

## Asst. Prof. HANDE IŞIK ÖZTÜRK

### Personal Information

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: AAR-1159-2020

ScopusID: 57210163939

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### Education Information

Doctorate, Michigan State University, United States Of America 2009 - 2013

Postgraduate, Michigan State University, United States Of America 2009 - 2011

Postgraduate, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, Turkey 2005 - 2007

Undergraduate, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, Turkey 2001 - 2005

### Dissertations

Doctorate, Quantification of quality of foamed Warm Mix Asphalt binders and mixtures, Michigan State University, 2007

Postgraduate, Parametric study on selected mathematical models for dynamic creep behavior of asphalt concrete, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 2007

### Research Areas

Civil Engineering, Transportation Engineering, Highways, Engineering and Technology

### Academic Titles / Tasks

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

Assistant Professor, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, 2015 - 2018

### Courses

Highway Maintenance and Rehabilitation, Undergraduate, 2018 - 2019

## Advising Theses

Tüdeş Yaman H., Öztürk H. I. , Parking management in smart built environment: Evaluation of METU campus, Postgraduate, V.GENEL(Student), 2020

Atasoy Özcan G., Öztürk H. I. , Assessment of applicability of performance-based contracts in Turkey for road maintenance services, Postgraduate, K.ATEŞ(Student), 2019

Öztürk H. I. , EFFECT OF WARM MIX ADDITIVES ON COMPACTABILITY OF MIXTURES, Postgraduate, Ö.CAN(Student), 2019

ÖZTÜRK H. I. , Dry Process Crumb Rubber Modification in Warm Mix Asphalt, Postgraduate, F.Kamran(Student), 2018

## Designed Lessons

Öztürk H. I. , RIGID PAVEMENT DESIGN AND ANALYSIS , Postgraduate, 2016 - 2017

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

- I. **Challenges and Benefits of the Use of AASHTOWare for 3 Climatic Regions in Turkey**  
İPEKYÜZ B., TÜYDEŞ YAMAN H., ÖZTÜRK H. I.  
TEKNIK DERGI, vol.33, no.5, pp.12473-12499, 2022 (SCI-Expanded)
- II. **Evaluation of Warm Mix Asphalt compactability indices using laboratory compactors from a temperature perspective**  
ÖZTÜRK H. I. , Pamuk O. C.  
INTERNATIONAL JOURNAL OF PAVEMENT ENGINEERING, vol.23, no.10, pp.3621-3632, 2022 (SCI-Expanded)
- III. **The Effect of Mixture Parameters on the Surface Properties of Roller Compacted Concrete (RCC) Pavements**  
SHABANI R., ŞENGÜN E., Ozturk H. I. , YAMAN İ. Ö.  
TEKNIK DERGI, vol.32, no.5, pp.11153-11174, 2021 (SCI-Expanded)
- IV. **Influence of warm mix additive on internal structure of dry process crumb rubber modified mixtures**  
Yucel A. O. , ÖZTÜRK H. I. , GÜLER M.  
Journal of Cleaner Production, vol.313, 2021 (SCI-Expanded)
- V. **Superpave Gyratory Compactor as an Alternative Design Method for Roller Compacted Concrete in the Laboratory**  
SHABANI R., ŞENGÜN E., Ozturk H. I. , ALEESSA ALAM B., YAMAN İ. Ö.  
Journal of Materials in Civil Engineering, vol.33, no.6, 2021 (SCI-Expanded)
- VI. **Predicted impact of design parameters in asphalt concrete layers on pavement performance**  
Shakhan M. R. , TOPAL A., ŞENGÖZ B., ÖZTÜRK H. I.  
Proceedings of the Institution of Civil Engineers: Transport, 2021 (SCI-Expanded)
- VII. **A photogrammetry based method for determination of 3D morphological indices of coarse aggregates**  
ÖZTÜRK H. I. , Rashidzade I.  
Construction and Building Materials, vol.262, 2020 (SCI-Expanded)
- VIII. **Comparison of Mechanistic-Empirical and Traditional Rigid Pavement Design Methods: Afyon-Emirdag Trial Section**  
ŞENGÜN E., Ozturk H., YAMAN İ. Ö.  
TEKNIK DERGI, vol.31, no.5, pp.10251-10274, 2020 (SCI-Expanded)
- IX. **Laboratory evaluation of dry process crumb rubber modified mixtures containing Warm Mix Asphalt Additives**  
ÖZTÜRK H. I. , Kamran F.

