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Education Information

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Jeoloji Mühendisliği Anabilim Dalı, Turkey 2003 - 2008

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Jeoloji Mühendisliği Anabilim Dalı, Turkey 2000 - 2003

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Jeoloji Mühendisliği Bölümü, Turkey 1994 - 2000

Undergraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Jeoloji Mühendisliği Anabilim Dalı, Turkey 1994 - 2000

Foreign Languages

English, B2 Upper Intermediate

Research Areas

Geological Engineering, Applied Geology, Engineering Geology foundations, earthquakes, dams, reservoirs, Engineering and Technology

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Modeling Shallow Landslide Runout Distance in Eocene Flysch Facies Using Empirical–Statistical Models (Western Black Sea Region of Türkiye)**
Komu M. P., Nefeslioglu H. A., GÖKÇEÖĞLU C.
ISPRS International Journal of Geo-Information, vol.13, no.3, 2024 (SCI-Expanded)
- II. **Derivation of earthquake-induced landslide distribution using aerial photogrammetry: the January 24, 2020, Elazig (Turkey) earthquake**
KARAKAŞ G., NEFESLİOĞLU H. A., KOCAMAN GÖKÇEÖĞLU S., Buyukdemircioglu M., Yurur T., GÖKÇEÖĞLU C.
LANDSLIDES, vol.18, no.6, pp.2193-2209, 2021 (SCI-Expanded)
- III. **Infinite slope stability model and steady-state hydrology-based shallow landslide susceptibility evaluations: The Guneysu catchment area (Rize, Turkey)**
Keles F., NEFESLİOĞLU H. A.
CATENA, vol.200, 2021 (SCI-Expanded)
- IV. **Use of multisensor and multitemporal geospatial datasets to extract the foundation characteristics of a large building: a case study**
GÖKÇEÖĞLU C., KOCAMAN GÖKÇEÖĞLU S., NEFESLİOĞLU H. A., OK A. Ö.
BULLETIN OF ENGINEERING GEOLOGY AND THE ENVIRONMENT, vol.80, no.4, pp.3251-3269, 2021 (SCI-

