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Education Information

Doctorate, Istanbul Technical University, Maden Fakültesi, Maden Mühendisliği Bölümü, Turkey 2004 - 2010

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Maden Kazı Ve Mekanizasyonu (YI) (Tezli), Turkey 2001 - 2004

Undergraduate, Istanbul Technical University, Maden Fakültesi, Maden Mühendisliği Bölümü, Turkey 1996 - 2001

Foreign Languages

English, C2 Mastery

Dissertations

Doctorate, Değişik kayaç ve disk keskinin kayaç kazılabilirliği üzerine etkisinin araştırılması, İstanbul Teknik Üniversitesi, Maden Fakültesi, Maden Mühendisliği Bölümü, 2010

Postgraduate, Küçüksu tünellerinde kollu galeri açma makinesinin performans tahminin araştırılması, İstanbul Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Maden Kazı Ve Mekanizasyonu (YI) (Tezli), 2004

Research Areas

Technical Sciences, Mining Engineering and Technology, Mining Operations, Rock Mechanics, Excavation Techniques, Marble Management and Processing

Academic Titles / Tasks

Professor, Istanbul Technical University, Maden, Maden Mühendisliği, 2019 - Continues

Associate Professor, Istanbul Technical University, Maden, Maden Mühendisliği, 2014 - 2019

Assistant Professor, Istanbul Technical University, Maden, Maden Mühendisliği, 2012 - 2013

Research Assistant, Istanbul Technical University, Maden, Maden Mühendisliği, 2002 - 2011

Academic and Administrative Experience

Fakülte Yönetim Kurulu Üyesi, Istanbul Technical University, Maden, Maden Mühendisliği, 2020 - 2022

Deputy Head of Department, Istanbul Technical University, Maden, Maden Mühendisliği, 2015 - 2020

Advising Theses

Tumaç D., DOĞAL TAŞ FABRİKALARINDA KULLANILAN DAİRESEL TESTERELİ BLOK KESME (S/T) MAKİNELERİ İÇİN PERFORMANS TAHMİN MODELLERİNİN GELİŞTİRİLMESİ, Postgraduate, A.GÜMÜŞ(Student), 2022

Tumaç D., Soil conditioning effect on EPB-TBM performance for Dudullu-Bostancı Metro Line project, Postgraduate, M.SEYEDREZAEI(Student), 2019

Tumaç D., Evaluation of machine utilization time and performance of EPB TBMs used in Atakoy -İkitelli metro tunnel project, Postgraduate, O.İNAL(Student), 2018

Tumaç D., Doğal taş fabrikalarında kullanılan dairesel testereli blok kesme (S/T) makineleri için performans tahmin modelinin geliştirilmesi, Postgraduate, K.CENGİZ(Student), 2016

Tumaç D., Suggestion of performance prediction models for impact hammer used in Levent-Hisarüstü metro tunnel, Postgraduate, S.HOJJATI(Student), 2015

Tumaç D., Estimation of optimum borehole points using software solutions, Postgraduate, F.NAHMATOV(Student), 2015

