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Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: A-2977-2019

ScopusID: 6505866836

Yoksis Researcher ID: 153129

Biography

I have graduated from ITU Faculty of Civil Engineering following my high school education at Trabzon Yomra Science High School. I have completed my MSc and Ph.D. education at ITU Graduate School of Science and Technology. I have been working as Assistant Professor at the Civil Engineering Faculty of ITU.

Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, İnşaat Mühendisliği Anabilim Dalı, Turkey 2000 - 2006

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, İnşaat Mühendisliği Anabilim Dalı, Turkey 1998 - 2000

Undergraduate, Istanbul Technical University, İnşaat Fakültesi, İnşaat Mühendisliği Bölümü, Turkey 1994 - 1998

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Yüksek performanslı çimentolu ürünlerin otojen rötre özellikleri, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, İnşaat Mühendisliği Anabilim Dalı, 2005

Postgraduate, Uzuntarla trasının betonun mekanik özellikleri üzerindeki etkinliği, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, İnşaat Mühendisliği Anabilim Dalı, 2000

Research Areas

Civil Engineering, Building materials, Materials in Civil Engineering, Concrete Technology, Building Components and Materials, Composite materials, Material Mechanics, Applications of Insulation Materials, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Istanbul Technical University, İnşaat, İnşaat Mühendisliği, 2015 - Continues
Assistant Professor, Istanbul Technical University, İnşaat, İnşaat Mühendisliği, 2007 - 2015
Research Assistant PhD, Istanbul Technical University, İnşaat, İnşaat Mühendisliği, 2006 - 2007
Research Assistant, Istanbul Technical University, İnşaat, İnşaat Mühendisliği, 1998 - 2006

Courses

Malzemelerin Şekil Değişirme Özellikleri, Postgraduate, 2019 - 2020
Materials Science, Undergraduate, 2019 - 2020
Yapı Malzemesi, Undergraduate, 2016 - 2017
Malzeme Bilimi, Undergraduate, 2016 - 2017
Yapıların Deneysel Analizi, Postgraduate, 2016 - 2017

Advising Theses

Pekmezci B. Y., THERMAL AND MECHANICAL PERFORMANCE OF CEMENTITIOUS PCM COMPOSITES, Doctorate, E.YİĞİT(Student), 2020
Pekmezci B. Y., Influence of frequency at ultrasonic tomography of concrete, Postgraduate, M.AL TUĞ(Student), 2019
Pekmezci B. Y., Ultrasonik tomografi ve ultrases geçiş hızı yöntemiyle betonda kusur tespiti, Postgraduate, E.TAVLI(Student), 2018
Pekmezci B. Y., Determination of defects in timber structural materials with ultrasonic tomography, Postgraduate, M.CAN(Student), 2017
Pekmezci B. Y., Mechanical performance of glass textile reinforced cementitious composites, Postgraduate, H.AGHAFAM(Student), 2016
Pekmezci B. Y., I. Ulusal Mimarlık dönemine ait yapıların deneysel ve sayısal olarak incelenmesi, Postgraduate, S.EKİNCİ(Student), 2015
Pekmezci B. Y., Kompozit panel yapı malzemelerinin mekanik özelliklerinin araştırılması, Postgraduate, E.ARABACI(Student), 2015
Pekmezci B. Y., Influence of polyolefein fibers on mechanical properties of concrete, Postgraduate, B.YORULMAZ(Student), 2014
Pekmezci B. Y., PVA tekstillerin çimento esaslı kompozitlerde kullanılması, Postgraduate, A.CAN(Student), 2012
Pekmezci B. Y., Comparison of flexural performances of fabric reinforced cementitious composites with varying fabric types. , Postgraduate, R.ÇELİK(Student), 2011
Pekmezci B. Y., Türkiye yapı malzemesi sektöründe yer alan firmaların ihracatta yaşadıkları sorunlar ve çözüm önerileri, Postgraduate, İ.İŞİK(Student), 2011
Pekmezci B. Y., Çok hafif yalıtım betonlarının mekanik ve ısı iletkenlik özellikleri, Postgraduate, S.ELDEN(Student), 2011
Pekmezci B. Y., Kireç ve alçı içeren toprak elemanlarının fiziksel ve mekanik özellikleri, Postgraduate, E.AGHAZADEH(Student), 2011
Pekmezci B. Y., Kolloid silikanın uçucu küllü harçların mekanik özelliklerine etkisi, Postgraduate, D.GÜNDOĞDU(Student), 2010
Pekmezci B. Y., Durability of extruded cement based materials, Postgraduate, M.ÖZEN(Student), 2010
Pekmezci B. Y., Ekstrüzyon tekniğinin çimento esaslı malzemelerde uygulanması, Postgraduate, A.SANCAK(Student), 2010