- Expanded)
- V. **Integration of an InSAR and ANN for Sinkhole Susceptibility Mapping: A Case Study from Kirikkale-Delice (Turkey)**
 NEFESLİOĞLU H. A., TAVUS B., Er M., Ertugrul G., Ozdemir A., Kaya A., KOCAMAN GÖKÇEOĞLU S.
ISPRS INTERNATIONAL JOURNAL OF GEO-INFORMATION, vol.10, no.3, 2021 (SCI-Expanded)
- VI. **The use of landslide hazard maps to determine mitigation priorities in a dam reservoir and its protection area**
 NEFESLİOĞLU H. A., Görüm T.
LAND USE POLICY, vol.91, 2020 (SSCI)
- VII. **On the use of hierarchical fuzzy inference systems (HFIS) in expert-based landslide susceptibility mapping: the central part of the Rif Mountains (Morocco)**
 Ozer B. C., Mutlu B., NEFESLİOĞLU H. A., SEZER E., Rouai M., Dekayir A., GÖKÇEOĞLU C.
BULLETIN OF ENGINEERING GEOLOGY AND THE ENVIRONMENT, vol.79, no.1, pp.551-568, 2020 (SCI-Expanded)
- VIII. **An Experimental Research on the Use of Recurrent Neural Networks in Landslide Susceptibility Mapping**
 MUTLU B., NEFESLİOĞLU H. A., SEZER E., AKCAYOL M. A., GÖKÇEOĞLU C.
ISPRS INTERNATIONAL JOURNAL OF GEO-INFORMATION, vol.8, no.12, 2019 (SCI-Expanded)
- IX. **Landslide susceptibility mapping of the Mediterranean coastal zone of Morocco between Oued Laou and El Jebha using artificial neural networks (ANN)**
 Harmouzi H., NEFESLİOĞLU H. A., Rouai M., Sezer E. A., Dekayir A., GÖKÇEOĞLU C.
ARABIAN JOURNAL OF GEOSCIENCES, vol.12, no.22, 2019 (SCI-Expanded)
- X. **Mapping of shallow landslides with object-based image analysis from unmanned aerial vehicle data**
 Comert R., Avdan U., Görüm T., NEFESLİOĞLU H. A.
ENGINEERING GEOLOGY, vol.260, 2019 (SCI-Expanded)
- XI. **A Novel Performance Assessment Approach Using Photogrammetric Techniques for Landslide Susceptibility Mapping with Logistic Regression, ANN and Random Forest**
 Sevgen E., Kocaman S., NEFESLİOĞLU H. A., GÖKÇEOĞLU C.
SENSORS, vol.19, no.18, 2019 (SCI-Expanded)
- XII. **A defuzzification-free hierarchical fuzzy system (DF-HFS): Rock mass rating prediction**
 Mutlu B., SEZER E., Nefeslioglu H. A.
FUZZY SETS AND SYSTEMS, vol.307, pp.50-66, 2017 (SCI-Expanded)
- XIII. **An expert-based landslide susceptibility mapping (LSM) module developed for Netcad Architect Software**
 SEZER E., Nefeslioglu H. A., Osna T.
COMPUTERS & GEOSCIENCES, vol.98, pp.26-37, 2017 (SCI-Expanded)
- XIV. **A fuzzy classification routine for fine-grained soils**
 TOKSÖZ D., YILMAZ I., Nefeslioglu H. A., Marschalko M.
QUARTERLY JOURNAL OF ENGINEERING GEOLOGY AND HYDROGEOLOGY, vol.49, no.4, pp.344-349, 2016 (SCI-Expanded)
- XV. **Safety assessment of limestone-based engineering structures to be partially flooded by dam water: A case study from northeastern Turkey**
 GÖKÇEOĞLU C., TÜRER A., Nefeslioglu H. A., TÜRER D., Meral C.
ENGINEERING GEOLOGY, vol.209, pp.44-55, 2016 (SCI-Expanded)
- XVI. **Modification of seed cell sampling strategy for landslide susceptibility mapping: an application from the Eastern part of the Gallipoli Peninsula (Canakkale, Turkey)**
 DAĞDELENLER G., NEFESLİOĞLU H. A., GÖKÇEOĞLU C.
BULLETIN OF ENGINEERING GEOLOGY AND THE ENVIRONMENT, vol.75, no.2, pp.575-590, 2016 (SCI-Expanded)
- XVII. **Determination of coastal border line: an integrated approach for a part of Antalya coast (Turkey)**
 GÖKÇEOĞLU C., NEFESLİOĞLU H. A., TÜRER D., AKGÜN A., AYAŞ Z., Temimhan M.
ARABIAN JOURNAL OF GEOSCIENCES, vol.8, no.2, pp.1145-1154, 2015 (SCI-Expanded)
- XVIII. **An assessment on producing synthetic samples by fuzzy C-means for limited number of data in**

prediction models

SEZER E., NEFESLİOĞLU H. A., GÖKÇEÖĞLU C.

APPLIED SOFT COMPUTING, vol.24, pp.126-134, 2014 (SCI-Expanded)