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Suggestion of new models for predicting performance of raise boring machines based on indentation tests**
Shaterpour-Mamaghani A., Çopur H., Balcı C., Tumaç D., Kocbay A., Dogan E., Altintas E., Erdogan T., Sirin O., Gümüş A.
Tunnelling and Underground Space Technology, vol.138, 2023 (SCI-Expanded)
- II. **Full-Scale linear cutting tests using a button cutter and deterministic performance prediction modeling for raise boring machines**
Shaterpour Mamaghani A., Çopur H., Gümüş A., Tumaç D., Balcı C., Erdogan T., Dogan E., Kocbay A.
TUNNELLING AND UNDERGROUND SPACE TECHNOLOGY, vol.127, 2022 (SCI-Expanded)
- III. **Accurate performance prediction model for impact hammer developed using customized evolutionary algorithm**
Hojjati S., Tumaç D., Jeon S.
TUNNELLING AND UNDERGROUND SPACE TECHNOLOGY, vol.109, 2021 (SCI-Expanded)
- IV. **Experimental studies using a new portable linear rock cutting machine and verification for disc cutters**
Comakli R., Balcı C., Çopur H., Tumaç D.
TUNNELLING AND UNDERGROUND SPACE TECHNOLOGY, vol.108, 2021 (SCI-Expanded)
- V. **Possibility of using torvane shear testing device for soil conditioning optimization**
Avunduk E., Copur H., Tolouei S., Tumaç D., Balcı C., Bilgin N., Shaterpour-Mamaghani A.
TUNNELLING AND UNDERGROUND SPACE TECHNOLOGY, vol.107, 2021 (SCI-Expanded)
- VI. **Investigation into the Effects of Textural Properties on Cuttability Performance of a Chisel Tool**
Tumaç D., Çopur H., Balcı C., Er S., Avunduk E.
ROCK MECHANICS AND ROCK ENGINEERING, vol.51, no.4, pp.1227-1248, 2018 (SCI-Expanded)
- VII. **Estimating the sawability of large diameter circular saws based on classification of natural stone types according to the geological origin**
Tumaç D., Shaterpour-Mamaghani A.
INTERNATIONAL JOURNAL OF ROCK MECHANICS AND MINING SCIENCES, vol.101, pp.18-32, 2018 (SCI-Expanded)
- VIII. **Effects of Different Cutting Patterns and Experimental Conditions on the Performance of a Conical Drag Tool**
Çopur H., BILGIN N., Balcı C., Tumaç D., Avunduk E.

ROCK MECHANICS AND ROCK ENGINEERING, vol.50, no.6, pp.1585-1609, 2017 (SCI-Expanded)

- IX. **Predicting performance of impact hammers from rock quality designation and compressive strength properties in various rock masses**
Tumaç D., HOJJATI S.
TUNNELLING AND UNDERGROUND SPACE TECHNOLOGY, vol.59, pp.38-47, 2016 (SCI-Expanded)
- X. **Estimating specific energy from the brittleness indexes in cutting metallic ores**
Comakli R., KAHRAMAN S., Balcı C., Tumaç D.
JOURNAL OF THE SOUTHERN AFRICAN INSTITUTE OF MINING AND METALLURGY, vol.116, no.8, pp.761-766, 2016 (SCI-Expanded)
