#### Prof. MURAT GÜLER

### **Personal Information**

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#### **International Researcher IDs**

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Publons / Web Of Science ResearcherID: AAR-1150-2020

ScopusID: 57198106914 Yoksis Researcher ID: 163719

### **Education Information**

Doctorate, The University of Wisconsin Madison, United States Of America 1997 - 2002

Postgraduate, The University of Wisconsin Madison, United States Of America 1995 - 1997

Undergraduate, Karadeniz Technical University, Mühendislik-Mimarlık Fakültesi, İnşaat Mühendisliği Pr., Turkey 1988 - 1992

# Foreign Languages

English, C1 Advanced

### **Dissertations**

Doctorate, Characterization of hot mixture asphalt shear resistance and correlation with rutting performance, The University Of Wisconsin Madison, 2002

 $Postgraduate, Applications\ of\ digital\ image\ analysis\ and\ processing\ methods\ in\ studying\ soil\ characteristics.\ , The\ University\ Of\ Wisconsin\ Madison,\ 1997$ 

#### **Research Areas**

Civil Engineering

# **Academic Titles / Tasks**

Professor, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 2014 - Continues Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 2009 - 2014

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 2005 - 2008

Lecturer PhD, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 2004 - 2005

Lecturer PhD, University of Maryland, Civil And Env. Eng., 2003 - 2003

Assistant Professor, Bucknell University, Civil Engineering, 2002 - 2003

Lecturer, The University of Wisconsin Madison, Engineering Mech. And Astronautics, 2001 - 2002

Lecturer, The University of Wisconsin Madison, Department Of Mathematics, 2000 - 2000

Research Assistant, The University of Wisconsin Madison, Civil And Envr. Eng., 1997 - 2000

Lecturer, Ataturk University, Erzincan Meslek Yüksekokulu, İnşaat Pr., 1994 - 1994

# **Advising Theses**

GÜLER M., Investigation of variatons in performance properties of asphalt concrete using image-based finite element model, Doctorate, Y.KARAKAYA(Student), 2022

GÜLER M., Utilization of borax sludge in soft soil subgrade stabilization., Postgraduate, C.CEYLAN(Student), 2015

GÜLER M., Low temperature performance of asphalt concrete under direct tension loading, Postgraduate,

Y.KARAKAYA(Student), 2015

GÜLER M., Utilization of borax sludge in soft subgrade soil stabilization, Postgraduate, C.Ceylan(Student), 2015

GÜLER M., The influence of different mixture design variables on thermal fatigue cracking of asphalt concrete pavements, Postgraduate, A.ARABZADEH(Student), 2014

GÜLER M., The Influence of different mixture design variables on thermal fatigue cracking of asphalt concrete pavements /, Postgraduate, A.Arabzadeh(Student), 2014

GÜLER M., Design of crack free, durable and ductile concrete for sustainable highway rigid pavement overlays,

Doctorate, H.ERHAN(Student), 2013

ÇOKÇA E., GÜLER M., Improvement of bearing capacity of a soft soil by the addition of fly ash, Postgraduate,

M.AZİZ(Student), 2011

GÜLER M., Evaluation of resilient modulus estimation methods for asphalt mixtures based on laboratory measurements, Postgraduate, C.DEMİRCİ(Student), 2010

GÜLER M., Investigation of low temperature cracking in asphalt concrete pavement, Doctorate, A.QADIR(Student), 2010

GÜLER M., Effect of recycled cement concrete content on rutting behavior of asphalt concrete, Postgraduate,

W.AHMED(Student), 2008

GÜLER M., Relationship between resilient modulus and soil index properties of unbound materials, Postgraduate, E.ÇÖLERİ(Student), 2007

YAMAN İ. Ö., GÜLER M., Investigation of relationship between aggregate shape parameters and concrete strength using imaging techniques, Postgraduate, M.ÖZEN(Student), 2007

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

 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)

II. QUANTIFICATION OF SEGREGATION IN PORTLAND CEMENT CONCRETE BASED ON SPATIAL DISTRIBUTION OF AGGREGATE SIZE FRACTIONS

ÖZEN M., GÜLER M.