- XIX. **A. Blais-Stevens, P. Behnia, M. Kremer, A. Page, R. Kung, G. Bonham-Carter: Comments on Landslide susceptibility mapping of the Sea to Sky transportation corridor, British Columbia, Canada: comparison of two methods, Bulletin of Engineering Geology and the Environment, 2012, 71(3):447-466. doi:10.1007/s10064-012-0421-z**
YILMAZ I., Nefeslioglu H. A., Marschalko M., Bednarik M.
BULLETIN OF ENGINEERING GEOLGY AND THE ENVIRONMENT, vol.72, pp.625-627, 2013 (SCI-Expanded)
- XX. **A modified analytical hierarchy process (M-AHP) approach for decision support systems in natural hazard assessments**
Nefeslioglu H. A., SEZER E., GÖKÇEÖĞLU C., AYAŞ Z.
COMPUTERS & GEOSCIENCES, vol.59, pp.1-8, 2013 (SCI-Expanded)
- XXI. **Influence of seismic acceleration on landslide susceptibility maps: a case study from NE Turkey (the Kelkit Valley)**
Das H. O., SÖNMEZ H., GÖKÇEÖĞLU C., Nefeslioglu H. A.
LANDSLIDES, vol.10, no.4, pp.433-454, 2013 (SCI-Expanded)
- XXII. **Evaluation of geo-mechanical properties of very weak and weak rock materials by using non-destructive techniques: Ultrasonic pulse velocity measurements and reflectance spectroscopy**
Nefeslioglu H. A.
ENGINEERING GEOLOGY, vol.160, pp.8-20, 2013 (SCI-Expanded)
- XXIII. **An assessment on the use of Terra ASTER L3A data in landslide susceptibility mapping**
Nefeslioglu H. A., San B. T., GÖKÇEÖĞLU C., Duman T. Y.
INTERNATIONAL JOURNAL OF APPLIED EARTH OBSERVATION AND GEOINFORMATION, vol.14, no.1, pp.40-60, 2012 (SCI-Expanded)
- XXIV. **An easy-to-use MATLAB program (MamLand) for the assessment of landslide susceptibility using a Mamdani fuzzy algorithm**
Akgun A., SEZER E., Nefeslioglu H. A., GÖKÇEÖĞLU C., Pradhan B.
COMPUTERS & GEOSCIENCES, vol.38, no.1, pp.23-34, 2012 (SCI-Expanded)
- XXV. **Medium-scale hazard mapping for shallow landslide initiation: the Buyukkoy catchment area (Cayeli, Rize, Turkey)**
Nefeslioglu H. A., GÖKÇEÖĞLU C., SÖNMEZ H., Gorum T.
LANDSLIDES, vol.8, no.4, pp.459-483, 2011 (SCI-Expanded)
- XXVI. **Landform effect on rockfall and hazard mapping in Cappadocia (Turkey)**
Zorlu K., TUNUSLUOĞLU M. C., Gorum T., Nefeslioglu H. A., Yalcin A., TÜRER D., GÖKÇEÖĞLU C.
ENVIRONMENTAL EARTH SCIENCES, vol.62, no.8, pp.1685-1693, 2011 (SCI-Expanded)
- XXVII. **Probabilistic Risk Assessment in Medium Scale for Rainfall-Induced Earthflows: Catakli Catchment Area (Cayeli, Rize, Turkey)**
Nefeslioglu H. A., GÖKÇEÖĞLU C.
MATHEMATICAL PROBLEMS IN ENGINEERING, 2011 (SCI-Expanded)
- XXVIII. **Assessment of Landslide Susceptibility by Decision Trees in the Metropolitan Area of Istanbul, Turkey**
Nefeslioglu H. A., SEZER E., GÖKÇEÖĞLU C., BOZKIR A. S., Duman T. Y.
MATHEMATICAL PROBLEMS IN ENGINEERING, 2010 (SCI-Expanded)
- XXIX. **A comparative study on indirect determination of degree of weathering of granites from some physical and strength parameters by two soft computing techniques**
GÖKÇEÖĞLU C., Zorlu K., Ceryan S., Nefeslioglu H. A.
MATERIALS CHARACTERIZATION, vol.60, no.11, pp.1317-1327, 2009 (SCI-Expanded)
- XXX. **Assessment of geo-environmental problems of the Zonguldak province (NW Turkey)**
TÜRER D., Nefeslioglu H. A., Zorlu K., GÖKÇEÖĞLU C.
ENVIRONMENTAL GEOLOGY, vol.55, no.5, pp.1001-1014, 2008 (SCI-Expanded)

