

# Prof. Mine Özkar Kabakçioğlu

## Personal Information

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## Education Information

Doctorate, Massachusetts Institute Of Technology, Mimarlık: Hesaplama, United States Of America 1999 - 2004

Post Graduate, Massachusetts Institute Of Technology, Mimarlık, United States Of America 1997 - 1999

Under Graduate, Orta Doğu Teknik Üniversitesi, Mimarlık Fakültesi, Mimarlık Bölümü, Turkey 1993 - 1997

## Foreign Languages

English

## Academic Titles / Tasks

Professor, İstanbul Teknik Üniversitesi, Mimarlık Fakültesi, Mimarlık Bölümü, 2016 - Continues

Professor, Carnegie Mellon University, School Of Architecture, Architecture Codelab, 2018 - 2019

Associate Professor, İstanbul Teknik Üniversitesi, Mimarlık Fakültesi, Mimarlık Bölümü, 2011 - 2016

Associate Professor, Massachusetts Institute Of Technology, Mimarlık, Mimarlık, 2013 - 2013

Assistant Professor, Orta Doğu Teknik Üniversitesi, Mimarlık Fakültesi, Mimarlık Bölümü, 2006 - 2011

Lecturer PhD, Orta Doğu Teknik Üniversitesi, Mimarlık Fakültesi, Mimarlık Bölümü, 2004 - 2006

## Professional Experience

BAP Scientific Commissioner, İstanbul Teknik Üniversitesi, Rektörlük, 2017 - Continues

Ethics Committee Member, İstanbul Teknik Üniversitesi, Sosyal Ve Beşeri Bilimler İnsan Deneyleri Etik Kurul, 2014 - 2018

Fakülte Yönetim Kurulu Üyesi, İstanbul Teknik Üniversitesi, İtü Mimarlıkta İleri Teknolojiler Araştırma Merkezi , 2014 - 2016

Deputy Head of Department, Orta Doğu Teknik Üniversitesi, Mimarlık Fakültesi, Mimarlık Bölümü, 2007 - 2009

## Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- **Cultivating the critical imagination: postdisciplinary pedagogy in a computational design laboratory**  
Cardoso Llach D., Özkar M.  
Digital Creativity, no.1, pp.1-20, 2019 (Journal Indexed in AHCI)
- **Shape computations with NURB curves**  
ENSARI E., Ozkar M.  
AI EDAM-ARTIFICIAL INTELLIGENCE FOR ENGINEERING DESIGN ANALYSIS AND MANUFACTURING, vol.32, pp.282-294, 2018 (Journal Indexed in SCI)
- **A Thirteenth-Century Dodecahedron in Central Anatolia: Geometric Patterns and Polyhedral Geometry**  
Ozgan S. Y. , Ozkar M.  
NEXUS NETWORK JOURNAL, vol.19, pp.455-471, 2017 (Journal Indexed in SCI)
- **Schematizing Basic Design in Ilhan Koman's "Embryonic" Approach**  
Gursoy B., Ozkar M.  
NEXUS NETWORK JOURNAL, vol.17, pp.981-1005, 2015 (Journal Indexed in SCI)
- **Visualizing making: Shapes, materials, and actions**

Gursoy B., Ozkar M.

DESIGN STUDIES, vol.41, pp.29-50, 2015 (Journal Indexed in SCI)

- **A Hermeneutical Sketch of Design Computation**

Gürer E., Özkar M., Çağdaş G.

Metu Journal Of The Faculty Of Architecture, vol.32, no.1, pp.165-183, 2015 (Journal Indexed in AHCI)

- **Weighted shapes for embedding perceived wholes**

Keles H. Y. , Ozkar M., Tani S.

ENVIRONMENT AND PLANNING B-PLANNING & DESIGN, vol.39, pp.360-375, 2012 (Journal Indexed in SSCI)

- **Visual Schemas: Pragmatics of Design Learning in Foundations Studios**

Ozkar M.

NEXUS NETWORK JOURNAL, vol.13, pp.113-130, 2011 (Journal Indexed in SCI)

- **TOWARDS HANDS-ON COMPUTING IN DESIGN: AN ANALYSIS OF THE HAPTIC DIMENSION OF MODEL MAKING**

Zaman C. H. , Ozkar M., Çağdaş G.

