

Asst. Prof. ONUR PEKCAN

Personal Information

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Education Information

Post Graduate, Middle East Technical University, Faculty Of Engineering, Department Of Civil Engineering, Turkey 1999 - 2001

Under Graduate, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, Turkey 1994 - 1999

Foreign Languages

English, C1 Advanced

Dissertations

Post Graduate, "Cyclic behaviour of Adapazarı clayey silts", Middle East Technical University, Graduate School of Natural and Applied Sciences, İnşaat Mühendisliği (Y) (Tezli), 2001

Research Areas

Land Information Systems, Overhead Photogrammetry, Geodesy and Photogrammetry, Transportation Engineering, Tunnels, Highways, Transportation Engineering, Geotechnical, Internet-GIS, 3D-Modeling, Laser Scanning

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, 2013 - 2018

Lecturer, Middle East Technical University, Faculty of Engineering, Department of Civil Engineering, 2011 - 2013

Advising Theses

Pekcan O., REAL-TIME SIMULATION OF SOIL–TOOL INTERACTION USING ADVANCED SOIL MODELS, Post Graduate, M.GÜRBÜZ(Student), 2019

Pekcan O., Metaheuristic Based Soil Parameter Identification In Deep Excavations, Post Graduate, A.AKGÜL(Student), 2019

Pekcan O., Improving Deformation Characteristics of Sand Soils Using Bio-improvement Methods, Post Graduate, M.TUNALI(Student), 2019

Pekcan O., Performance of Short Anchors Inside the Failure Wedge, Post Graduate, B.DEMİR(Student), 2019

PEKCAN O., Integrated limit equilibrium method for slope stability analysis, Post Graduate, Y.YALÇIN(Student), 2018
PEKCAN O., Application of recent optimization algorithms on slope stability problems, Post Graduate, S.AZIZI(Student), 2018
PEKCAN O., Metaheuristic based backcalculation of rock mass parameters around tunnels, Post Graduate, G.GEDİK(Student), 2018
PEKCAN O., Unmanned aerial vehicle based visualization of deep excavations using game engines, Post Graduate, T.TEKE(Student), 2016
PEKCAN O., An experimental investigation for improvement of sands using microbially induced calcium carbonate precipitation, Post Graduate, Y.EMRE(Student), 2016
PEKCAN O., Development of UAV-based pavement crack identification system using artificial intelligence, Post Graduate, A.BAHADDİN(Student), 2016
PEKCAN O., ÇOKÇA E., Estimating swelling characteristics of clays using methylene blue test: A machine learning approach, Post Graduate, G.DİDEM(Student), 2014
PEKCAN O., Backcalculation of pavement layer properties using artificial neural network based gravitational search algorithm, Post Graduate, A.ÖCAL(Student), 2014

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

- **Nuclear Fission-Nuclear Fusion algorithm for global optimization: a modified Big Bang-Big Crunch algorithm**
YALÇIN Y., PEKCAN O.
NEURAL COMPUTING & APPLICATIONS, vol.32, pp.2751-2783, 2020 (Journal Indexed in SCI)
- **Comparison of microbially induced calcium carbonate precipitation eligibility using sporosarcina pasteurii and bacillus licheniformis on two different sands**
Sarçiçek Y. E. , Gurbanov R., Pekcan O., Gözen A. G.
GEOMICROBIOLOGY JOURNAL, vol.36, pp.42-52, 2019 (Journal Indexed in SCI)
- **An automated approach for the design of Mechanically Stabilized Earth Walls incorporating metaheuristic optimization algorithms**
YALÇIN Y., Orhon M., PEKCAN O.
APPLIED SOFT COMPUTING, vol.74, pp.547-566, 2019 (Journal Indexed in SCI)
- **A modified approach to cross entropy method: Elitist stepped distribution algorithm**
ALTUN M., PEKCAN O.
APPLIED SOFT COMPUTING, vol.58, pp.756-769, 2017 (Journal Indexed in SCI)
- **A regional near-surface high frequency spectral attenuation (κ) model for northwestern Turkey**
Askan A., Sisman F. N. , Pekcan O.
SOIL DYNAMICS AND EARTHQUAKE ENGINEERING, vol.65, pp.113-125, 2014 (Journal Indexed in SCI)
- **A bat-inspired algorithm for structural optimization**
HASANÇEBİ O., TEKE T., PEKCAN O.
COMPUTERS & STRUCTURES, vol.128, pp.77-90, 2013 (Journal Indexed in SCI)
- **Undrained cyclic shear and deformation behavior of silt-clay mixtures of Adapazan, Turkey**
Yılmaz M., Pekcan O., Bakir B.
SOIL DYNAMICS AND EARTHQUAKE ENGINEERING, vol.24, pp.497-507, 2004 (Journal Indexed in SCI)