- XXXI. **Implementation of reconstructed geomorphologic units in landslide susceptibility mapping: the Melen Gorge (NW Turkey)**
 Gorum T., Gonencgil B., GÖKÇEOĞLU C., Nefeslioglu H. A.
NATURAL HAZARDS, vol.46, no.3, pp.323-351, 2008 (SCI-Expanded)
- XXXII. **An assessment on the use of logistic regression and artificial neural networks with different sampling strategies for the preparation of landslide susceptibility maps**
 Nefeslioglu H. A., GÖKÇEOĞLU C., SÖNMEZ H.
ENGINEERING GEOLOGY, vol.97, pp.171-191, 2008 (SCI-Expanded)
- XXXIII. **Extraction of potential debris source areas by logistic regression technique: a case study from Barla, Besparmak and Kapi mountains (NW Taurids, Turkey)**
 Tunusluoglu M. C., GÖKÇEOĞLU C., Nefeslioglu H. A., Sonmez H.
ENVIRONMENTAL GEOLOGY, vol.54, no.1, pp.9-22, 2008 (SCI-Expanded)
- XXXIV. **Landslide susceptibility mapping for a part of tectonic Kelkit Valley (Eastern Black Sea region of Turkey)**
 Nefeslioglu H. A., Duman T. Y., Durmaz S.
GEOMORPHOLOGY, vol.94, pp.401-418, 2008 (SCI-Expanded)
- XXXV. **Prediction of uniaxial compressive strength of sandstones using petrography-based models**
 Zorlu K., GÖKÇEOĞLU C., Ocakoglu F., NEFESLİOĞLU H. A., Acikalin S.
ENGINEERING GEOLOGY, vol.96, pp.141-158, 2008 (SCI-Expanded)
- XXXVI. **Back-analysis of the source of the 1956 Eskisehir Earthquake using attenuation equation and damage data**
 Ocakoglu F., Acikalin S., Gokceoglu C., Nefeslioglu H. A., Sonmez H.
BULLETIN OF ENGINEERING GEOLOGY AND THE ENVIRONMENT, vol.66, no.3, pp.353-360, 2007 (SCI-Expanded)
- XXXVII. **An artificial neural network application to produce debris source areas of Barla, Besparmak, and Kapi Mountains (NW Taurids, Turkey)**
 Tunusluoglu M. C., Gokceoglu C., Sonmez H., Nefeslioglu H. A.
NATURAL HAZARDS AND EARTH SYSTEM SCIENCES, vol.7, no.5, pp.557-570, 2007 (SCI-Expanded)
- XXXVIII. **Application of logistic regression for landslide susceptibility zoning of Cekmece Area, Istanbul, Turkey**
 Duman T. Y., Can T., Gokceoglu C., Nefeslioglu H. A., Sonmez H.
ENVIRONMENTAL GEOLOGY, vol.51, no.2, pp.241-256, 2006 (SCI-Expanded)
- XXXIX. **Indirect determination of weighted joint density (wJd) by empirical and fuzzy models: Supren (Eskisehir, Turkey) marbles**
 Nefeslioglu H. A., Gokceoglu C., SONMEZ H.
ENGINEERING GEOLOGY, vol.85, pp.251-269, 2006 (SCI-Expanded)
- XL. **Estimating the uniaxial compressive strength of a volcanic bimrock**
 SONMEZ H., GOKCEOGLU C., MEDLEY E., Tuncay E., NEFESLİOĞLU H. A.
INTERNATIONAL JOURNAL OF ROCK MECHANICS AND MINING SCIENCES, vol.43, no.4, pp.554-561, 2006 (SCI-Expanded)
- XLI. **Estimation of rock modulus: For intact rocks with an artificial neural network and for rock masses with a new empirical equation**
 Sonmez H., Gokceoglu C., Nefeslioglu H. A., Kayabasi A.
INTERNATIONAL JOURNAL OF ROCK MECHANICS AND MINING SCIENCES, vol.43, no.2, pp.224-235, 2006 (SCI-Expanded)
- XLII. **Susceptibility assessments of shallow earthflows triggered by heavy rainfall at three catchments by logistic regression analyses**
 Can T., Nefeslioglu H. A., Gokceoglu C., Sonmez H., Duman T.
GEOMORPHOLOGY, vol.72, pp.250-271, 2005 (SCI-Expanded)
- XLIII. **The 17 March 2005 Kuzulu landslide (Sivas, Turkey) and landslide-susceptibility map of its near vicinity**
 Gokceoglu C., Sonmez H., Nefeslioglu H. A., Duman T., Can T.