METU JOURNAL OF THE FACULTY OF ARCHITECTURE, vol.28, pp.209-226, 2011 (Journal Indexed in AHCI)

- **Embedding shapes without predefined parts**

Keles H. Y. , Ozkar M., Tari S.

ENVIRONMENT AND PLANNING B-PLANNING & DESIGN, vol.37, pp.664-681, 2010 (Journal Indexed in SSCI)

- **Modal relationships as stylistic features: Examples from Seljuk and Celtic patterns**

Ozkar M., LEFFORD N.

JOURNAL OF THE AMERICAN SOCIETY FOR INFORMATION SCIENCE AND TECHNOLOGY, vol.57, pp.1551-1560, 2006 (Journal Indexed in SCI)

## Articles Published in Other Journals

- **Visual Rules for Socio-Spatial Analysis: Inferring a Grammar of Use in an Inhabited Climat de France**

Rezoug A., Özkar M.

Dearq, pp.50-61, 2020 (Journal Indexed in ESCI)

- **The role of interpretation in basic design**

Gürer E., Özkar M., Çağdaş G.

A/Z ITU Journal of the Faculty of Architecture, vol.11, pp.158-171, 2014 (Refereed Journals of Other Institutions)

- **Sayısala Sayısal Olmayan Bir Arayüz: Temel Tasarım**

Özkar M.

Mimarlık, pp.31-32, 2005 (National Non-Refereed Journal)

- **Anarchic Uncertainty**

Özkar M.

Thresholds, pp.24-29, 2001 (International Refereed University Journal)

## Books & Book Chapters

- **Computer-Aided Architectural Design. Future Trajectories**

Çağdaş G., Özkar M., Gül L. F. , Gürer E.

Springer, London/Berlin , Berlin, 2017

- **Rethinking Basic Design in Architectural Education**

Özkar M.

Routledge, London/New York , Londra, 2017

- **Material Computability of Indeterminate Plaster Behavior**

Aydın A., Özkar Kabakçioğlu M.

in: Computer-Aided Architectural Design: The Next City – New Technologies and the Future of the Built

Environment, G. Celani, D. M. Sperling, J. M. S. Franco, Editor, Springer, London/Berlin , Berlin, pp.582-589, 2015

- **Formal Descriptions of Material Manipulations: An Exploration with Cuts and Shadows**

Gürsoy B., Jowers I., Özkar Kabakçioğlu M.

in: Computer-Aided Architectural Design: The Next City – New Technologies and the Future of the Built Environment, G. Celani, D. M. Sperling, J. M. S. Franco, Editor, Springer, London/Berlin, Berlin, pp.439-457, 2015

- **Repeating Circles, Changing Stars: learning from the Medieval art of computation**

Özkar M.

in: Digital Da Vinci: Computers in the Arts and Sciences, Newton Lee, Editor, Springer, London/Berlin, Londra, pp.49-64, 2014

- **Planning Curriculum Elements for an Integration of Digital Design Knowledge to Design Thinking**

Gönenç Sorguç A., Özkar M., Uçar B., Arslan Selçuk S.

in: MIMED Forum IV: Flexibility in Architectural Education, B. Bolak Hisarligil, S. and O. Turan, Editor, Cambridge Scholars Publishing, New Castle Upon Tyne, pp.280-288, 2013

- **Shaping design teaching: Explorations into the teaching of form**

STEINO N., Özkar M.

