

Prof. SİNAN TURHAN ERDOĞAN

Personal Information

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Education Information

Doctorate, The University Of Texas At Austin, United States Of America 2002 - 2005

Post Graduate, University Of Texas At Austin, Yapı Malzemeleri, United States Of America 2001 - 2003

Under Graduate, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, Turkey 1996 - 2000

Foreign Languages

French, C1 Advanced

English, C1 Advanced

Dissertations

Doctorate, Determination of aggregate shape properties using X-ray tomographic methods and the effect of shape on concrete rheology, University of Texas at Austin, 2005

Research Areas

Civil Engineering, Building materials, Materials in Civil Engineering, Concrete Technology, Applications of Insulation Materials, Engineering and Technology

Academic Titles / Tasks

Professor, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, 2018 - Continues
Associate Professor, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, 2013 - 2018

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 2009 - 2013

Lecturer, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 2007 - 2009

Professional Experience

Head of Department, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Cement Engineering, 2012 - Continues

Courses

Concrete Making Materials, Post Graduate, 2019 - 2020

Advising Theses

- ERDOĞAN S. T. , Development of magnesium potassium phosphate cement pastes and mortars incorporating fly ash, Post Graduate, B.AYKUT(Student), 2018
- ERDOĞAN S. T. , Influence of perlite addition on the strength development and thermal stability of calcium aluminate cement mortars, Post Graduate, K.ŞENGÜL(Student), 2018
- ERDOĞAN S. T. , Production of low-energy cements using various industrial wastes, Post Graduate, O.CANBEK(Student), 2018
- Erdoğan S. T. , Bayer Ö., Production of aerated alkali-activated slag pastes and mortars using hydrogen peroxide, Doctorate, M.ŞAHİN(Student), 2017
- ERDOĞAN S. T. , Production of silica fume-based geopolymeric foam, Post Graduate, S.SHAKOURI(Student), 2017
- ERDOĞAN S. T. , Room-temperature phosphate ceramics made with Afşin-Elbistan fly ash, Post Graduate, M.MAHYAR(Student), 2014
- ERDOĞAN S. T. , TOKYAY M., Effect of particle size on heat of hydration of pozzolan incorporated cements, Post Graduate, M.KEMAL(Student), 2014
- ERDOĞAN S. T. , TOKYAY M., Early heat evolution of different sized portland cements incorporating ground granulated blast furnace slag, Post Graduate, C.ÇETİN(Student), 2013
- ERDOĞAN S. T. , Effect of combining different cement clinkers and slag with controlled finenesses on mortar strength and heat of hydration, Post Graduate, T.ÇELİKKOL(Student), 2013
- ERDOĞAN S. T. , Comparison of the strength developments of interground and separately ground marble-incorporated cement mortars, Post Graduate, İ.TOLGA(Student), 2013
- ERDOĞAN S. T. , TOKYAY M., Early heat evolution in natural pozzolan-incorporated cement hydration, Post Graduate, D.ÖVER(Student), 2012
- ERDOĞAN S. T. , Effect of coating materials and mixture constituents on the permeability of concrete, Post Graduate, A.VELİ(Student), 2012
- ERDOĞAN S. T. , Determination of relations between elastic properties of cement mortars by using destructive and nondestructive methods, Post Graduate, S.DENİZ(Student), 2010
- ERDOĞAN S. T. , Alkali-silica reactivity and activation of ground perlite-containing cementitious mixtures, Post Graduate, A.ÜNSAL(Student), 2009

Jury Memberships

Appointment Academic Staff, Appointment Academic Staff, İstanbul Teknik Üniversitesi, October, 2019

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

- **Development of silica fume-based geopolymer foams**
Shakouri S., BAYER Ö., ERDOĞAN S. T.
CONSTRUCTION AND BUILDING MATERIALS, vol.260, 2020 (Journal Indexed in SCI)
- **Influence of production parameters on calcium sulfoaluminate cements**
Canbek O., ERDOĞAN S. T.
CONSTRUCTION AND BUILDING MATERIALS, vol.239, 2020 (Journal Indexed in SCI)
- **Laboratory production of calcium sulfoaluminate cements with high industrial waste content**
Canbek O., Shakouri S., ERDOĞAN S. T.