- XI. **Artificial neural network application to predict the sawability performance of large diameter circular saws**
Tumaç D.
MEASUREMENT, vol.80, pp.12-20, 2016 (SCI-Expanded)
- XII. **Double shield TBM performance analysis in difficult ground conditions: a case study in the Gere de water tunnel, Turkey**
Shaterpour-Mamaghani A., Tumaç D., AVUNDUK E.
BULLETIN OF ENGINEERING GEOLOGY AND THE ENVIRONMENT, vol.75, no.1, pp.251-262, 2016 (SCI-Expanded)
- XIII. **Rock cuttability assessment using the concept of hybrid dynamic hardness (HDH)**
Yilmaz N. G., Tumaç D., Goktan R. M.
BULLETIN OF ENGINEERING GEOLOGY AND THE ENVIRONMENT, vol.74, no.4, pp.1363-1374, 2015 (SCI-Expanded)
- XIV. **Predicting the performance of large diameter circular saws based on Schmidt hammer and other properties for some Turkish carbonate rocks**
Tumac D.
INTERNATIONAL JOURNAL OF ROCK MECHANICS AND MINING SCIENCES, vol.75, pp.159-168, 2015 (SCI-Expanded)
- XV. **Investigations into the cutting characteristics of CCS type disc cutters and the comparison between experimental, theoretical and empirical force estimations**
Tumaç D., Balcı C.
TUNNELLING AND UNDERGROUND SPACE TECHNOLOGY, vol.45, pp.84-98, 2015 (SCI-Expanded)
- XVI. **Cuttability of coal from the Soma coalfield in Turkey**
BILGIN N., Balcı C., Çopur H., Tumaç D., Avunduk E.
International Journal of Rock Mechanics and Mining Sciences, vol.73, pp.123-129, 2015 (SCI-Expanded)
- XVII. **Prediction of roadheader performance by artificial neural network**
Avunduk E., Tumaç D., ATALAY A. K.
TUNNELLING AND UNDERGROUND SPACE TECHNOLOGY, vol.44, pp.3-9, 2014 (SCI-Expanded)
- XVIII. **Predicting performance of EPB TBMs by using a stochastic model implemented into a deterministic model**
Çopur H., Aydın H., BILGIN N., BALCI C., TUMAC D., DAYANC C.
TUNNELLING AND UNDERGROUND SPACE TECHNOLOGY, vol.42, pp.1-14, 2014 (SCI-Expanded)
- XIX. **Predicting the Performance of Chain Saw Machines Based on Shore Scleroscope Hardness**
Tumac D.
ROCK MECHANICS AND ROCK ENGINEERING, vol.47, no.2, pp.703-715, 2014 (SCI-Expanded)
- XX. **Investigation into the effects of different rocks on rock cuttability by a V-type disc cutter**
Balcı C., Tumaç D.
TUNNELLING AND UNDERGROUND SPACE TECHNOLOGY, vol.30, pp.183-193, 2012 (SCI-Expanded)
- XXI. **Field and laboratory studies on natural stones leading to empirical performance prediction of chain saw machines**
Çopur H., BALCI C., TUMAC D., BILGIN N.
INTERNATIONAL JOURNAL OF ROCK MECHANICS AND MINING SCIENCES, vol.48, no.2, pp.269-282, 2011 (SCI-Expanded)