Aalborg University Press, Aalborg, 2012

- **Soyut Düşünme ve Yaparak Öğrenme: Temel Tasarım Eğitimi'nin Amerika'daki Başlangıçları**

Özkar M.

in: Bauhaus: Modernleşmenin Tasarımı: Türkiye'de Mimarlık, Sanat, Tasarım Eğitimi ve Bauhaus, Artun A., Aliçavuşoğlu E., Editor, İletişim Yayınevi, İstanbul, pp.135-151, 2009

- **Mimarlık eğitiminde değişim için yetkinliklere dayalı bir yaklaşım**

Özkar M., Aközer E.

in: Kapsayıcı ve katılımcı bir tasarım/araştırma projesi olarak değişim. IV. Mimarlık ve Eğitim Kurultayı Dizisi, Aközer, A., Özkar, M., Editor, Mimarlar Odası Yayınları, İstanbul, pp.24-31, 2008

- **Cognitive Analyses and Creative Operations**

Özkar M.

in: Visual and Spatial Reasoning in Design III, Key Center for Design Computing and Cognition, Gero J., Tversky B., Knight T., Editor, University Of Sydney, Sydney, pp.219-229, 2004

## Refereed Congress / Symposium Publications in Proceedings

- **The Dividing of the Sphere in Domes in Medieval Anatolia**

ÖZGAN S. Y. , ÖZKAR M.

Faces of Geometry. From Agnesi to Mirzakhani " in Magnaghi-Delfino, P., Mele, G., Norando, T. (Eds.) Faces of Geometry. From Agnesi to Mirzakhani, Lecture Notes in Networks and Systems 88, Springer, Cham, 13 May 2019, pp.165-176

- **Ortaçağ Anadolu Sanatı Araştırmalarında Disiplinlerarası Çalışmalar: Geometrik Örüntünün Gelişen Teknolojilerle Yolculuğu**

ÖZKAR M., ERKMEN BİRKANDAN A.

21. International Symposium on Medieval and Turkish Period Archaeology and Art History Studies, Antalya, Turkey, 25 - 27 October 2017, vol.13, pp.545-555

- **A Historical Perspective to Fabrication in Architecture for Preserving Heritage**

ÖZKAR M., HAMZAOĞLU B., ÖZGAN S. Y.

37th eCAADe and 23rd SIGraDi Conference, 11 - 13 September 2019

- **When Residents are Makers: using additive manufacturing for rehabilitating Modernist housing heritage**

REZOUG A., ÖZKAR M.

37th eCAADe and 23rd SIGraDi Conference, 11 - 13 September 2019

- **Fotogrametri Verilerinde Gömülü Biçim Eşleşmesiyle Yapısal Modellerin Oluşturulması**

TAŞ D., ÖZKAR M.

MSTAS 2019 -Örtüşmeler Kesişmeler, Kocaeli, Turkey, 17 - 18 June 2019

- **Digital Making and Control in Craft**

Gündüz G., Özkar M.

Materiality as a process, Lisbon, Portugal, 11 - 12 April 2019, pp.205-216

- **Introducing the Computation in Architectural Design: an example of a first year course with Parametric and Visual Programming Tools**

Gül L. F. , Özkar M., Yağmur Kilimci E. S. , Çekmiş A.