Jury Memberships

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Yıldız Teknik Üniversitesi,

January, 2020

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Yıldız Teknik Üniversitesi,
January, 2018

Research Infrastructure Information

Pekmezci B. Y., Ticem Labs İstanbul, July 2015

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Mechanical and physical properties and morphology of concrete containing plastic waste as aggregate**
Belmokaddem M., Mahi A., Senhadji Y., Pekmezci B. Y.
Construction And Building Materials, vol.257, pp.1-10, 2020 (SCI-Expanded)
- II. **A Taguchi approach for optimizing the mixture design of cold-bonded PCM aggregates**
Tuncel E. Y., Pekmezci B. Y.
ENERGY SOURCES PART A-RECOVERY UTILIZATION AND ENVIRONMENTAL EFFECTS, 2019 (SCI-Expanded)
- III. **Performance of glass fiber-reinforced cement composites containing phase change materials**
Tuncel E. Y., Pekmezci B. Y.
ENVIRONMENTAL PROGRESS & SUSTAINABLE ENERGY, vol.38, no.3, 2019 (SCI-Expanded)
- IV. **A sustainable cold bonded lightweight PCM aggregate production: Its effects on concrete properties**
Tuncel E. Y., Pekmezci B. Y.
CONSTRUCTION AND BUILDING MATERIALS, vol.181, pp.199-216, 2018 (SCI-Expanded)
- V. **Fiber quantity analysis of cementitious composite using multifocus imagery**
AKÇAY Ö., Pekmezci B. Y., Şeker D. Z., Tuncel E. Y., Atahan H. N.
POLYMER COMPOSITES, vol.39, no.6, pp.2126-2134, 2018 (SCI-Expanded)

Articles Published in Other Journals

- I. **Freeze-Thaw Durability of Lime Based FRCM Systems for Strengthening Historical Masonry**
PEKMEZCİ B. Y., Arabaci E., ÜSTÜNDAĞ C.
Key Engineering Materials, vol.817, pp.174-181, 2019 (Scopus)

Refereed Congress / Symposium Publications in Proceedings

- I. **PCM containing sustainable fiber reinforced cementitious panels: Mechanical and thermal performance**
PEKMEZCİ B. Y., TUNCEL E. Y.
Indian Chapter of American Concrete Institute, Mumbai, India, 14 - 15 December 2018
- II. **Flexural behaviour of fabric reinforced cement-based composites in strengthening of masonry walls**
GÜNEŞ M. E., GİRGIN Z. C., PEKMEZCİ B. Y.
International Workshop on Advanced Materials and Innovative Systems in Structural Engineering : Seismic Practices, IWAMISSE 2018, İstanbul, Turkey, 16 November 2018
- III. **Natural Hydraulic Lime Based Composites for Strengthening of Historical Constructions**
PEKMEZCİ B. Y.
Advances in Construction Materials and Systems, Chennai, India, 3 - 08 September 2017, pp.597-607
- IV. **Application of a partially destructive mini shear index test on historical masonry buildings**
Pekmezci B. Y., Güler F.

SAHC 2016- Structural Analysis of Historical Constructions, Leuven, Belgium, 13 - 15 September 2016, pp.1-10