- ENGINEERING GEOLOGY, vol.81, no.1, pp.65-83, 2005 (SCI-Expanded)
- XLIV. Determination of wJd on rock exposures including wide spaced joints**
 Sonmez H., Nefeslioglu H. A., Gokceoglu C.
 ROCK MECHANICS AND ROCK ENGINEERING, vol.37, no.5, pp.403-413, 2004 (SCI-Expanded)
- XLV. An approach to determine the weathering characteristics of discontinuities**
 Nefeslioglu H. A., Gokceoglu C., Sonmez H.
 INTERNATIONAL JOURNAL OF ROCK MECHANICS AND MINING SCIENCES, vol.41, no.3, pp.387-388, 2004 (SCI-Expanded)
- XLVI. A Mamdani model to predict the weighted joint density**
 NEFESLİOĞLU H. A., Gokceoglu C., SONMEZ H.
 KNOWLEDGE-BASED INTELLIGENT INFORMATION AND ENGINEERING SYSTEMS, PT 1, PROCEEDINGS, vol.2773, pp.1052-1057, 2003 (SCI-Expanded)

Articles Published in Other Journals

- I. Değiştirilmiş AHP (M-AHP) Yöntemi Kullanılarak Ankara İçin Taşkın Duyarlılık Haritası Üretimi
 sózer b., KOCAMAN S., NEFESLİOĞLU H. A., Fırat O., GÖKÇEOĞLU C.
 Harita Dergisi, no.162, pp.12-24, 2019 (Peer-Reviewed Journal)
- II. Çok Zamanlı Heyelan Aktivitesinin Belirlenmesinde Jeomorfolojik Bir Yaklaşım
 GÖRÜM T., NEFESLİOĞLU H. A.
 TÜRK COĞRAFYA DERGİSİ, vol.0, no.65, pp.47-58, 2015 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. Flood Mapping Using Sentinel-1 SAR Data: A Case Study of Ordu 8 August 2018 Flood
 TAVUS B., KOCAMAN S., NEFESLİOĞLU H. A., GÖKÇEOĞLU C.
 TU FUAB 2019, 25 - 27 April 2019
- II. CONSIDERATIONS ON THE USE OF SENTINEL-1 DATA IN FLOOD MAPPING IN URBAN AREAS: ANKARA (TURKEY) 2018 FLOODS
 TAVUS B., KOCAMAN S., GÖKÇEOĞLU C., NEFESLİOĞLU H. A.
 ISPRS TCV Symposium, 20 - 23 November 2018, vol.5, pp.575-581
- III. PRELIMINARY INVESTIGATIONS ON FLOOD SUSCEPTIBILITY MAPPING IN ANKARA (TURKEY) USING MODIFIED ANALYTICAL HIERARCHY PROCESS (M-AHP)
 sózer b., KOCAMAN S., NEFESLİOĞLU H. A., firat o., GÖKÇEOĞLU C.
 ISPRS TCV Symposium, 20 - 23 November 2018, vol.5, pp.361-365
- IV. Expert-based landslide susceptibility modelling by using hierarchical fuzzy systems (HFS): an investigation from central part of Rif Mountains (Morocco)
 ÖZER B. C., MUTLU B., NEFESLİOĞLU H. A., SEZER E., ROUAI M., Dekayir A., GÖKÇEOĞLU C.
 European Geosciences Union General Assembly, Viyana, Austria, 4 - 13 April 2018
- V. A Comparative Assessment of SINMAP Mathematical Model and Artificial Neural Network Based Landslide Susceptibility Evaluations
 KELEŞ F., NEFESLİOĞLU H. A.
 INTERNATIONAL SYMPOSIUM ON GIS APPLICATIONS IN GEOGRAPHY GEOSCIENCES, 18 - 21 October 2017
- VI. EROSIONAL PROCESSES IN THE NALLIHAN (ANKARA) BADLAND AREA BASED ON ULTRA-HIGH RESOLUTION UNMANNED AERIAL VEHICLE (UAV) DTMS
 GÖRÜM T., AVDAN U., ÇÖMERT R., NEFESLİOĞLU H. A.
 INTERNATIONAL SYMPOSIUM ON GIS APPLICATIONS IN GEOGRAPHY GEOSCIENCES, Çanakkale, Turkey, 18 - 21 October 2017
- VII. Effect of Rule Evaluation in Hierarchical Systems A Benchmark on XOR Gate