IMAGE ANALYSIS & STEREOLOGY, vol.39, no.3, pp.147-159, 2020 (SCI-Expanded)

III. Thermal fatigue behavior of asphalt concrete: A laboratory-based investigation approach Arabzadeh A., GÜLER M.

INTERNATIONAL JOURNAL OF FATIGUE, vol.121, pp.229-236, 2019 (SCI-Expanded)

IV. Investigation of glass transition temperature of asphalt concrete Qadir A., Güler M.

Journal Of Testing And Evaluation, vol.45, no.5, pp.1680-1690, 2017 (SCI-Expanded)

V. Rutting susceptibility of asphalt concrete with recycled concrete aggregate using revised Marshall procedure

Gul W. A., GÜLER M.

CONSTRUCTION AND BUILDING MATERIALS, vol.55, pp.341-349, 2014 (SCI-Expanded)

VI. Assessment of optimum threshold and particle shape parameter for the image analysis of aggregate size distribution of concrete sections

Ozen M., GÜLER M.

OPTICS AND LASERS IN ENGINEERING, vol.53, pp.122-132, 2014 (SCI-Expanded)

VII. Thin ECC overlay systems for rehabilitation of rigid concrete pavements

Yucel H. E., Jashami H., Sahmaran M., GÜLER M., Sahmaran M.

MAGAZINE OF CONCRETE RESEARCH, vol.65, no.2, pp.108-120, 2013 (SCI-Expanded)

VIII. Determination of displacement distributions in bolted steel tension elements using digital image techniques

SÖZEN Ş., GÜLER M.

OPTICS AND LASERS IN ENGINEERING, vol.49, no.12, pp.1428-1435, 2011 (SCI-Expanded)

IX. Evaluation of high temperature performance of SBS plus Gilsonite modified binder KÖK B. V., YILMAZ M., GÜLER M.

FUEL, vol.90, no.10, pp.3093-3099, 2011 (SCI-Expanded)

X. Prediction of Subgrade Resilient Modulus Using Genetic Algorithm and Curve-Shifting Methodology Alternative to Nonlinear Constitutive Models

Coleri E., GÜLER M., Gungor A. G., Harvey J. T.

TRANSPORTATION RESEARCH RECORD, no.2170, pp.64-73, 2010 (SCI-Expanded)

XI. Effects of mix design variables on mechanical properties of hot mix asphalt Guler M.

JOURNAL OF TRANSPORTATION ENGINEERING, vol.134, no.3, pp.128-136, 2008 (SCI-Expanded)

XII. Analysis of factors affecting strain distribution in geosynthetics

Kutay M., Guler M., Aydilek A.

JOURNAL OF GEOTECHNICAL AND GEOENVIRONMENTAL ENGINEERING, vol.132, no.1, pp.1-11, 2006 (SCI-Expanded)

### Articles Published in Other Journals

I. THE POLYMER EFFECTS ON BITUMEN PERFORMANCE PROPERTIES IN KAZAKHSTAN

Samal K., GÜLER M., Daniyar B., Zhanar K., Aigul K.

International Journal of GEOMATE, vol.23, no.100, pp.34-43, 2022 (ESCI)

### **Books & Book Chapters**

I. Characterization of Homogeneity of Asphalt Concrete Using 2D Cross-Sectional Images YÜCEL A. Ö., GÜLER M.

in: Lecture Notes in Civil Engineering, Biswajeet Pradhan, Editor, Springer, Singapore, pp.273-281, 2018

### Refereed Congress / Symposium Publications in Proceedings

I. INVESTIGATION OF THE SHIP-GENERATED WASTE AS BINDER MODIFIER

Öztürk H. I., Kamran F., Güler M.

7th International Conference Bitiminous Mixtures and Pavements, Thessaloniki, Greece, 12 - 14 June 2019, pp.36-

II. Evaluation of Laboratory Performance of Zycotherm Additive for Extended Moisture Resistance of HMA Pavements

Güler M., Karakaya Y., Varlı B.

INTERNATIONAL CIVIL ENGINEERING AND ARC HITECTURE CONFERE NCE 2019, Trabzon, Turkey, 17 - 20 April 2019, pp.1-10

III. Investigation of the ship-generated waste as binder modifie

ÖZTÜRK H. I., Kamrans F., GÜLER M.