- V. **Conservation of timber structures in Istanbul: Problems and proposals**
Polat-Pekmezci I., Eyüpgiller K. K., Üstündağ C., Pekmezci B. Y.
10th International Conference on Structural Analysis of Historical Constructions, SAHC 2016, Leuven, Belgium, 13 - 15 September 2016, pp.1045-1049
- VI. **Effects of phase change materials on the mechanical and thermal performance of the fiber reinforced composites**
Pekmezci B. Y., Tuncel E. Y.
NICOM5: Nanotechnology in Construction Materials, Chicago, United States Of America, 14 May 2015 - 16 May 2016, pp.1-7
- VII. **Utilization of partially destructive test methods on mechanical properties of historical lime mortars**
Tuncel E. Y., Pekmezci I., Pekmezci B. Y.
10th International Conference on Structural Analysis of Historical Constructions, SAHC 2016, Leuven, Belgium, 13 - 15 September 2016, pp.1415-1418
- VIII. **BEHAVIOR OF TEXTILE REINFORCED LIME COMPOSITES UNDER FLEXURAL LOADS**
Tuncel E. Y., Polat Pekmezci I., Pekmezci B. Y.
9th International Conference on Structural Analysis of Historical Constructions, Mexico City, Mexico, 14 October 2014 - 17 October 2015, pp.1-8
- IX. **Properties of Lime Based Textile Reinforced Composites**
Tuncel E. Y., Polat Pekmezci I., Pekmezci B. Y., Karagüzel Kayaoğlu B.
5th International Istanbul Textile Congress, 2015, Innovative Technologies, Inspire to Innovate, İstanbul, Turkey, 11 - 12 September 2015, pp.236-241
- X. **Effects of Microencapsulated Phase Change Materials on the Mechanical and Thermal Performance of the Fiber Reinforced Inorganic Panels**
TUNCEL E. Y., PEKMEZCİ B. Y.
NICOM 5 Conference on Nanotechnology in Construction, Chicago, 24 - 26 May 2015
- XI. **Utility of nano-SiO₂ in fiber reinforced cementitious composites", 2015, s. 1-7, NICOM5: Nanotechnology in Construction Materials**
Pekmezci B. Y.
NICOM5: Nanotechnology in Construction Materials, Chicago, United States Of America, 14 - 16 May 2015, pp.1-7
- XII. **Calender extrusion of cement mixtures for sustainable composite production**
Pekmezci B. Y.
Fiber Reinforced Concrete for Sustainable Structures at the Fall 2012 ACI Convention and the Fall 2013 ACI Convention, Arizona, United States Of America, 10 - 24 October 2013, pp.57-67
- XIII. **İstanbul'da Mimar Kemalettin Bey'in Bazı Eserleri Üzerinde Genel Bir Malzeme ve Yapısal Performans Değerlendirmesi**
Ekinci S., Turan Ö. T., Pekmezci B. Y., Polat Pekmezci I., Yorulmaz B., Dusak S.
Tarihi Eserlerin Güçlendirilmesi ve Geleceğe Güvenle Aktarılması, İstanbul, Turkey, 27 - 29 November 2013, pp.152-161
- XIV. **PVA ve PP Lif İçeren Kireç Harçlarının Mekanik Özellikleri**
Tuncel E. Y., Polat Pekmezci I., Pekmezci B. Y.
4. Tarihi Yapıların Güçlendirilmesi ve Geleceğe Güvenle Devredilmesi Sempozyumu, İstanbul, Turkey, 27 - 29 November 2013, pp.185-193

Supported Projects

Pekmezci B. Y., Karagüzel Kayaoğlu B., Project Supported by Higher Education Institutions, Betonda Donatı Olarak Polimer Esaslı Nonwoven Tekstillerin Kullanılması, 2011 - 2020

Pekmezci B. Y., Project Supported by Higher Education Institutions, Application of a partially destructive mini shear index test on historical masonry buildings, 2016 - 2018

Pekmezci B. Y., Project Supported by Higher Education Institutions, Kolloidal Nano Silikanın Fiber Donatılı Çimentolu Kompozitlerin Üretiminde Kullanılması, 2015 - 2018

Pekmezci B. Y., Project Supported by Higher Education Institutions, Nano SiO₂ nin Portland Ve Uçucu Küllü Çimentoların Hidratasyon Kinetiğine Etkileri, 2013 - 2018

Pekmezci B. Y., Project Supported by Higher Education Institutions, Mineral Katkı İçeren Harçlarda Nano SiO₂ Kullanımı, 2012 - 2018

Pekmezci B. Y., Project Supported by Higher Education Institutions, Nano SiO₂ Kullanımının Uçucu Küllü Harçların Mekanik Özellikleri Üzerindeki etkisi, 2010 - 2018

Pekmezci B. Y., Project Supported by Higher Education Institutions, Farklı üretim teknikleriyle üretilen ince cidarlı kompozitlerin mekanik özelliklerinin araştırılması, 2015 - 2016

Pekmezci B. Y., Project Supported by Higher Education Institutions, Düşük Mukavemetli Yalıtım Amaçlı Hafif Betonların Mekanik ve Isıl İletkenlik Özelliklerinin İncelenmesi, 2009 - 2015

Pekmezci B. Y., Project Supported by Higher Education Institutions, Reaktif Pudra Betonunun Kırılma Parametreleri ve Otojen Rötresinin Belirlenmesi, 2009 - 2015

Pekmezci B. Y., Project Supported by Higher Education Institutions, Kerpiç Blokların Mekanik performansının Kireç ve Alçı Kullanılarak İyileştirilmesi, 2011 - 2013