Construction and Building Materials, vol.229, 2019 (SCI-Expanded)

- X. **Comparison of jointed plain concrete pavement systems designed by mechanisticempirical (M-E) method for different traffic, subgrade, material and climatic conditions Farkli trafik, zemin, malzeme ve iklim kosullari için mekanistik-ampirik (M-E) yöntemle tasarlanan derzli donatisiz rijit üstyapi sistemlerinin karsilastirilmesi**  
ÖZTÜRK H. I. , Tan E. B. , ŞENGÜN E., YAMAN İ. Ö.  
Journal of the Faculty of Engineering and Architecture of Gazi University, vol.34, no.2, pp.771-783, 2019 (SCI-Expanded)
- XI. **An artificial neural network model for virtual Superpave asphalt mixture design**  
Ozturk H. I. , Kutay M. E.  
INTERNATIONAL JOURNAL OF PAVEMENT ENGINEERING, vol.15, no.2, pp.151-162, 2014 (SCI-Expanded)
- XII. **Sensitivity of Nozzle-Based Foamed Asphalt Binder Characteristics to Foaming Parameters**  
Ozturk H. I. , Kutay M. E.  
TRANSPORTATION RESEARCH RECORD, no.2444, pp.120-129, 2014 (SCI-Expanded)
- XIII. **Novel testing procedure for assessment of quality of foamed warm mix asphalt binders**  
Ozturk H. I. , Kutay M. E.  
Journal of Materials in Civil Engineering, vol.26, no.8, 2014 (SCI-Expanded)
- XIV. **Investigation of Moisture Dissipation in Foam-Based Warm Mix Asphalt Using Synchrotron-Based X-Ray Microtomography**  
Kutay M. E. , Ozturk H. I.  
Journal of Materials in Civil Engineering, vol.24, no.6, pp.674-683, 2012 (SCI-Expanded)
- XV. **Comparison of 2D and 3D image-based aggregate morphological indices**  
Kutay M. E. , Ozturk H. I. , Abbas A. R. , Hu C.  
INTERNATIONAL JOURNAL OF PAVEMENT ENGINEERING, vol.12, no.4, pp.421-431, 2011 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Examination of suitability of performance based contracts for the Turkish road maintenance sector**  
ATEŞ K., ATASOY ÖZCAN G., ÖZTÜRK H. I.  
Journal of Construction Engineering, Management Innovation, vol.3, no.3, pp.179-192, 2020 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Determination of Aggregate Morphological Indices through Photogrammetry**  
ÖZTÜRK H. I. , RASHIDZADE I.  
Transportation Research Board (TRB) 99th Annual Meeting, Washington, Kiribati, 12 - 16 January 2020
- II. **INVESTIGATION OF THE SHIP-GENERATED WASTE AS BINDER MODIFIER**  
Öztürk H. I. , Kamran F., Güler M.  
7th International Conference Bituminous Mixtures and Pavements, Thessaloniki, Greece, 12 - 14 June 2019, pp.36-40
- III. **The Evaluation of the Superpave Gyrotory Compaction Method for Roller Compacted Concrete Mixture Design**  
Shabani R., Şengün E., Öztürk H. I. , Aleessa Alam B., Yaman İ. Ö.  
2019 Transportation Reseach Board Annual Meeting, Washington, United States Of America, 13 - 17 January 2019, pp.1-4
- IV. **From Smart Sustainable Cities to Smart Buildings: a Top to Bottom Approach**  
Parlak A. S. , Atasoy G. , Öztürk H. I. , Akçamete Güngör A., Dikmen Toker İ., Tüydeş Yaman H.  
5th international Project and Construction Management Conference (IPCMC2018), Girne, Cyprus (Kktc), 16 - 18

