

# Prof. MURAT GÜLER

## Personal Information

**Office Phone:** [+90 312 210 2464](tel:+903122102464)

**Fax Phone:** [+90 312 210 5401](tel:+903122105401)

**Email:** [gmurat@metu.edu.tr](mailto:gmurat@metu.edu.tr)

**Web:** <https://avesis.metu.edu.tr/gmurat>

## Education Information

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

Post Graduate, The University Of Wisconsin Madison, United States Of America 1995 - 1997

Under Graduate, Karadeniz Teknik Üniversitesi, 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

Post Graduate, 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, Atatürk Üniversitesi, Erzincan Meslek Yüksekokulu, İnşaat Pr., 1994 - 1994

## Advising Theses

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

Y.KARAKAYA(Student), 2015

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

GÜLER M., The influence of different mixture design variables on thermal fatigue cracking of asphalt concrete pavements, Post Graduate, 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, Post Graduate, M.AZİZ(Student), 2011

GÜLER M., Evaluation of resilient modulus estimation methods for asphalt mixtures based on laboratory measurements, Post Graduate, 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, Post Graduate, W.AHMED(Student), 2008

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

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

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

- **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 (Journal Indexed in SCI)
- **Rutting susceptibility of asphalt concrete with recycled concrete aggregate using revised Marshall procedure**  
Gül W. A. , GÜLER M.  
CONSTRUCTION AND BUILDING MATERIALS, vol.55, pp.341-349, 2014 (Journal Indexed in SCI)
- **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 (Journal Indexed in SCI)
- **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, pp.108-120, 2013 (Journal Indexed in SCI)
- **Determination of displacement distributions in bolted steel tension elements using digital image techniques**  
SÖZEN Ş., GÜLER M.  
OPTICS AND LASERS IN ENGINEERING, vol.49, pp.1428-1435, 2011 (Journal Indexed in SCI)
- **Evaluation of high temperature performance of SBS plus Gilsonite modified binder**  
KÖK B. V. , YILMAZ M., GÜLER M.  
FUEL, vol.90, pp.3093-3099, 2011 (Journal Indexed in SCI)
- **Measurement of charm production in neutrino charged-current interactions**  
Kayis-Topaksu A., Onengut G., van Dantzig R., de Jong M., Oldeman R. G. C. , Guler M., Kose U., Tolun P., Catanesi M. G. , Muciaccia M. T. , et al.  
NEW JOURNAL OF PHYSICS, vol.13, 2011 (Journal Indexed in SCI)
- **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, pp.64-73, 2010 (Journal Indexed in SCI)
- **Effects of mix design variables on mechanical properties of hot mix asphalt**  
Guler M.  
JOURNAL OF TRANSPORTATION ENGINEERING, vol.134, pp.128-136, 2008 (Journal Indexed in SCI)
- **Measurement of nucleon structure functions in neutrino scattering**

Onengut G., van Dantzig R., de Jong M., Oldeman R., Guler M., Kama S., Kose U., Serin-Zeyrek M., Tolun P., Catanesi M., et al.

PHYSICS LETTERS B, vol.632, pp.65-75, 2006 (Journal Indexed in SCI)

- **Analysis of factors affecting strain distribution in geosynthetics**

Kutay M., Guler M., Aydılek A.

JOURNAL OF GEOTECHNICAL AND GEOENVIRONMENTAL ENGINEERING, vol.132, pp.1-11, 2006 (Journal Indexed in SCI)

- **Measurement of topological muonic branching ratios of charmed hadrons produced in neutrino-induced charged-current interactions**

Kayis-Topaksu A., Onengut G., van Dantzig R., de Jong M., Oldeman R., Guler M., Kose U., Tolun P., Catanesi M., Muciaccia M., et al.

PHYSICS LETTERS B, vol.626, pp.24-34, 2005 (Journal Indexed in SCI)

- **Search for superfragments and measurement of the production of hyperfragments in neutrino-nucleus interactions**

Onengut G., van Dantzig R., de Jong M., Oldeman R., Guler M., Kose U., Tolun P., Catanesi M., Muciaccia M., Winter K., et al.

NUCLEAR PHYSICS B, vol.718, pp.35-54, 2005 (Journal Indexed in SCI)

- **Measurement of  $D^{*+}$  production in charged-current neutrino interactions**

Onengut G., van Dantzig R., de Jong M., Oldeman R., Guler M., Kose U., Tolun P., Catanesi M., Muciaccia M., de Vyver B., et al.

PHYSICS LETTERS B, vol.614, pp.155-164, 2005 (Journal Indexed in SCI)

- **Measurements of  $D^0$  production and of decay branching fractions in neutrino-nucleon scattering**

Onengut G., van Dantzig R., de Jong M., Oldeman R., Guler M., Kose U., Tolun P., Catanesi M., Muciaccia M., Winter K., et al.

PHYSICS LETTERS B, vol.613, pp.105-117, 2005 (Journal Indexed in SCI)

- **Nuclear emulsions in a large, hybrid experiment (CHORUS) to search for  $\nu(\mu) \rightarrow \nu(\tau)$  oscillations**

Aoki S., Barbuto E., Bozza C., Fabre J., Flegel W., Grella G., Guler M., Hara T., Hoshino K., Ishii Y., et al.

NUCLEAR INSTRUMENTS & METHODS IN PHYSICS RESEARCH SECTION A-ACCELERATORS

SPECTROMETERS DETECTORS AND ASSOCIATED EQUIPMENT, vol.447, pp.361-376, 2000 (Journal Indexed in SCI)

- **Built-in self-test generator design using nonuniform cellular automata model**

Guler M., Kilic H.

IEE PROCEEDINGS-CIRCUITS DEVICES AND SYSTEMS, vol.145, pp.155-161, 1998 (Journal Indexed in SCI)

- **SYMBOLIC EVALUATION OF THE ERICKSEN-LESLIE EQUATIONS IN THE COMPUTATION DOMAIN**

GULER M.

JOURNAL OF NON-NEWTONIAN FLUID MECHANICS, vol.52, pp.309-321, 1994 (Journal Indexed in SCI)

## Refereed Congress / Symposium Publications in Proceedings

- **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 June - 14 September 2019, pp.36-40

- **Evaluation of Laboratory Performance of Zycotherm Additive for Extended Moisture Resistance of HMA Pavements**

Güler M., Karakaya Y., Varlı B.

INTERNATIONAL CIVIL ENGINEERING AND ARCHITECTURE CONFERENCE 2019, Trabzon, Turkey, 17 - 20 April 2019, pp.1-10

- **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

- **A BINARY-INPUT SUPERVISED NEURAL UNIT THAT FORMS INPUT DEPENDENT HIGHER-ORDER SYNAPTIC CORRELATIONS**

GULER M., SAHIN E.

1994 International-Neural-Network-Society Annual Meeting - World Congress on Neural Networks-San Diego, California, United States Of America, 5 - 09 June 1994

- **IMPLEMENTATION ISSUES OF AN EFFICIENT DEPENDENCE ANALYSIS COMPONENT FOR PARALLELIZING COMPILERS**

ALAYYOUB A., TERZIOGLU T., GULER M.

2ND SYMP ON HIGH PERFORMANCE COMPUTING, Montpellier, France, 7 - 09 October 1991, pp.103-113

## Supported Projects

GÜLER M., KARAKAYA Y., Project Supported by Higher Education Institutions, GERİ DÖNÜŞÜMÜ YAPILAN KARIŞIMLARIN SONLU ELEMENLAR 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

## Citations

Total Citations (WOS):360

h-index (WOS):9