Materiality as a process, Lisbon, Portugal, 11 - 12 April 2019, pp.303-312

- **Zanaatin Sayısallaştırılması: Selçuklu Dönemi Oyma Taş Desenlerin Sayısal Üretim Araçları ile Yapımı**  
HAMZAOĞLU B., ÖZKAR M.  
CRAFTARCH'18 - INTERNATIONAL ART CRAFT SPACE CONGRESS, 5 - 07 December 2018
- **Geometrik Desenlerin Uygulanmasında Malzeme ve Zanaatin Etkilerini Çini Mozaik Üzerinden Okuma**  
ÖZGAN S. Y. , ÖZKAR M.  
CRAFTARCH'18 - INTERNATIONAL ART CRAFT SPACE CONGRESS, 5 - 07 December 2018
- **Material Shapes and How to Compute with Them**  
GÜRSOY TOYKOÇ B., ÖZKAR M.  
Nexus 2018: Relationships Between Architecture and Mathematics, 11 - 14 June 2018
- **Meno in the Studio: Design Computation in a Pedagogical Dialogue**  
HYSA D., Özkar M.  
17th CAADFutures Conference - Future Trajectories of Computation in Design, İstanbul, Turkey, 12 - 14 July 2017, pp.546-562
- **Hesaplamalı Örüntü Tasarımında Yapım Kuralları: CNC Frezeleme ile Bir Deneme**  
Hamzaoğlu B., Özkar M.  
11. Mimarlıkta Sayısal Tasarım Ulusal Sempozyumu, Ankara, Turkey, 14 - 15 June 2017, pp.10-21
- **Computation in Early Design Education as Investment in Attitudes**  
HYSA D., Ozkar M.  
34th eCAADe Conference (eCAADe), Oulu, Finland, 24 - 26 August 2016, pp.357-366
- **Geometric Patterns as Material Things: The Making of Seljuk Patterns on Curved Surfaces**  
Hamzaoğlu B., Özkar M.  
Bridges: Mathematics, Music, Art, Architecture, Education, Culture, Jyväskylä, Finland, 9 - 13 August 2016, pp.331-336
- **Tasarım ve Yapmanın İlişkisi: Selçuklu Geometrik Desenleri Örneğine Güncel bir Bakış**  
Hamzaoğlu B., Özkar M.  
10. Mimarlıkta Sayısal Tasarım Ulusal Sempozyumu, İstanbul, Turkey, 27 - 28 June 2016, pp.59-69
- **Productive Encounters Children, Learning Spaces, and Piezoelectrics**  
OZDAL O., Ozkar M.  
33rd International Conference on Education and Research in Computer Aided Architectural Design in Europe (eCAADe), Vienna, Austria, 16 - 18 September 2015, pp.659-666
- **A Digital Educational Model for Urban Transformation**  
YILDIRIM M. B. , Özkar M.  
33rd eCAADe Conference, Viyana, Austria, 16 - 18 September 2015, pp.483-492
- **Formal Descriptions of Material Manipulations An Exploration with Cuts and Shadows**  
Gursoy B., Jowers I., Ozkar M.  
16th International CAAD Futures Conference, Sao-Paulo, Brazil, 8 - 10 July 2015, vol.527, pp.439-457
- **Material Computability of Indeterminate Plaster Behavior**  
Aydin A., Ozkar M.  
16th International CAAD Futures Conference, Sao-Paulo, Brazil, 8 - 10 July 2015, vol.527, pp.582-599
- **From Bodies and Objects to Silhouettes: mediating active and DIY playscapes**  
KAY I., Karakaş H., Özkar M.  
Symposium with International Participation: Places for Learning Experi, Selanik, Greece, 9 - 10 January 2015, pp.248-258
- **PLAYING BY THE RULES: Design reasoning in Escher's creativity**  
Özgan S. Y. , Özkar M.  
CAADRIA-International Conference on Computer Aided Architectural Design Research in Asia, Kyoto, Japan, 14 - 17 May 2014, pp.23-32
- **Parametric Design Strategies for Collaborative and Participatory Urban Design**  
Steino N., YILDIRIM M. B. , Ozkar M.  
31st International Conference on Education and Research in Computer Aided Architectural Design in Europe (eCAADe), Delft, Netherlands, 18 - 20 September 2013, pp.195-203
- **Ruling Im/Material Uncertainties Visual representations for material-based transformations**

AKKUCUK Z., Ozkar M.

31st International Conference on Education and Research in Computer Aided Architectural Design in Europe (eCAADe), Delft, Netherlands, 18 - 20 September 2013, pp.305-314

• **Spatial Aspects of Active Learning**

KAY I., Ozkar M.

9th International Conference on Intelligent Environments (IE), Athens, Greece, 16 - 19 July 2013, vol.17, pp.562-570

• **Between Form and Material: the digital computability of indeterminate plaster behaviour**

AYDIN A., Özkar M.

7. Mimarlıkta Sayısal Tasarım Ulusal Sempozyumu, İstanbul, Turkey, 27 - 28 June 2013, pp.161-168

• **Kentsel Dönüşümde Katılımcı Tasarım Aracı Olarak Oyun**

YILDIRIM M. B. , Özkar M.

6. Mimarlıkta Sayısal Tasarım Ulusal Sempozyumu, Bursa, Turkey, 18 May 2012, pp.75-86

• **Prefabrik Sistemlerin Bilgisayar Destekli Tasarım ve Üretim Yöntemleriyle Doğal Afet Sonrası Kullanım Amaçlı Ucuz Hızlı ve Nitelikli Barınak için Uyarlanması**

Rezoug A., Özkar M.