Articles Published in Other Journals

- **Lean Project Management using Unmanned Aerial Vehicles**
Ersöz A. B. , Pekcan O., Tokdemir O. B.
Tamap Journal of Engineering, vol.2018, no.65, 2019 (Refereed Journals of Other Institutions)

Refereed Congress / Symposium Publications in Proceedings

- **Lean Project Management using Unmanned Aerial Vehicles**
 ERSÖZ A. B. , PEKCAN O., TOKDEMİR O. B.
 5th International Project and Construction Management Conference (IPCMC2018), 16 - 18 November 2018
- **Analysis of Slopes Using Elitist Differential Evolution Algorithm**
 YALÇIN Y., ALTUN M., PEKCAN O.
 6th International Conference on Engineering Optimization, Lizbon, Portugal, 17 - 19 September 2018
- **Application of Artificial Neural Networks on Building Energy Estimation**
 ALTUN M., ERSÖZ A. B. , TEKE T., KURT T., AKÇAMETE GÜNGÖR A., PEKCAN O.
 International Conference on Engineering Technologies, Konya, Turkey, 7 - 09 December 2017
- **Crack identification for rigid pavements using unmanned aerial vehicles**
 ERSÖZ A. B. , PEKCAN O., TEKE T.
 International Conference on Building up Efficient and Sustainable Transport Infrastructure (BESTInfra), Prague, Czech Republic, 21 - 22 September 2017, vol.236
- **Unmanned Aerial Vehicle Based Pavement Crack Identification Method Integrated with Geographic Information Systems**
 ERSÖZ A. B. , PEKCAN O., TEKE T.
 Transportation Research Board 96th Annual Meeting, Washington, Kiribati, 8 - 12 January 2017
- **Damage identification of coastal structures using image processing techniques**
 PEKCAN O., ERSÖZ A. B. , TEKE T., DOĞAN G. G. , ÖZYURT G., BAYKAL C.
 35th International Conference on Coastal Engineering, Antalya, Turkey, 17 - 20 November 2016
- **Damage Identification of Coastal Structures Using Image Processing Techniques**
 PEKCAN O., ERSÖZ A. B. , TEKE T., DOĞAN G. G. , ÖZYURT G., BAYKAL C.
 35TH INTERNATIONAL CONFERENCE ON COASTAL ENGINEERING, 17 - 20 November 2016
- **Pavement Crack Detection Using Unmanned Air Vehicles**
 PEKCAN O., ERSÖZ A. B. , TEKE T.
 Transportation Research Board 95th Annual Meeting, 10 - 14 January 2016
- **Development of soil profile visualization software using game engines**
 Cicekci O. C. , Turkeri M. K. , PEKCAN O.
 2014 Congress on Geo-Characterization and Modeling for Sustainability, Geo-Congress 2014, Atlanta, GA, United States Of America, 23 - 26 February 2014, pp.3364-3372
- **Soft computing methodology to determine pavement thickness from falling weight deflectometer testing**
 Pekcan O., Tutumluer E., Ghaboussi J.
 GeoFlorida 2010: Advances in Analysis, Modeling and Design Conference, West Palm Beach, FL, United States Of America, 20 - 24 February 2010, pp.2621-2630
- **SOFTSYS for backcalculation of full-depth asphalt pavement layer moduli**
 Pekcan O., Tutumluer E., Ghaboussi J.
 8th International Conference on the Bearing Capacity of Roads, Railways and Airfields, BCR2A'09, Champaign, IL, United States Of America, 29 June - 02 July 2009, vol.1, pp.679-687
- **Quantifying effects of lime stabilized subgrade on conventional flexible pavement responses**
 Pekcan O., Tutumluer E., Thompson M.
 1st International Conference on Transportation Geotechnics, ICTG-1, Nottingham, United Kingdom, 25 - 27 August 2008, pp.529-534
- **Artificial Neural Network based backcalculation of conventional flexible pavements on lime stabilized soils**
 Pekcan O., Tutumluer E., Thompson M.
 12th International Conference on Computer Methods and Advances in Geomechanics 2008, Goa, India, 1 - 06 October 2008, vol.3, pp.1647-1654
- **Analyzing pavements on lime-stabilized soils with artificial neural networks**
 Pekcan O., Tutumluer E., Thompson M.
 International Conference on Advanced Characterisation of Pavement and Soil Engineering Materials, Athens, Greece, 20 - 22 June 2007, vol.1, pp.587-596
- **Nondestructive flexible pavement evaluation using ILLI-PAVE based artificial neural network models**
 Pekcan O., Tutumluer E., Thompson M.

