V. **THE INTEGRATION OF TALL BUILDINGS IN URBAN ENVIRONMENT: CONSIDERING THE KEY SUSTAINABILITY CONCEPTS**  
TOHUMCU T., ÇAKMAKLI A. B.  
METU JOURNAL OF THE FACULTY OF ARCHITECTURE, vol.34, no.1, pp.163-186, 2017 (AHCI)

## Articles Published in Other Journals

- I. **İklim Değişikliği ve Yapılı Çevre: Sürdürülebilir Kalkınma Amaçları ve Net Sıfır Karbon Binalar (NZCB) Yaklaşımının İncelenmesi**  
TOHUMCU T., ÇAKMAKLI A. B.  
İdealkent, vol.16, no.43, pp.460-484, 2024 (Peer-Reviewed Journal)
- II. **Sürdürülebilir Kent, Topluluk ve Deprem İlişkisinin Elazığ Örneği Üzerinden Değerlendirilmesi**  
Ateş M. B., Çakmaklı A. B.  
EGE MİMARLIK, vol.1, no.121, pp.88-95, 2024 (Peer-Reviewed Journal)
- III. **An analysis of comparative studies on embodied carbon and embodied energy assessment of tall building structures**  
Fakioğlu Gedik B., Ay B. Ö., Çakmaklı A. B.  
MEGARON, vol.18, no.3, pp.387-400, 2023 (ESCI)
- IV. **Interface of the Natural Ventilation Systems with Building Management Systems**  
KARADAĞ İ., ÇAKMAKLI A. B.  
Periodica Polytechnica Architecture, vol.51, no.2, pp.178-188, 2020 (Peer-Reviewed Journal)
- V. **Kerkenes Eko-Merkezi**  
ÇAKMAKLI A. B., ÖZKAN S. T. E.  
EkoYapı Ekolojik Yapılar ve Yerleşimler, pp.112-116, 2011 (Peer-Reviewed Journal)
- VI. **Modern Binalar Hasta Ediyor**  
ÇAKMAKLI A. B.  
Şikayet Var, pp.41, 2006 (Peer-Reviewed Journal)
- VII. **Neden Sürdürülebilirlik? Neden Sürdürülebilir Bina Malzemeleri?**  
ÇAKMAKLI A. B.  
Ekoloji ve Mimarlık, Bülten, pp.20-22, 2003 (Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Environmental Analysis of Construction Materials: Material Specifications for Green Built Environment**  
Çakmaklı A. B.  
in: Green Building Management and Smart Automation, Arun Solanki, Anand Nayyar, Editor, IGI Global, Pennsylvania, pp.90-110, 2020
- II. **Different Strategies of Housing Design**  
Çakmaklı A. B. (Editor)  
Intech Open, London, 2019
- III. **Introductory Chapter: Healthy and Affordable Housing Strategies**

Çakmaklı A. B.

in: Different Strategies of Housing Design, Aysem Berrin Cakmakli, Editor, EBSCO , London, pp.3-7, 2019

IV. **Güneş Enerjili Seralar**

Çakmaklı A. B.

in: GÜNSERA, ÇETİN GÖKSU, Editor, Diğer, Ankara, pp.27-33, 2014

V. **1. ULUSLARARASI LİSANSÜSTÜ ARAŞTIRMALARI SEMPOZYUMU YAPILI ÇEVRE**

ELİAS ÖZKAN S. T., ÇAKMAKLI A. B., TANER Ö.

Metu Press Yayınları, Ankara, 2010

VI. **Proceedings Of The 1st International Graduate Research Symposium On The Built Environment**

ELİAS ÖZKAN S. T., ÇAKMAKLI A. B., SUMMERS F.

Metu Mf Press, Ankara, 2010

## **Refereed Congress / Symposium Publications in Proceedings**

I. **Kentsel Dönüşüm Sürecinde İklim Odaklı Yaklaşımlar: Yeni Mamak Kentsel Dönüşüm Alanı / Climate-Responsive Approaches in Urban Transformation: Yeni Mamak Urban Transformation Zone**

ÇAKMAKLI A. B., BAŞ BÜTÜNER F., Deniz E., Karakadılar A. C.

VII. Kent Araştırmaları Kongresi - VII. Congress on Urban Studies, Ankara, Turkey, 16 - 18 May 2022, vol.1, pp.387-398

II. **Embodied Greenhouse Gas Assessment of Tall Building Structures: An Overview of Comparative Studies**

Faknoğlu Gedik B., Ay B. Ö., Çakmaklı A. B.

Challenges for the Next Generation Built Environment (NEXT BUILT), Bologna, Italy, 13 May 2022

III. **Urban Heat Island Phenomenon: A Review and Comparison of Assessment Methodologies**

ÇAKMAKLI A. B., Rashed-Ali H.