- CEMENT & CONCRETE COMPOSITES, vol.106, 2020 (Journal Indexed in SCI)
Activation of Blast Furnace Slag with Soda Production Waste
Bilginer A., Canbek O., Turhan Erdogan S. T.
- JOURNAL OF MATERIALS IN CIVIL ENGINEERING, vol.32, 2020 (Journal Indexed in SCI)
Effect of particle size on early heat evolution of interground natural pozzolan blended cements
ARDOĞA M. K., ERDOĞAN S. T., Tokyay M.
- CONSTRUCTION AND BUILDING MATERIALS, vol.206, pp.210-218, 2019 (Journal Indexed in SCI)
Production of lightweight aerated alkali-activated slag pastes using hydrogen peroxide
Sahin M., Erdoğan S. T., Bayer Ö.
- CONSTRUCTION AND BUILDING MATERIALS, vol.181, pp.106-118, 2018 (Journal Indexed in SCI)
Extension of the chemical index model for estimating Alkali-Silica reaction mitigation efficiency to slags and natural pozzolans
Mahyar M., ERDOĞAN S. T., TOKYAY M.
- CONSTRUCTION AND BUILDING MATERIALS, vol.179, pp.587-597, 2018 (Journal Indexed in SCI)
Influence of slag fineness on the strength and heat evolution of multiple-clinker blended cements
ERDOĞAN S. T., Kocak T. C.
- CONSTRUCTION AND BUILDING MATERIALS, vol.155, pp.800-810, 2017 (Journal Indexed in SCI)
Particle-based characterization of Ottawa sand: Shape, size, mineralogy, and elastic moduli
ERDOĞAN S. T., Forster A. M., Stutzman P. E., Garboczi E. J.
- CEMENT & CONCRETE COMPOSITES, vol.83, pp.36-44, 2017 (Journal Indexed in SCI)
Mutual activation of blast furnace slag and a high-calcium fly ash rich in free lime and sulfates
Sahin M., Mahyar M., ERDOĞAN S. T.
- CONSTRUCTION AND BUILDING MATERIALS, vol.126, pp.466-475, 2016 (Journal Indexed in SCI)
Simple Estimation of the Surface Area of Irregular 3D Particles
ERDOĞAN S. T.
- JOURNAL OF MATERIALS IN CIVIL ENGINEERING, vol.28, 2016 (Journal Indexed in SCI)
Effect of particle size and slag content on the early hydration of interground blended cements
Cetin C., ERDOĞAN S. T., TOKYAY M.
- CEMENT & CONCRETE COMPOSITES, vol.67, pp.39-49, 2016 (Journal Indexed in SCI)
Phosphate-activated high-calcium fly ash acid-base cements
Mahyar M., ERDOĞAN S. T.
- CEMENT & CONCRETE COMPOSITES, vol.63, pp.96-103, 2015 (Journal Indexed in SCI)
Inexpensive intumescent alkali-activated natural pozzolan pastes
ERDOĞAN S. T.
- JOURNAL OF THE EUROPEAN CERAMIC SOCIETY, vol.35, pp.2663-2670, 2015 (Journal Indexed in SCI)
Properties of Ground Perlite Geopolymer Mortars
ERDOĞAN S. T.
- JOURNAL OF MATERIALS IN CIVIL ENGINEERING, vol.27, 2015 (Journal Indexed in SCI)
Prediction of Elastic Moduli Development of Cement Mortars Using Early Age Measurements
Deniz S., ERDOĞAN S. T.
- JOURNAL OF MATERIALS IN CIVIL ENGINEERING, vol.27, 2015 (Journal Indexed in SCI)
Effect of Pozzolan Content and Fineness on Early Hydration of Interground Blended Cements
ERDOĞAN S. T., Over D., TOKYAY M.
- JOURNAL OF ADVANCED CONCRETE TECHNOLOGY, vol.12, pp.101-110, 2014 (Journal Indexed in SCI)
Early-age activation of cement pastes and mortars containing ground perlite as a pozzolan
ERDOĞAN S. T., Saglik A. U.
- CEMENT & CONCRETE COMPOSITES, vol.38, pp.29-39, 2013 (Journal Indexed in SCI)
Effect of clinker phase distribution within cement particles on properties of a hydrating cement paste
Erdogan S. T.
- CONSTRUCTION AND BUILDING MATERIALS, vol.38, pp.941-949, 2013 (Journal Indexed in SCI)