November 2018

- V. **Categorization of Smartness in Smart Built Environments**  
Kaş S., Akçamete Güngör A., Öztürk H. I. , Genel V., Atasoy G.  
5th international Project and Construction Management Conference (IPCMC2018), Girne, Cyprus (Kkct), 16 - 18 November 2018
- VI. **Effect of Dry Process Crumb Rubber Modification on the Compactibility of Warm and Hot Mix Asphalt**  
ÖZTÜRK H. I. , KAMRAN F.  
Asphalt Rubber Conference- RAR 2018, Kruger National Park, South Africa, 25 - 28 September 2018
- VII. **Perception of parking pricing and willingness-to-pay (WTP): A preliminary evaluation among METU campus users**  
İPEKYÜZ B., GENEL V., ÖZTÜRK O. F. , ÖZ B., ÖZTÜRK H. I. , TÜYDEŞ YAMAN H.  
13th International Congress on Advances in Civil Engineering, 12 - 14 September 2018
- VIII. **Strategic Plan for the Implementation and Monitoring of Performance-based Maintenance Contracting (PBMC) for Turkish Construction Sector**  
Öztürk H. I. , Atasoy G., Ateş K.  
13th INTERNATIONAL CONGRESS ON ADVANCES IN CIVIL ENGINEERING, İzmir, Turkey, 12 - 14 August 2018
- IX. **Effect of Compaction Temperatures on the Warm Mix Asphalt Volumetrics and Stability**  
ÖZTÜRK H. I. , PAMUK Ö. C.  
Tenth International Conference on the Bearing Capacity of Roads, Railways and Airfields, Atina, 28 June - 30 December 2017
- X. **İklim Değişikliğinin Asfalt Kaplamaları üzerindeki etkileri ve yeni yapım stratejileri**  
ÖZTÜRK H. I.  
7. Ulusal Asfalt Sempozyumu, Ankara, Turkey, 29 - 30 November 2017
- XI. **Effect of Conditioning Time and Temperature on the Volumetrics and Stability of Dry Process Crumb Rubber Modified Warm Asphalt Mixtures**  
ÖZTÜRK H. I. , KAMRAN F.  
18th World Road Meeting, Delhi, India, 14 - 17 November 2017
- XII. **First Step of Application of Mechanistic and Empirical Pavement Design for Turkey: Processing Climate Data**  
ÖZTÜRK H. I. , KİRAN E.  
12. International Congress on Advances in Civil Engineering, 21 - 23 September 2016
- XIII. **An artificial neural network base prediction model and sensitivity analysis for Marshall Mix Design**  
ÖZTÜRK H. I. , SAGLIK A., DEMİR B., GUNGOR A. G.  
6th Euroasphalt and Eurobitume Congress, 1 - 03 June 2016
- XIV. **Investigation of Blending of RAP and RAS binder into virgin binder at Mixture level using fatigue tests and image correlation**  
KUTAY M. E. , MOGAWER W., ÖZTÜRK H. I. , AUSTERMAN A., KRÇMARİK M.  
Transportation Research Board 96th Annual Meeting, 10 - 14 January 2016
- XV. **Effect of Foamed Binder Characteristics on Warm-Mix Asphalt Performance**  
ÖZTÜRK H. I. , KUTAY M. E.  
Transportation Research Board 93rd Annual Meeting Compendium Papers, Washington,DC, 12 - 16 January 2014
- XVI. **Characterization of Asphalt Materials Common to Michigan in Support of the Implementation of the Mechanistic-Empirical Pavement Design Guide**  
JAMRAH A., KUTAY M. E. , ÖZTÜRK H. I.  
Transportation Research Record 93rd Annual Meeting Compendium Papers, Washington, Kiribati, 12 - 16 January 2014
- XVII. **Püskürtme Tekniğiyle Üretilen Köpük Bitümlü Ilık Karışım Asfalt Üretimi**  
Öztürk H. I.  
6. Ulusal Asfalt Sempozyumu ve Sergisi, Ankara, Turkey, 27 November 2013, pp.100-107
- XVIII. **Lastik Modifiyeli Bitümlerin Sıcak Karışımlarda Kullanım Potansiyelleri**

ÖZTÜRK H. I. , KUTAY M. E.