Pekmezci B. Y., Project Supported by Higher Education Institutions, Cam Tekstillerle Üretilen Betonların Mekanik Özellikleri, 2010 - 2013

Pekmezci B. Y., Project Supported by Higher Education Institutions, Ekstrüzyon Tekniği ile Üretilen Çimento Esaslı Malzemelerin Optimum Tasarımı, 2009 - 2010

Pekmezci B. Y., Project Supported by Higher Education Institutions, Uçucu Kül İçeren Harçların Mekanik Özelliklerinin Nanosilika Kullanımı İle İyileştirilmesi, 2009 - 2010

Pekmezci B. Y., Project Supported by Higher Education Institutions, Çimento Esaslı Malzemelerin Ekstrüzyon Tekniği ile Üretilmesi, 2009 - 2010

Patent

Pekmezci B. Y., System and method for producing thin cement-based panels having high strength, durability and production rate, Patent, CHAPTER C Chemistry; Metallurgy, Standard Registration, 2017

Memberships / Tasks in Scientific Organizations

Mechanical Characterization and Structural design of Textile Reinforced Concrete, Member, 2019 - Continues

FRCM/SRG Material Characteristics, Member, 2019 - Continues

İnce Fiber Donatılı Kompozitler ve Ferrocement, Member, 2015 - Continues

Nano Engineered Concrete, Member, 2015 - Continues

Betonun Nanoteknolojisi teknik kurulu, Member, 2015 - Continues

Scientific Refereeing

JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, SCI Journal, July 2020

JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, SCI Journal, May 2020

JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, SCI Journal, May 2020

JOURNAL OF BUILDING ENGINEERING, SCI Journal, March 2020

CONSTRUCTION AND BUILDING MATERIALS, SCI Journal, March 2020

JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, SCI Journal, March 2020

JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, Journal Indexed in SCI-E, March 2020

İSTANBUL TİCARET ÜNİVERSİTESİ FEN BİLİMLERİ DERGİSİ, National Scientific Refreed Journal, March 2020
JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, SCI Journal, February 2020
JOURNAL OF COMPOSITE MATERIALS, SCI Journal, February 2020
JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, SCI Journal, January 2020
JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, SCI Journal, November 2019
JOURNAL OF BUILDING ENGINEERING, SCI Journal, November 2019
JOURNAL OF BUILDING ENGINEERING, SCI Journal, October 2019
CONSTRUCTION AND BUILDING MATERIALS, SCI Journal, October 2019
CONSTRUCTION AND BUILDING MATERIALS, SCI Journal, September 2019
JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, SCI Journal, August 2019
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, Journal Indexed in SCI-E, July 2019
JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, SCI Journal, July 2019
CONSTRUCTION AND BUILDING MATERIALS, SCI Journal, April 2019
CONSTRUCTION AND BUILDING MATERIALS, SCI Journal, January 2019
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, Journal Indexed in SCI-E, November 2018
JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, SCI Journal, October 2018
JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, SCI Journal, June 2018
CONSTRUCTION AND BUILDING MATERIALS, SCI Journal, April 2018
CONSTRUCTION AND BUILDING MATERIALS, SCI Journal, April 2014
JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, SCI Journal, October 2011
CONSTRUCTION AND BUILDING MATERIALS, SCI Journal, October 2011
CONSTRUCTION AND BUILDING MATERIALS, SCI Journal, June 2011

Mobility Activity

Research Scholarship Program, Guest Researcher, Northwestern University, United States Of America, 2004 - 2005

Metrics

Publication: 71

Citation (WoS): 121

Citation (Scopus): 194

H-Index (WoS): 5

H-Index (Scopus): 7

Congress and Symposium Activities

3 rd Raikar Memorial International Conference and Gettu Kodur Symposium, Invited Speaker, Mumbai, India, 2018

Advances in Construction Materials and Systems, Attendee, Chennai, India, 2017

2nd R.N. Raikar International Conference and Bantia- Basheer International Symposium on Advances in Science and Technology of Concrete, Invited Speaker, Mumbai, India, 2015

CEMENT. CONCRETE. DRY MIXTURES , Invited Speaker, Moscow, Russia, 2011

Scholarships

Scholar supporting fund, University, 2004 - 2004

Scholar support found, TUBITAK, 2004 - 2004

Entrepreneurship Activities

Limited, Ticem Advanced Structural Technologies, 10 November 2010, Founder Owner

Non Academic Experience

Business Establishment Private, Ticem İleri Yapı Teknolojileri San. Tic. Dan. Ltd. Şti.
Ticem İleri Yapı Teknolojileri San. Tic. Dan. Ltd. Şti.