- **Alkali activation of a slag at ambient and elevated temperatures**
Altan E., ERDOĞAN S. T.
CEMENT & CONCRETE COMPOSITES, vol.34, pp.131-139, 2012 (Journal Indexed in SCI)
- **Spherical harmonic-based random fields based on real particle 3D data: Improved numerical algorithm and quantitative comparison to real particles**
Liu X., Garboczi E. J., Grigoriu M., Lu Y., ERDOĞAN S. T.
POWDER TECHNOLOGY, vol.207, pp.78-86, 2011 (Journal Indexed in SCI)
- **Shape Comparison between 0.4-2.0 and 20-60 μ m Cement Particles**
Holzer L., Flatt R. J., ERDOĞAN S. T., Bullard J. W., Garboczi E. J.
JOURNAL OF THE AMERICAN CERAMIC SOCIETY, vol.93, pp.1626-1633, 2010 (Journal Indexed in SCI)
- **Micrometer-scale 3-D shape characterization of eight cements: Particle shape and cement chemistry, and the effect of particle shape on laser diffraction particle size measurement**
ERDOĞAN S. T., Nie X., Stutzman P. E., Garboczi E. J.
CEMENT AND CONCRETE RESEARCH, vol.40, pp.731-739, 2010 (Journal Indexed in SCI)
- **Comprehensive Evaluation of AIMS Texture, Angularity, and Dimension Measurements**
Mahmoud E., Gates L., Masad E., Erdogan S., Garboczi E.
JOURNAL OF MATERIALS IN CIVIL ENGINEERING, vol.22, pp.369-379, 2010 (Journal Indexed in SCI)
- **Influence of the shape and roughness of inclusions on the rheological properties of a cementitious suspension**
ERDOĞAN S. T., Martys N. S., Ferraris C. F., Fowler D. W.
CEMENT & CONCRETE COMPOSITES, vol.30, pp.393-402, 2008 (Journal Indexed in SCI)
- **Shape and size of microfine aggregates: X-ray microcomputed tomography vs. laser diffraction**
Erdogan S. T., Garboczi E. J., Fowler D. W.
POWDER TECHNOLOGY, vol.177, pp.53-63, 2007 (Journal Indexed in SCI)
- **Three-dimensional shape analysis of coarse aggregates: New techniques for and preliminary results on several different coarse aggregates and reference rocks**
Erdogan S. T., Quiroga P. N., Fowler D. W., Saleh H. A., Livingston R. A., Garboczi E. J., Ketcham P. M., Hagedorn J. G., Satterfield S. G.
CEMENT AND CONCRETE RESEARCH, vol.36, pp.1619-1627, 2006 (Journal Indexed in SCI)
- **Some properties of irregular 3-D particles**
Taylor M., Garboczi E., Erdogan S. T., Fowler D.
POWDER TECHNOLOGY, vol.162, pp.1-15, 2006 (Journal Indexed in SCI)

Articles Published in Other Journals

- **Influence of ground perlite on the hydration and strength development of calcium aluminate cement mortars**
Şengül K., ERDOĞAN S. T.
Construction and Building Materials, vol.266, 2021 (Refereed Journals of Other Institutions)

Refereed Congress / Symposium Publications in Proceedings

- **Magnesium oxalate cements for carbon reuse**
ERDOĞAN S. T.
AGU Fall 2019, United States Of America, 9 - 13 December 2019
- **Magnesium oxalate cements for carbon reuse**
ERDOĞAN S. T.
American Geophysical Union Fall Meeting 2019, United States Of America, 9 - 13 December 2019
- **Production of Calcium Sulfoaluminate Cements with Natural and Waste Materials**

CANBEK O., ERDOĞAN S. T.

10. Uluslararası Beton Kongresi, Bursa, Turkey, 2 - 04 May 2019

Production of Fly Ash-Magnesium Phosphate Cements

BİLGİNER B. A. , ERDOĞAN S. T.

10. Uluslararası Beton Kongresi, Bursa, Turkey, 2 - 04 May 2019

Production of Silica Fume-Based Geopolymer Foams

SHAKOURİ S., ERDOĞAN S. T.

13th International Congress on Advances in Civil Engineering, İzmir, Turkey, 12 - 14 September 2018

Production of Calcium Sulfoaluminate Cements Using Industrial Byproducts in Turkey

CANBEK O., ERDOĞAN S. T.