6. Mimarlıkta Sayısal Tasarım Ulusal Sempozyumu, Bursa, Turkey, 18 May 2012, pp.102-110

• **Is Model-Making Sketching in Design?**

GURSOY B., Özkar M.

Design Research Society (DRS) International Conference 2010: Design & Complexity, Montreal, Canada, 7 - 09 July 2010

• **Sayısal Ortamda Elle Tasarım Modeli Üretmek Üzerine Bir Ön Çalışma**

Zaman Ç. H. , Özkar M., Çağdaş G.

Mimarlıkta Sayısal Tasarım 2010 Ulusal Sempozyumu, İstanbul, Turkey, 15 May 2010, pp.61-62

• **Curricular Reform in Architectural Education as an Inclusive and Sustainable Process: Reflections on an ongoing Action Research Project for the Design of a National Qualifications Framework for Architectural Education and Curriculum Development**

Aközer E., Özkar M., Önür S.

Society for Research into Higher Education (SRHE) Annual Conference: Challenging Higher Education; knowledge, policy and practice, Brighton, United Kingdom, 8 - 10 December 2009, pp.49

• **Revisiting Shape Embedding**

Keles H. Y. , Ozkar M., Tari S.

27th Conference on Education and Research in Computer Aided Architectural Design in Europe, İstanbul, Turkey, 16 - 19 September 2009, pp.229-236

• **Reflections on the questions raised for the 2nd Workshop: Competences-based teaching and pedagogy**

Aközer E., Özkar M., Önür S., Kiraz E.

Erasmus Mundus Program Action 4: ENHSA – Latin America Workshop 2 Competences-based teaching and pedagogy, Hania, Greece, 4 - 06 September 2008

• **Mimarlık eğitiminin ulusal gündemi: Mimarlık Eğitimi Ulusal Yeterlilikler Çerçevesi çalışması**

Aközer E., Özkar M., Önür S.

XXVI. Mimarlık Okulları Bölüm Başkanları İletişim Grubu (MOBBİG) Toplantısı, İzmir, Turkey, 8 - 09 May 2008, pp.85-96

• **Gelişen Tasarım Süreç Ve Teknolojileri**

Özkar M., Baykan C., Çağdaş G., Çolakoğlu B., Pak B.

Mimarlık ve Eğitim Kurultayı IV: Mimarlık ve Eğitimi / Süreklilik ve Değişim, Ankara, Turkey, 01 April 2008, pp.125-130

• **National Qualifications Framework for architectural education in Turkey – A research project.**

Önür S., Aközer E., Özkar M., Kiraz E.

Erasmus Mundus Program Action 4: Enhsa – Latin America Workshop 1: Competences based curricula reforms, Lima, Peru, 14 - 17 February 2008

• **Learning Computing by Design; Learning Design by Computing**

Özkar M.

DesignTrain Congress Trailer 1: Guidance in/for Design Training, Amsterdam, Netherlands, 10 - 12 May 2007, pp.102-111

- **Learning by doing in the age of design computation**  
Özkar M.  
12th Computer-Aided Architectural Design Futures Conference, Sydney, Australia, 01 January 2007, pp.99-112
- **The Renewed Meaning of Basic Design in Architecture Education: Computation**  
Özkar M.  
Shaping Design Teaching Symposium, Aalborg, Denmark, 05 April 2006
- **Lesson 1 in Design Computing Does not Have to be with Computers: Basic design exercises, exercises in visual computing**  
Özkar M.  
Education and Research in Computer-aided Architectural Design in Europe (eCAADe) 23 Digital Design: The Quest for New Paradigms, Lisbon, Portugal, 21 - 24 September 2005, pp.311-318
- **Aesthetics and Architectural Composition: Dresden International Symposium of Architecture**  
Özkar M.  
Form Relations in Analyses by Denman Waldo Ross: an Early Modernist Approach in Architectural Education, Dresden, Germany, 16 - 19 June 2005, pp.322-328