6. Ulusal Asfalt Sempozyumu ve Sergisi, Ankara, Turkey, 27 - 28 November 2013, pp.442-451

**XIX. Internal structure characteristics of crumb rubber modified asphalt binders: An analysis using 3D X-ray Microtomography Imaging**

KUTAY M. E. , ÖZTÜRK H. I.

Asphalt Rubber Conference, Munich, Germany, 23 - 26 October 2012

**XX. Improving Efficiency of Asphalt Mix Design using Artificial Neural Networks**

ÖZTÜRK H. I. , KUTAY M. E.

10th International Congress on Advances in Civil Engineering (ACE 2012), Ankara, Turkey, 17 - 19 October 2012

**XXI. Impact of crumb rubber modified binder preparation process on hot mix asphalt performance**

ÖZTÜRK H. I. , TAŞÇIOĞLU B. , KUTAY M. E. , LITTRUP G.

5th Eurasphalt and Eurobitume Congress, İstanbul, Turkey, 13 - 15 June 2012

**XXII. 3D Micromechanical Simulation of Compaction of Hot Mix Asphalt Using Real Aggregate Shapes Obtained from X-Ray CT**

KUTAY M. E. , ÖZTÜRK H. I. , GIBSON N.

Pavements and Materials: Characterization and Modeling Symposium at EMI Conference 2010, California, United States Of America, 8 - 10 August 2010

## Supported Projects

GÜLER M., ÖZTÜRK H. I. , Project Supported by Higher Education Institutions, Boşluk Oranı ve Agregada Gradasyonunun Asfalt Betonun Isıl İletkenlik Katsayısına Etkisinin İncelenmesi, 2021 - Continues

Öztürk H. I. , Özer A. T. , TUBITAK Project, Geleneksel Geofoam Blok Otoyol Dolguları İçin Farklı Esnek Üst Yapı Konfigürasyonlarının Prototip Modeller Ve Sayısal Analizler ile İncelenmesi, 2021 - 2024

ATASOY ÖZCAN G., ÖZTÜRK H. I. , AKÇAMETE GÜNGÖR A., DİKMEN TOKER İ., TÜYDEŞ YAMAN H., Project Supported by Higher Education Institutions, AKILLI YAPILI ÇEVRE (AYÇ) DÖNÜŞÜM İSTERLERİNİN BELİRLENMESİ: ODTÜ YERLEŞKESİ ARAŞTIRMA PARKI VAKA ÇALIŞMASI, 2017 - 2020

ÖZTÜRK H. I. , CAN PAMUK Ö., Project Supported by Higher Education Institutions, ILIK KARIŞIM ASFALT KATKILARININ KARIŞIMLARIN SIKIŞTIRILABİLİRLİĞİ ETKİSİNİN İNCELENMESİ, 2018 - 2019

ÖZTÜRK H. I. , GÜLER M., Project Supported by Higher Education Institutions, Performans bazlı asfalt karışım deneylerinin yapılabilmesi için altyapı geliştirilmesi, 2016 - 2019

## Patent

Öztürk H. I. , Asphalt foam collapse test methods and related apparatus, Patent, CHAPTER B Implementation of Operations; Transport, The Invention Registration Number: 20140360406 , Standard Registration, 2018

## Scientific Consultations

Çanakkale Liman İşletmesi Sanayi Ticaret A.Ş., Project Consultancy, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, Turkey, 2018 - 2018

## Metrics

Publication: 39

Citation (WoS): 154

Citation (Scopus): 190

H-Index (WoS): 7

H-Index (Scopus): 8