ARCC 2021: Performative Environments; Technological, Organizational, Cultural Performances, TUCSON / ARIZONA, United States Of America, 7 - 10 April 2021, vol.1, pp.231-238

IV. **Paylaşımlı Çalışma Mekanları (Coworking Spaces)**

ERTAN S., GÜRSEL DİNO İ., ÇAKMAKLI A. B.

4. Ulusal Yapı Kongresi Ve Sergisi, Antalya, Turkey, 6 - 08 December 2018

V. **Sürdürülebilir Kalkınma Hedeflerinin Yüksek Öğretime Yansımaları: Mimarlık Eğitimi Örneği**

ÇALIKUŞU A. N., GÜRSEL DİNO İ., ÇAKMAKLI A. B.

4. Ulusal Yapı Kongresi Ve Sergisi, Antalya, Turkey, 6 - 08 December 2018

VI. **Impacts Of Recently Developed Squatter Settlements Transformation Projects On Urban Heat Islands: A Comparative Study In The City Of Ankara,**

Çakmaklı A. B., Baş Bütüner F.

Beyond All Limits Congress : International Congress On Sustainability In Architecture, Planning And Design, Ankara, Turkey, 17 - 19 October 2018, vol.1, pp.220-225

VII. **Paylaşımlı Çalışma Mekanları(Co-working Spaces)**

ERTAN S., GÜRSEL DİNO İ., ÇAKMAKLI A. B.

4. Ulusal Yapı Kongresi ve sergisi, Antalya, Turkey, 6 - 08 December 2018, pp.245-257

VIII. **STRATEGIES FOR SUSTAINABLE TALL BUILDINGS IN HISTORICAL URBAN ENVIRONMENT**

ÇAKMAKLI A. B., TOHUMCU T.

4th International Conference The Importance of Place: Cities and Cultural Landscapes: between recognition, preservation and usage;, Sarajevo, Bosnia And Herzegovina, 20 - 23 October 2017

IX. **Impacts of Recently Developed Squatter Settlements Transformation Projects on Urban Heat Islands: A Comparative Study in the City of Ankara**

Çakmaklı A. B., Baş Bütüner F.

BEYOND ALL LIMITS 2018: International Congress on Sustainability in Architecture, Planning, and Design, Ankara, Turkey, 17 October - 19 June 2018

- X. **An Energy and Economic Comparison of Building Envelope Types in Ankara**  
SHORBAGI M. I., ÇAKMAKLI A. B.  
II. International Sustainable Buildings Symposium 2015, Ankara, Turkey, 28 - 30 May 2015
- XI. **The Integration of Tall Buildings with the Urban Environment Considering the Key Sustainability Concepts**  
TULU T., ÇAKMAKLI A. B.  
II. International Sustainable Buildings Symposium 2015, Ankara, Turkey, 28 - 30 May 2015, pp.193-202
- XII. **The Kerkenes Eco-Center**  
ÇAKMAKLI A. B., ÖZKAN S. T. E.  
3. International Green Building Summit, İstanbul, Turkey, 20 - 21 February 2014
- XIII. **A Sustainable Local Development Model: "Improvement of the solar Powered Devices in Yozgat Şahmuratlı Village" / Sürdürülebilir Bir Yerel Kalkınma Modeli: "Yozgat-Şahmuratlı Köyü'nde Güneş Enerjili Tasarımların Kullanımının Gösterimi ve İyileştirilmesi**  
Ülgen A., Summers F., Çakmaklı A. B., Mutaf G.  
9. Ulusal Çevre Mühendisliği Kongresi, Samsun, Turkey, 5 - 08 November 2011, vol.1, pp.132-139
- XIV. **Environmental Assessment Systems of Buildings**  
ÇAKMAKLI A. B.  
International Sustainable Buildings Symposium 2010, Ankara, Turkey, 26 - 28 May 2010, pp.539-543
- XV. **The Necessity of Green Architecture and Its Principles**  
ÇAKMAKLI A. B.  
International Ecological Architecture and Planning Symposium 2009, Antalya, Turkey, 22 - 25 October 2009, pp.409-415
- XVI. **The Importance of LCA and Service Life Prediction in Sustainable Design**  
ÇAKMAKLI A. B.  
11th International Conference on Durability of Building Materials and Components, İstanbul, Turkey, 11 - 14 May 2008, vol.4, pp.1627-1638
- XVII. **Design of Living Spaces in Contemporary Residential Architecture**  
ÇAKMAKLI A. B., ÖZKAN S. T. E.  
18. International Building and Life Congress, Bursa, Turkey, 23 - 25 March 2006, pp.27-35
- XVIII. **Hotel Renovation Projects and LCC**  
ÖZKAN S. T. E., ÇAKMAKLI A. B.  
CIB W107 International Symposium on Construction in Developing Economies: New Issues and Challenges,, Santiago, Chile, 17 - 19 January 2006, pp.45-52
- XIX. **Sürdürülebilir ve Ekolojik Yüzey Malzemeleri**  
ÇAKMAKLI A. B., DEMİRBİLEK F. N.  
Kuram ve Uygulama: Mimari Biçimlendirmede Yüzey Sempozyumu, Ankara, Turkey, 7 - 09 October 1999, pp.266-275