XXII. Estimation of rock cuttability from shore hardness and compressive strength properties

Tumac D., BILGIN N., FERIDUNOGLU C., ERGIN H.

ROCK MECHANICS AND ROCK ENGINEERING, vol.40, no.5, pp.477-490, 2007 (SCI-Expanded)

Articles Published in Other Journals

- I. **Mermer Fabrikalarında Kullanılan Büyük Çaplı Dairesel Testerelerin (S/T) Performans Analizi**
Tumaç D., Tolouei S.
Gazi Üniversitesi Politeknik Dergisi, vol.4, pp.1-7, 2017 (Peer-Reviewed Journal)
- II. **The Performance Analysis of Large Diameter Circular Saws (S/T) used in Natural Stone Plants**
Tumaç D., Tolouei S.
JOURNAL OF POLYTECHNIC-POLITEKNIK DERGISI, vol.20, no.3, pp.651-662, 2017 (ESCI)
- III. **ÜSKÜDAR ÜMRANIYE ÇEKMEKÖY METRO TÜNELİNDE KULLANILAN PASA BASINÇLI TÜNEL AÇMA MAKİNESİNİN EPB TBM PERFORMANS ANALİZİ**
TUMAÇ D., GÜMÜŞ B. Ş.
Selcuk University Journal of Engineering ,Science and Technology, vol.3, no.1, pp.48-61, 2015 (Peer-Reviewed Journal)
- IV. **Değişik Kayaç ve Disk Keskilerin Kayaç Kazılabilirliği Üzerine Etkisi**
Tumaç D., Balci C.
itüdergisi/d, mühendislik sayısı, vol.1, pp.1-10, 2010 (Peer-Reviewed Journal)
- V. **Selection of roadheaders by fuzzy multiple attribute decision making method**
ACAROGLU Ö., FERIDUNOGLU C., Tumaç D.
Institution of Mining and Metallurgy. Transactions. Section A: Mining Technology, vol.115, no.3, pp.91-98, 2006 (Scopus)
- VI. **TBM cutting performance in Istanbul**
BILGIN N., FERIDUNOGLU C., Tumaç D., ÇINAR M., ÖZYOL L.
Tunnels and Tunnelling International, vol.38, no.2, pp.17-19, 2006 (Scopus)

Books & Book Chapters

- I. **Strength, Cuttability, and Workability of Coal**
BİLGİN N., ÇOPUR H., BALCI C., TUMAÇ D.
CRC Press Science Publishing - TaylorFrancis Group, 2019