13th International Congress on Advances in Civil Engineering, İzmir, Turkey, 12 - 14 September 2018

Oxalate Acid-Base Cements as a Means of Carbon storage

ERDOĞAN S. T.

American Geophysical Union Fall Meeting 2017, 11 - 15 December 2017

Low CO2 Acid Base Binders Made with Fly Ash

ERDOĞAN S. T.

American Geophysical Union Fall Meeting 2016, 11 - 16 December 2016

Thermal Conductivity and Thermal Durability of Ground Perlite Porous Insulation Blocks

ŞAHİN M., ERDOĞAN S. T.

12th International Symposium on Advances in Civil Engineering, 21 September - 23 December 2016

Intumescence and pore structure of alkali activated volcanic glasses upon exposure to high temperatures

ERDOĞAN S. T.

2015 American Geophysical Union Fall Meeting, San Fransisko, United States Of America, 14 - 18 December 2015

Afşin Elbistan Uçucu Külü ve Yüksek Fırın Cürufu İçeren Çimentosuz Bağlayıcılar Hazırlanması

ŞAHİN M., Mahyar M., ERDOĞAN S. T.

9. Ulusal Beton Kongresi, Turkey, 16 - 18 April 2015

Sustainable Stormwater Management on METU Campus Ankara Turkey

G G T., DÜZGÜN H. Ş. , ERDOĞAN S. T. , KENTEL E., ALP E.

Smart and Sustainable Campuses Conference, March 30-31, 2015, University of Maryland, Baltimore USA., 30 - 31 March 2015

Sustainable Stormwater Management on METU Campus

gizem g t., DÜZGÜN H. Ş. , ERDOĞAN S. T. , KENTEL E., ALP E.

Smart and Sustainable Campuses Conference, 30 - 31 March 2015

Development of Inorganic Silicone Polymers from Silica Fume

ERDOĞAN S. T. , TOKYAY M.

7th Asian Symposium on Polymers in Concrete (ASPIC 2012), İstanbul, Turkey, 3 - 05 October 2012, pp.709-716

Chemical and thermal activation of perlite-containing cementitious mixtures

Sağlık A. Ü. , ERDOĞAN S. T.

2nd International Conference on Sustainable Construction Materials and Technologies, Ancona, Italy, 28 - 30 June 2010, pp.1517-1527

Supported Projects

Erdoğan S. T. , TUBITAK Project, ÇEŞİTLİ ENDÜSTRİYEL ATIKLAR KULLANILARAK DÜŞÜK ENERJİLİ ÇİMENTOLAR ELDE EDİLMESİ, 2017 - 2019

TOKYAY M., ERDOĞAN S. T. , TUBITAK Project, Türkiye de mevcut bazı puzolanik malzemelerin özellikleri ile çimento harcı alkali silis tepkimesi gelişmesine etkileri arasında istatistiksel bağımlular geliştirilmesi, 2016 - 2017

ELİAS ÖZKAN S. T. , PEDERGNANA M., ERDOĞAN S. T. , Project Supported by Higher Education Institutions, Impact of additives on the properties of earth plasters, 2015 - 2016

ERDOĞAN S. T. , Project Supported by Higher Education Institutions, Endüstriyel Atıkların Ve Minerallerin Alkalilerle Aktivasyonu Yoluyla Jeopolimerik Yapı Malzemeleri Üretmesi, 2010 - 2010

ERDOĞAN S. T. , Project Supported by Higher Education Institutions, Portland Çimentolarının İçerdiği Bileşenlerin Tanecikler Arası Ve Tanecik İçi Dağılımlarının Belirlenmesi, 2009 - 2010

Memberships / Tasks in Scientific Organizations

American Geophysical Union, Member, 2011 - Continues

Scientific Refereeing

JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, SCI Journal, December 2019

JOURNAL OF BUILDING ENGINEERING, Journal Indexed in SCI-E, December 2019

CONSTRUCTION AND BUILDING MATERIALS, SCI Journal, November 2019

JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, SCI Journal, November 2019

TUBITAK Project, 2219 - Yurt Dışı Doktora Sonrası Araştırma Burs Programı, Aksaray University, Turkey, November 2019