## Other Publications

- I. **Kayseri İli Kocasinan İlçesi Sahabiye ve Fatih Mahalleleri Kentsel Dönüşüm Uygulamalarının Etkilerinin Değerlendirilmesi, KAYSERİ İLİ SAHABIYE VE FATİH MAHALLELERİ'NİN KENTSEL YENİLEME KAPSAMINDA DEĞERLENDİRİLMESİNE İLİSKİN TEKNİK, HUKUKİ VE BİLİMSEL İNCELEME VE DEĞERLENDİRME RAPORU**  
Tanrıvermiş H., Tanrıvermiş Y., Çakmaklı A. B.  
Technical Report, pp.1-130, 2015

## Supported Projects

ÇAKMAKLI A. B., BAŞ BÜTÜNER F., KARAKADILAR A. C., DENİZ E., Project Supported by Higher Education Institutions, Gecekondu Alanları için Önerilen Kentsel Dönüşüm Uygulamalarının Kentsel Isı Adaları Üzerine Etkileri, 2018 - 2021

Elias Özkan S. T., Çakmaklı A. B., TÜBİTAK International Multi-Cooperation Project, Sürdürülebilir Şehir de Yenilikçi Enerji Adaları Olan Akıllı Biyoiklimsel Ve Düşük Karbonlu Kentsel Alanlar, 2016 - 2018

ÇAKMAKLI A. B., PEDERGNANA M., Project Supported by Higher Education Institutions, Post-occupancy evaluation of straw-bale buildings in Turkey, 2016 - 2017

Elias Özkan S. T., Çakmaklı A. B., Project Supported by Higher Education Institutions, Post occupancy evaluation of strawbale buildings in Turkey , 2016 - 2016

Çakmaklı A. B., Tanrıvermiş H., Municipality, Kayseri İli Kocasinan İlçesi Sahabiye ve Fatih Mahalleleri Kentsel Dönüşüm Uygulamalarının Etkilerinin Değerlendirilmesi Projesi, 2015 - 2015

Çakmaklı A. B., Tanrıvermiş H., Municipality, Emlak Vergisine Yönelik Olarak Binaların Mevcut Sınıflandırma Sistemi ve Sorunları İle Belediyelerin Emlak Vergisi Sisteminin İyileştirilmesine Yönelik Yeni Sınıflama Sisteminin Geliştirilmesi ve Güncelleme Gerekliliği , 2013 - 2015

ÇAKMAKLI A. B., ASLAN E., FARZIN MOGHADDAM M., Pedernana M., Turhan F., Deljavan N., Project Supported by Higher Education Institutions, Thermal Performance of Buildings with Passive Solar Gains, Insulation and Energy Efficient Heating Systems, 2014 - 2014

ÇAKMAKLI A. B., Project Supported by Other Private Institutions, Kerkenes Eko Merkez Projesi, 2010 - 2014

Korkusuz A., Çakmaklı A. B., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, Yozgat Sorgun'da Güneş Enerjili Tasarımların İyileştirilmesi ve Markalaşma Altyapısının Kurulması, 2008 - 2010

## Scientific Refereeing

Project Supported by Higher Education Institutions, BAP Research Project, Cankaya University, Turkey, November 2024

Project Supported by Higher Education Institutions, BAP Research Project, Cankaya University, Turkey, February 2024

Civil Engineering and Architecture, Other Indexed Journal, January 2021

METU JOURNAL OF THE FACULTY OF ARCHITECTURE, Journal Indexed in AHCI, December 2020

## Scientific Consultations

TÜSSİDE, Scientific Consultancy, Middle East Technical University, Faculty of Architecture, Department of Architecture, Turkey, 2021 - 2021

## Metrics

Publication: 39

Citation (WoS): 3

Citation (Scopus): 15

H-Index (WoS): 2

H-Index (Scopus): 3

## Congress and Symposium Activities

2020 Southwest Fulbright Symposium, Panelists, Texas, United States Of America, 2020

3. International Green Building Summit, Panelists, İstanbul, Turkey, 2014

## Scholarships

Fulbright Visiting Scholar , Fulbright Program, 2019 - 2020

## **Non Academic Experience**

University of Texas at San Antonio