Refereed Congress / Symposium Publications in Proceedings

- I. **Effect of cutting speed on conical pick cutter performance obtained from Portable Linear Rock Cutting Machine (PLCM)**
Balci C., Shoaee F., Tumaç D., Çopur H.
ITA-AITES World Tunnel Congress, ITA-AITES WTC 2023 and the 49th General Assembly of the International Tunnelling and Underground Association, 2023, Athens, Greece, 12 - 18 May 2023, pp.1157-1165
- II. **Correlation study between indentation indices and physical-mechanical properties of rocks**
Shaterpour-Mamaghani A., Çopur H., Balci C., Tumaç D., Erdogan T., Dogan E., Sirin O.
ITA-AITES World Tunnel Congress, ITA-AITES WTC 2023 and the 49th General Assembly of the International Tunnelling and Underground Association, 2023, Athens, Greece, 12 - 18 May 2023, pp.1445-1452
- III. **Experimental investigation of double scroll cutting pattern by using button cutting tool of raise boring machines**
Çopur H., Shaterpour-Mamaghani A., Gümüş A., Tumaç D., Balci C., Kocbay A., Erdogan T., Avunduk E.

EUROCK 2021 Conference on Rock Mechanics and Rock Engineering from Theory to Practice, Turin, Virtual, Italy, 20 - 25 September 2021, vol.833

- IV. **Lessons learnt from raise boring operation in the Efemcukuru Gold Mine, Turkey**
Shaterpour-Mamaghani A., Çopur H., Balci C., Tumaç D., Berber M., Altintas E., Erdogan T.
ISRM International Symposium - EUROCK 2020, Trondheim, Virtual, Norway, 14 - 19 June 2020
- V. **Relieved specific energy estimation using FLCM and PLCM linear rock cutting machines and comparison with rock properties**
BALCI C., ÇOPUR H., TUMAÇ D., ÇOMAKLI R.
World Tunnel Congress 2019, 3 - 09 May 2019
- VI. **Possibility of using vane shear testing device for optimizing soil conditioning**
ÇOPUR H., AVUNDUK E., Tolouei S., TUMAÇ D., BALCI C., BİLGİN N., SHATERPOUR MAMAGHANI A.
World Tunnel Congress, WTC 2019 and the 45th General Assembly of the International Tunnelling and Underground Space Association, ITA-AITES 2019, Naples, Italy, 3 - 09 May 2019, pp.1954-1963
- VII. **Determining the Effects of Physical, Mechanical and Textural Properties of Metamorphic Stones on a Chisel Tool Performance**
TUMAÇ D., ÇOPUR H., BALCI C., SHATERPOUR MAMAGHANI A., Er S., AVUNDUK E.
10th Asian Rock Mechanics Symposium The ISRM International Symposium for 2018, 29 October - 03 November 2018
- VIII. **Zorlu Zemin Şartlarında EPB TBM Tünelciliği: Ataköy – İkitelli Metro Tünelinde Örnek Bir Çalışma**
Yazıcı H. A., İlkdoğan T., Kuruyer V., Yavuz K., İçöz İ., Özkaya B., Çalışkan U. C., İnal O., Tumaç D.
4 th International Underground Excavations Symposium and Exhibitions, İstanbul, Turkey, 13 - 14 September 2018, pp.70-76
- IX. **EPB TBM Tunneling through Challenging Ground Conditions: A Case Study in the Ataköy-İkitelli Subway Tunnel, Turkey**
YAZICI A. H., İlkdoğan T., Kuruyer V., Yavuz K., İçöz İ., Özkaya B., ÇALIŞKAN U. C., İnal O., TUMAÇ D.
Proc. 4th International Underground Excavations Symposium, UYAK 2018, İstanbul, Turkey, 13 - 14 September 2018, pp.83-89
- X. **Unrelieved Spesific Energy Estimation fromPLCM and FLCM Linear Rock Cutting Tests andComparison with Rock Properties**
BALCI C., ÇOMAKLI R., BİLGİN N., ÇOPUR H., TUMAÇ D., AVUNDUK E.
ITA - AITES WORLD TUNNEL CONGRESS, 21 - 26 April 2018
- XI. **Effect of Soil Conditioning on Performance of an EPB TBM: from Laboratory to Mahmutbey-Mecidiyekoy Metro Tunnels in Turkey**
ÇOPUR H., AVUNDUK E., TUMAÇ D., BALCI C., BİLGİN N., SHATERPOUR MAMAGHANI A., TOLOUEI S., Erkuş G., Acun S., Ateş U.
World Tunnel Congress (WTC 2018), 21 - 26 April 2018
- XII. **Single Shield TBM Performance Analysis in Mixed Ground Conditions: A Case Study in the Dudullu-Bostanci Metro Tunnel, Turkey**
Seyedrrzaei M., Koç E., Tumaç D.
World Tunnel Congress (WTC 2018), Dubai, United Arab Emirates, 21 - 26 April 2018, vol.1, no.1, pp.1-5
- XIII. **Determining the effects of physical, mechanical and textural properties of metamorphic stones on a chisel tool performance**
Tumaç D., Çopur H., Balci C., Shaterpour-Mamaghani A., Er S., Avunduk E.
10th Asian Rock Mechanics Symposium, ARMS 2018, Singapore, Singapore, 29 October - 03 November 2018
- XIV. **TBM Performance Prediction using Laboratory Cutting Tests in Very Hard and Abrasive Rock Formations**
BİLGİN N., ÇOPUR H., BALCI C., TUMAÇ D.
International Conference on Tunnel Boring Machines in Difficult Grounds (TBM DiGs), Wuhan, China, 21 - 22 November 2017, pp.1-11
- XV. **Development of Performance Prediction Models for Block-Cutting Machines (S/T) with Circular Saws Used in Natural Stone Factories**