## Supported Projects

- Özkar Kabakçioğlu M., Project Supported by Higher Education Institutions, Eğitimde Kentsel Tasarım: Esnek Bir Hesaplamalı Uzamsal Model, 2014 - 2019
- Özkar Kabakçioğlu M., Project Supported by Higher Education Institutions, Temel Tasarım Eğitiminde Tutum Kazanımıyla İlişkili Olarak Sayısal Düşüncenin Önemi, 2016 - 2018
- Özkar Kabakçioğlu M., Project Supported by Higher Education Institutions, Çok Yüzlü Şekillerde Tekrarlı Örüntüler: Orta Anadolu'dan 13. Yüzyıl Tarihli Bir On İki Yüzlü Örneği, 2016 - 2018
- Özkar Kabakçioğlu M., Project Supported by Higher Education Institutions, SELÇUKLU GEOMETRİK DESENLERİNDE YAPIMIN HESAPLANMASI, 2016 - 2018
- Özkar Kabakçioğlu M., Project Supported by Higher Education Institutions, Ruling Im Material Uncertainties Visual Representations For Material Based Transformations, 2013 - 2018
- Özkar Kabakçioğlu M., Project Supported by Higher Education Institutions, Tasarım Sürecindeki Yapma Eyleminin Gösterimi, 2015 - 2016
- Özkar Kabakçioğlu M., Project Supported by Higher Education Institutions, Piezoelektrik Malzemeyle Bir Sayısal Tasarım Uygulaması, 2014 - 2016
- Özkar Kabakçioğlu M., TÜBİTAK Project, Anadolu Selçuklu Mimarisinde İki Boyutlu Geometrik Desenlerin Tasarım Süreçlerinin Bilgisayar Destekli Çözümlemesi, 2014 - 2016
- Özkar Kabakçioğlu M., Project Supported by Higher Education Institutions, Form ve Malzeme Arasında: Belirsiz Alçı Davranışının Sayısal Hesaplanabilirliği, 2014 - 2016
- Özkar Kabakçioğlu M., Project Supported by Higher Education Institutions, Sinestetik Etkileşim için Mekansal Sistem Önerisi, 2014 - 2015
- Özkar Kabakçioğlu M., Project Supported by Higher Education Institutions, Prefabrik Sistemlerin Bilgisayar Destekli Tasarım ve Üretim Yöntemleriyle Doğal Afet Sonrası Kullanım Amaçlı Ucuz, Hızlı ve Nitelikli Barınak için Uyarlanması, 2011 - 2013
- Özkar Kabakçioğlu M., TÜBİTAK Project, Mimarlık Eğitimi Ulusal Yeterlilikler Çerçevesi Ve Yetkinliklere-dayalı / Öğrenen-merkezli Lisans, Yüksek Lisans, Doktora Programları İçin Eylem İçinde Planlama Ve Tasarım, 2008 - 2010
- Özkar Kabakçioğlu M., TÜBİTAK Project, İki Boyutlu Desenlerde Görsel Düşünme Ve Tasarlama Süreçlerinin Şekil Cebiri Kullanarak Hesaplamalı Modellemesi, 2008 - 2008
- Özkar Kabakçioğlu M., TÜBİTAK Project, Mimarlık Eğitimi Ulusal Yeterlilikler Çerçevesi İçin Bir Tasarım Stratejisi- Ön Proje, 2007 - 2007

## Activities in Scientific Journals

İTÜ A Z, Committee Member, 2018 - Continues

NEXUS NETWORK JOURNAL, Committee Member, 2017 - Continues

Journal of Digital Landscape Architecture JoDLA, Committee Member, 2016 - Continues  
International Journal of Architectural Computing, Special Issue Editor, 2015 - 2017  
NEXUS NETWORK JOURNAL, Special Issue Editor, 2014 - 2015  
LEONARDO , Special Issue Editor, 2011 - 2012  
LEONARDO , Evaluation Committee Member, 2010 - 2010  
LEONARDO , Evaluation Committee Member, 2009 - 2009  
LEONARDO , Evaluation Committee Member, 2008 - 2008  
METU Journal of Faculty of Architecture, Special Issue Editor, 2007 - 2007

## **Citations**

Total Citations (WOS):69

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