- MUTLU B., SEZER E., NEFESLİOĞLU H. A.
The 4th International Fuzzy Systems Symposium, 5 - 06 November 2015, pp.58-62
- VIII. **Use of Fuzzy Approaches to Make Predictions on Small Sized Data**
ÖMERCİOĞLU A., SEZER E., YILMAZ Y., NEFESLİOĞLU H. A.
The 4th International Fuzzy Systems Symposium, 5 - 06 November 2015, pp.36-40
- IX. **Consequences of Structural Differences Between Hierarchical Systems While Fuzzy Inference**
Mutlu B., SEZER E., NEFESLİOĞLU H. A.
13th International Work-Conference on Artificial Neural Networks (IWANN), Palma de Mallorca, Spain, 10 - 12 June 2015, vol.9094, pp.549-560
- X. **A Decision Support System Suggestion for the Optimum Railway Route Selection**
GÖKÇEOĞLU C., NEFESLİOĞLU H. A., Tanyıldız N.
12th International IAEG Congress, Torino, Italy, 15 - 19 September 2014, pp.331-334
- XI. **Determination of the Shore Edge Line at Kundu (Antalya, Turkey)**
GÖKÇEOĞLU C., Nefeslioglu H. A., AKGÜN A., TÜRER D., Temimhan M.
10th International Conference on the Mediterranean Coastal Environment, Rhodes, Greece, 25 - 29 October 2011, pp.221-223
- XII. **Mechanism and activity of a complex landslide**
Kayabaşı A., SONMEZ H., GÖKÇEOĞLU C., Tonoz M. C., TUNCAY E., NEFESLİOĞLU H. A.
5th International Symposium on Eastern Mediterranean Geology, Selanik, Greece, 14 April 2004, vol.2, pp.715-718
- XIII. **A Mamdani model to predict the weighted joint density**
NEFESLİOĞLU H. A., GÖKÇEOĞLU C., SÖNMEZ H.
7th International Conference on Knowledge-Based Intelligent Information and Engineering Systems (KES 2003), 3 - 05 September 2003, vol.2773, pp.1052-1057
- XIV. **Change detection of structures in the earthquake hazard zoning map of Eskisehir city, Turkey, by using satellite images**
Nefeslioglu H. A., Tun M., Ayday C., Goktan R.
2nd GRS/ISPRS Joint Workshop on Remote Sensing and Data Fusion over Urban Areas, Berlin, Germany, 22 - 23 May 2003, pp.177-181

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