Shaterpour Mamaghani A., Tumaç D.

26th International Symposium on Mine Planning & Equipment Selection Conference, Lulea, Sweden, 29 - 31 August 2017, vol.1, no.1, pp.239-244

- XVI. **İstanbul'da Metro Tünellerinde Kullanılan Kazı Makinelerinin Tarihçesi, Seçimi, ve Sonuçlarının Jeoloji Açısından Önemi**
Balci C., BILGIN N., Çopur H., Tumaç D.
İstanbul'un Jeolojisi Sempozyumu V (Kent ve Jeoloji), İstanbul, Turkey, 12 - 14 May 2017, pp.34-40
- XVII. **İstanbul'da Metro Tünellerinde Kullanılan Mekanize Kazı Makinelerinin Tarihçesi, Seçimi, ve Sonuçlarının Jeoloji Açısından Önemi**
BALCI C., BİLGİN N., ÇOPUR H., TUMAÇ D.
5. İstanbul'un Jeolojisi Sempozyumu, İstanbul, Turkey, 12 - 14 May 2017
- XVIII. **TBM Performance Prediction using PLCM and Comparison with TBM field Performance Parameters**
COMAKLI R., Balci C., BILGIN N., Çopur H., Tumaç D., Avunduk E.
World Tunnel Congress (WTC 2017), Bergen, Norway, 1 - 04 May 2017, pp.7-0
- XIX. **Predicting Roadheader Performance by using Portable Linear Cutting Machine**
POLAT C., Balci C., Çopur H., Tumaç D.
World Tunnel Congress (WTC 2017), Bergen, Norway, 1 - 04 May 2017, pp.5-0
- XX. **Effect of Conditioning on Soil Workability Determined by Mini-Slump and Flow Table Tests**
Avunduk E., Tumaç D., Tolouei S., Çopur H., Balci C., BILGIN N.
World Tunnel Congress (WTC 2017), Bergen, Norway, 1 July - 04 January 2017, pp.10-0
- XXI. **Effect of Difficult Ground Conditions on Double Shield TBM Performance**
Avunduk E., MAMAGHANI A. S., Tumaç D.
9th Asian Rock Mechanics Symposium-ARMS9, Bali, Indonesia, 18 - 20 October 2016, pp.10-0
- XXII. **Determining the effect of texture coefficient on performance wire machines of diamond**
TUMAÇ D., ER S., AVUNDUK E., BAŞYIĞIT M., ÇOPUR H., BALCI C.
9th Asian Rock Mechanics Symposium "ARMS9", Balvi, Latvia, 18 - 20 October 2016
- XXIII. **Determining the Effect of Texture Coefficient on Performance of Diamond Wire Machines**
Tumaç D., ER S., Avunduk E., BASYIGIT M., Çopur H., Balci C.
9th Asian Rock Mechanics Symposium-ARMS9, Bali, Indonesia, 01 October 2016 - 04 October 2016, pp.8-0
- XXIV. **Determining the dominant rock properties affecting the impact hammer performance**
HOJJATI S., Tumaç D.
International Symposium on International Society for Rock Mechanics, ISRM 2016, Cappadocia, Turkey, 29 - 31 August 2016, vol.2, pp.907-912
- XXV. **Investigation of the effect of textural properties towards predicting sawing performance of diamond wire machines**
Tumaç D., AVUNDUK E., Çopur H., Balci C., ER S.
International Symposium on International Society for Rock Mechanics, ISRM 2016, Cappadocia, Turkey, 29 - 31 August 2016, vol.1, pp.211-216
- XXVI. **Full-scale linear cutting experiments with a conical cutter for simulating different cutting patterns**
Çopur H., BILGIN N., Balci C., Tumaç D., AVUNDUK E., MAMAGHANI A.
International Symposium on International Society for Rock Mechanics, ISRM 2016, Cappadocia, Turkey, 29 - 31 August 2016, vol.1, pp.153-158
- XXVII. **Foam Optimization and Relationship between Foam Use and EPB TBM Performance**
Tolouei S., Avunduk E., Çopur H., Tumaç D., Balci C., BILGIN N., ÇINAR M., Kahya S.
3rd Eastern European Tunnelling Conference (EETC 2016), Prague, Czech Republic, 1 - 04 June 2016, pp.8-0
- XXVIII. **Predicting Cutting Performance of Chisel Tools by Using Physical and Mechanical Properties of Natural Stones**
Çopur H., Balci C., BILGIN N., Tumaç D., Avunduk E.
European Rock Mechanics Symposium (EUROCK 2012, ISRM International Symposium), Stockholm, Sweden, 01 May 2016, pp.14-0
- XXIX. **Performance prediction of TBMs using a new generation of portable linear rock cutting machine**