7th International Conference on Bituminous Mixtures and Pavements, ICONFBMP 2019, Thessaloniki, Greece, 12 - 14 June 2019, pp.36-40

IV. Evaluation of Aggregate Size Effect on Asphalt Mixture Homogeneity Using Image Analysis YÜCEL A. Ö., GÜLER M.

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

V. Application of Voronoi Polygons and 3-Point Correlation for Identifying Uniformity of the Concrete Samples

ÖZEN M., GÜLER M.

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

VI. Characterization of Homogeneity of Asphalt Concrete Using 2D Cross Sectional Images YÜCEL A. Ö., GÜLER M.

Global Civil Engineering Conference (GCEC2017), Kuala-Lumpur, Malaysia, 26 - 28 July 2017

VII. Identifying an Optimal Shape Parameter to Estimate Grain Size Distribution of Concrete Samples
Using Imaging Techniques

ÖZEN M., YAMAN İ. Ö., GÜLER M.

10th International Congress on Advances in Civil Engineering, 17 - 19 October 2012

VIII. Finite Element Modelling of Thermal Stress Restrained Specimen Test

QUADIR A., GÜLER M.

5th Eurasphalt & Eurobitume Congress, 13 - 15 June 2012

IX. Effect of Aggregate Type and Rate of Temperature Change on Fracture Strength of Asphalt Concrete QUADIR A., GÜLER M.

5th International Conference on Bituminous Mixtures and Pavements, 2 - 03 June 2011

X. Determination of Deformation Distributions in Welded Steel Tension Elements Using Digital Image Techniques

SÖZEN Ş., GÜLER M.

9th International Congress on Advances in Civil Engineering, 27 - 30 September 2010

XI. Using Dynamic Modulus as an Indicator for Thermal Strength of Asphalt Concrete OUADIR A., GÜLER M.

First Meeting and Technical Conference of the Middle East Society of Asphalt Technologists, 5 - 08 July 2010

XII. Rutting behavior of asphalt concrete modified with recycled concrete aggregate GUL W. A., GÜLER M.

The 6th International Congress on Maintenance and Rehabilitation of Pavements and Technological Control, 8 - 10 Iuly 2009

XIII. Correlation between light falling weight deflectometer results and laboratory measured elastic response of unbound materials

Coleri E., GÜLER M., Avsar C., Gungor A. G., Ozay O.

4th International Symposium on Deformation Characteristics of Geomaterials, Georgia, United States Of America, 22 - 24 September 2008, pp.831-837

XIV. Compaction Behaviour of Hot Mix Asphalt Using a Compaction Simulation Model GÜLER M.

Transport Research Arena Europe 2008, 21 - 24 September 2008

XV. Investigation of Relationship between Aggregate Shape Parameters and Concrete Strength Using Imaging Techniques

ÖZEN M., YAMAN İ. Ö., GÜLER M.

8th International Congress on Advances in Civil Engineering, 15 - 17 September 2008

XVI. Measurement of Small Strains in Steel Samples Using Digital Imaging Techniques SÖZEN Ş., GÜLER M.

8th International Congress on Advances in Civil Engineering, 15 - 17 September 2008

XVII. Rutting Potential of Asphalt Mixtures Using Concept of Shear Resistance GÜLER M., BOSSCHER P.

Rutting Potential of Asphalt Mixtures Using Concept of Shear Resistance, 12 - 15 June 2006

### **Supported Projects**

ÖZTÜRK H. I., GÜLER M., Project Supported by Higher Education Institutions, Ağırlıklı ölçümüne dayalı DARA yöntemi ile bitümlü bağlayıcıların kimyasal özelliklerinin incelenmesi ve fiziksel ve reolojik özelliklere etkisinin belirlenmesi, 2021 - 2024

GÜLER M., KARAKAYA Y., Project Supported by Higher Education Institutions, GERİ DÖNÜŞÜMÜ YAPILAN KARIŞIMLARIN SONLU ELEMANLAR YÖNTEMİ İLE İNCELENMESİ, 2018 - 2020

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

GÜLER M., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2015

GÜLER M., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

#### **Metrics**

Publication: 31 Citation (WoS): 190 Citation (Scopus): 275 H-Index (WoS): 8 H-Index (Scopus): 8

# Non Academic Experience

METU University of Maryland Bucknell University