TUBITAK Project, 2219 - Yurt Dışı Doktora Sonrası Araştırma Burs Programı, Duzce University, Turkey, November 2019

TUBITAK Project, 2219 - Yurt Dışı Doktora Sonrası Araştırma Burs Programı, Bayburt University, Turkey, November 2019

TUBITAK Project, 2219 - Yurt Dışı Doktora Sonrası Araştırma Burs Programı, Fırat University, Turkey, November 2019

JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, SCI Journal, October 2019

JOURNAL OF BUILDING ENGINEERING, Journal Indexed in SCI-E, September 2019

CONSTRUCTION AND BUILDING MATERIALS, SCI Journal, August 2019

JOURNAL OF COMPOSITE MATERIALS, Journal Indexed in SCI-E, August 2019

ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, Journal Indexed in SCI-E, July 2019

CONSTRUCTION AND BUILDING MATERIALS, SCI Journal, July 2019

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Mugla Sıtkı Kocman University, Turkey, June 2019

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Bursa Technical University, Turkey, June 2019

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Recep Tayyip Erdogan University, Turkey, June 2019

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Hacettepe University, Turkey, June 2019

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Ozyegin University, Turkey, June 2019

ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, Journal Indexed in SCI-E, April 2019

JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, SCI Journal, April 2019

JOURNAL OF COMPOSITE MATERIALS, Journal Indexed in SCI-E, April 2019

CONSTRUCTION AND BUILDING MATERIALS, SCI Journal, March 2019

JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, SCI Journal, March 2019

CEMENT & CONCRETE COMPOSITES, SCI Journal, March 2019

CONSTRUCTION AND BUILDING MATERIALS, SCI Journal, March 2019

Project Supported by Public Organizations in Other Countries, Fund for Scientific Research-FNRS (F.R.S.-FNRS), Belgium, February 2019

CONSTRUCTION AND BUILDING MATERIALS, SCI Journal, January 2019

advances in civil Engineering Materials, Journal Indexed in ESCI, January 2019

TUBITAK Project, 1002 - Quick Support Program, Harran University, Turkey, January 2019

TUBITAK Project, 1002 - Quick Support Program, Afyon Kocatepe University, Turkey, January 2019
TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Eskişehir Technical University, Turkey, January 2019
PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, Journal Indexed in ESCI, December 2018
CONSTRUCTION AND BUILDING MATERIALS, Journal Indexed in SCI-E, November 2018
TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, TUBITAK, Turkey, November 2018
TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, TUBITAK, Turkey, November 2018
TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, TUBITAK, Turkey, November 2018
TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, TUBITAK, Turkey, November 2018
TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, TUBITAK, Turkey, November 2018
TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, TUBITAK, Turkey, November 2018
JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, Journal Indexed in SCI-E, October 2018
JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, Journal Indexed in SCI-E, October 2018
CEMENT & CONCRETE COMPOSITES, SCI Journal, October 2018
JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, Journal Indexed in SCI-E, September 2018
JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, Journal Indexed in SCI-E, June 2018
JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, Journal Indexed in SCI-E, June 2018
Journal Of Materials In Civil Engineering-Asce, Journal Indexed in SCI-E, May 2018
ISI BILIMI VE TEKNIGI DERGISI-JOURNAL OF THERMAL SCIENCE AND TECHNOLOGY, Journal Indexed in SCI-E, April 2018
CONSTRUCTION AND BUILDING MATERIALS, SCI Journal, April 2018
Journal of Environment and Technology, Other Indexed Journal, March 2018
JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, Journal Indexed in SCI-E, March 2018
Journal of Engineering Science and Technology:An International Journal, Other Indexed Journal, February 2018
JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, Journal Indexed in SCI-E, February 2018
JOURNAL OF COMPOSITE MATERIALS, Journal Indexed in SCI-E, January 2018
JOURNAL OF MATERIALS IN CIVIL ENGINEERING-ASCE, Journal Indexed in SCI-E, January 2018

Tasks In Event Organizations

Erdoğan S. T. , 4. Ulusal Yapı Kongresi ve Sergisi, Scientific Congress, Antalya, Turkey, Aralık 2018

Citations

Total Citations (WOS):577

h-index (WOS):11

Awards

Erdoğan S. T. , ODTU Genc Arastirmaci Basari Odulleri, Odtu Genc Arastirmaci Basari Odulleri, April 2015