PLCM

Balcı C., COMAKLI R., POLAT C., Tumaç D., Çopur H., BILGIN N.

ITA-AITES World Tunnel Congress 2016, WTC 2016, California, United States Of America, 22 - 28 April 2016, vol.4, pp.2828-2836

- XXX. **Investigation of the effect of textural properties towards sawability performance of diamond wire machines**
TUMAÇ D., AVUNDUK E., ER S., ÇOPUR H., BALCI C.
2016 ISRM International Symposium "EUROCK 2016", Niğde, Turkey, 28 - 31 January 2016, vol.1, pp.211-215
- XXXI. **The Effect of Mechanical Properties on Performance of Diamond Wire Machines**
Tumaç D., Avunduk E., BASYIGIT M., Çopur H., Balcı C., ER S.
Fifth Thailand Symposium on Rock Mechanics- Thairock 2015, Bangkok, Thailand, 1 - 04 October 2015, pp.389-395
- XXXII. **Physico-Mechanical Property Tests Towards Performance Prediction of Chain Saw Machines**
Tumaç D., Avunduk E., BASYIGIT M., Çopur H., Balcı C., ER S.
Fifth Thailand Symposium on Rock Mechanics- Thairock 2015, Bangkok, Thailand, 1 - 04 October 2015, pp.381-387
- XXXIII. **A New Generation of Portable Linear Rock Cutting Machine (PLCM) and Comparison with Full Scale Linear Rock Cutting Tests**
Balcı C., COMAKLI R., POLAT C., Tumaç D., Avunduk E., Çopur H., BILGIN N.
ITA World Tunnel Congress (WTC 2015), Dubrovnik, Croatia, 1 - 04 May 2015, pp.10-0
- XXXIV. **Cutter Forces Measurement with PLCM Using Mini Conical Pick: Comparison with the Theoretical and Empirical Models**
POLAT C., Balcı C., COMAKLI R., Avunduk E., Tumaç D., Çopur H., BILGIN N.
ITA World Tunnel Congress (WTC 2015), Dubrovnik, Croatia, 1 - 04 May 2015, pp.8-0
- XXXV. **Cutter Forces Measurement with (PLCM®) Using Mini Disc Cutters: Comparison with the Theoretical Models**
COMAKLI R., Balcı C., BILGIN N., Çopur H., Tumaç D., POLAT C., Avunduk E.
ITA World Tunnel Congress (WTC 2015), Dubrovnik, Croatia, 01 May 2015, pp.10-0
- XXXVI. **Levent-Hisarüstü Metro Projesinde Kullanılan Hidrolik Kırıcının Performans Analizi**
Tumaç D., Sezer F.
İstanbul'un Jeolojisi Sempozyumu IV (Jeolojik Açidan Mega Projeler), İstanbul, Turkey, 26 - 28 December 2014, pp.62-67
- XXXVII. **Pre-investigation to determine the effects of rock properties on performance of chain saw and diamond wire machines**
Tumaç D., AVUNDUK E., ER S., BASYIGIT M., Çopur H., Balcı C., YASAN I.
8th Asian Rock Mechanics Symposium, ARMS 2014, Sapporo, Japan, 14 - 16 October 2014, pp.1564-1572
- XXXVIII. **Cutting performance of chain saw and diamond wire machines in beige marble quarry**
AVUNDUK E., Tumaç D., BASYIGIT M., ER S., Çopur H., Balcı C.
8th Asian Rock Mechanics Symposium, ARMS 2014, Sapporo, Japan, 14 - 16 October 2014, pp.1573-1578
- XXXIX. **Amasya-Suluova Bölgesinde Bir Kömür Ocağının Galeri Kazıları İçin Kollu Galeri Açma Makinesi Seçimi ve Performans Tahmini**
Çopur H., Balcı C., Tumaç D., Avunduk E., COMAKLI R., POLAT C.
Türkiye 19. Kömür Kongresi Sempozyumu, İstanbul, Turkey, 21 - 23 May 2014, pp.87-104
- XL. **A Stochastic Method for Predicting Performance of EPB TBMS Working in Semi-Closed/Open Mode**
Çopur H., Aydın H., BILGIN N., Balcı C., Tumaç D., DAYANC C.
ITA-AITES World Tunnel Congress (WTC 2014), Iguassu Falls, Brazil, 1 - 04 May 2014, pp.8-0
- XLI. **Comparison of the Empirical and Artificial Neural Network Models to Estimate Performance of Roadheaders**
Tumaç D., Avunduk E.
3rd International Symposium on Underground Excavations for Transportation, UYAK 2013, İstanbul, Turkey, 29 - 30 November 2013, pp.91-98
- XLII. **Estimation of the performance of chain saw machines from shore hardness and the other mechanical properties**

Tumaç D., AVUNDUK E., Çopur H., BILGIN N., Balcı C.

3rd ISRM Symposium on Rock Characterisation, Modelling and Engineering Design Methods, SINOROCK 2013, Shanghai, China, 18 - 20 June 2013, pp.261-265

- XLIII. **Experimental comparison of single and double scroll cutting patterns by using chisel cutting tools of chain saw machines**

AVUNDUK E., Tumaç D., Çopur H., Balcı C., BILGIN N.

3rd ISRM Symposium on Rock Characterisation, Modelling and Engineering Design Methods, SINOROCK 2013, Shanghai, China, 18 - 20 June 2013, pp.729-734

- XLIV. **Comparison of Cutting Forces for V-type Disc Cutter and Performance Prediction of TBM Using Portable Linear Rock Cutting Machine (PLCM)**

Tumaç D., Balcı C., BILGIN N., Çopur H.

7th Asia Rock Mechanic Symposium (ARMS2012), Seoul, South Korea, 1 - 04 October 2012, pp.1156-1165

- XLV. **Rock Mechanics Aspects Related to Cutting Efficiency of Mechanical Excavators in Complex Geology**

BILGIN N., Balcı C., Çopur H., Tumaç D., Avunduk E.

European Rock Mechanics Symposium (EUROCK 2012, ISRM International Symposium), Stockholm, Sweden, 1 - 04 May 2012, pp.13-0

- XLVI. **Effect of some Geotechnical Properties on TBM Performance**

Avunduk E., Çopur H., BILGIN N., Balcı C., Tumaç D.