Supported Projects

- PEKCAN O., Project Supported by Higher Education Institutions, Üst Yapı Malzeme Özelliklerinin Paralel Bilgisayarlar Aracılığı İle Geri Hesaplanması, 2011 - Continues
- PEKCAN O., TUNALI M., YALÇIN Y., GÖZEN A. G. , Project Supported by Higher Education Institutions, ÜREOLİTİK BAKTERİLER KULLANILARAK İYLEŞTİRİLEN KUMLU ZEMİNLERİN MÜHENDİSLİK ÖZELLİKLERİNİN İNCELENMESİ, 2017 - 2019
- PEKCAN O., Project Supported by Higher Education Institutions, TSE STANDARTLARI KULLANILARAK GENETİK ALGORİTMALARLA İSTİNAT DUVARI TASARIMI, 2017 - 2017
- PEKCAN O., Project Supported by Higher Education Institutions, ZEMİNLERİN DEFORMASYON ÖZELLİKLERİNİN BİYO-İYLEŞTİRME METODLARI KULLANILARAK İYLEŞTİRİLMESİ, 2017 - 2017
- PEKCAN O., Project Supported by Higher Education Institutions, ŞEV STABİLİTE ANALİZLERİNİN OPTİMİZASYON TEKNİKLERİ KULLANILARAK DEĞERLENDİRİLMESİ, 2017 - 2017
- PEKCAN O., Project Supported by Higher Education Institutions, OYUN MOTORLARI KULLANILARAK GEOGRİD-AGREGA KENETLENME MEKANİZMASININ İNCELENMESİ, 2017 - 2017
- PEKCAN O., Project Supported by Higher Education Institutions, İNSANSIZ HAVA ARAÇLARI KULLANILARAK YOL ÜST YAPISI ÇATLAK TESPİTİ, 2017 - 2017
- PEKCAN O., Project Supported by Higher Education Institutions, ZEMİNLERİN ŞİŞME ÖZELLİKLERİNİN MİKROBİYAL ETKİLERE BAĞLI KALSİT ÇÖKELMESİ SONUCU İYLEŞTİRİLMESİ, 2017 - 2017
- PEKCAN O., DEMİR B., Project Supported by Higher Education Institutions, KAZIKLI TEMELLERİN OPTİMUM TOPOLOJİK YERLEŞİMİ İÇİN HIZLI HESAPLAMA YÖNTEMLERİ GELİŞTİRİLMESİ, 2016 - 2016
- PEKCAN O., Gedik G., SARIÇİÇEK Y. E. , YALÇIN Y., Project Supported by Higher Education Institutions, BİYOLOJİK YÖNTEMLER KULLANILARAK İYLEŞTİRİLEN ZEMİNLERİN MUKAVEMET DAVRANIŞININ İNCELENMESİ, 2014 - 2016

Citations

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