European Rock Mechanics Symposium (EUROCK 2012, ISRM International Symposium), Stockholm, Sweden, 1 - 04 May 2012, pp.9-0

- XLVII. **Zincirli Kesme Makinelerinin Performans Tahmini İçin Görgül Bir Model**

Çopur H., Balcı C., BILGIN N., Tumaç D., Avunduk E., Demirel Ş., Şimşek A.

Türkiye 3. Maden Makinaları Sempozyumu, İzmir, Turkey, 5 - 06 May 2011, pp.55-65

- XLVIII. **Niğde ve Kayseri Yöresindeki Demir Cevherlerinin Kazısında Kollu Galeri Açma Makinelerinin Performans Tahmini**

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Supported Projects

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Tumaç D., Seyedrezaei M., Project Supported by Higher Education Institutions, Dudullu-Bostancı Metro Hatında Zemin Şartlandırmanın EPB-TBM Performansının Üzerindeki Etkisinin Araştırılması, 2018 - 2021

Çopur H., Balcı C., Tumaç D., TUBITAK Project, Başyukarı Delme Makinelerinin (BDM) Performanslarının Tahmini Ve Optimizasyonu, 2018 - 2021

Tumaç D., TUBITAK Project, Doğal Taşların Arazi Ve Laboratuvarda Delinebilirliğine Etki Eden Mineralojik, Petrografik Ve Dokusal Özelliklerinin Araştırılması, 2018 - 2019

Tumaç D., Project Supported by Higher Education Institutions, Determining the Effect of Texture Coefficient on Performance of Diamond Wire Machines, 2016 - 2018

Tumaç D., Project Supported by Higher Education Institutions, The Effect of Mechanical Properties on Performance of Diamond Wire Machines, 2014 - 2018

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Tumaç D., Project Supported by Higher Education Institutions, Estimation of The Performance of Chain Saw Machines From Shore Hardness and The Other Mechanical Properties, 2013 - 2018

Tumaç D., Project Supported by Higher Education Institutions, Comprasion of Cutting Forces for V-Types Disc Cutter and Performance Prediction of TBM Using Portable Linear Rock Cutting Machine(PLCM), 2012 - 2018

Tumaç D., Project Supported by Higher Education Institutions, Doğal Taşların Mineralojik ve Petrografik Özelliklerinin Kırılma Etkisinin Araştırılması, 2015 - 2017

Tumaç D., Project Supported by Higher Education Institutions, Çamlıca Libadiye Karayolu Tünellerinde Darbeli Kırıcının Performans Tahmininin Araştırılması, 2016 - 2016

Çopur H., Balcı C., Tumaç D., TUBITAK Project, Pasa Basınçlı Tünel Açma Makinelerinin (EPB TBM) Kazı Performanslarının Tahmini ve Optimizasyonu, 2014 - 2016

Tumaç D., Project Supported by Other Official Institutions, Ahlat taşının Bitlis belediyesi mimarı yapılarında tarihi dokuyu koruma amaçlı mekanik montaj ile kullanılabilirliğinin araştırılması, 2015 - 2015

Tumaç D., TUBITAK Project, Doğal Taşların Dokusal Özelliklerinin Kesilebilirliğe Ve Kırılma Etkisinin Araştırılması, 2013 - 2015

Tumaç D., TUBITAK Project, Tam Cepheli Tünel Açma Makineleri (TBM) Performans Tahmini ve Optimizasyonu, 2006 - 2010

Tumaç D., CB Strateji ve Bütçe Başkanlığı (Kalkınma Bakanlığı) Projesi, Taş ocaklarında verimliliği arttırmak için çevreye uyumlu yeni kazı teknolojilerinin geliştirilmesi, 2004 - 2006

Tumaç D., TUBITAK Project, Kaya Kazı makinelerinin (Galeri ve Tünel Açma Makineleri gibi) optimum seçiminde kullanılmak üzere taşınabilir bir test cihazının geliştirilmesi, 2003 - 2006

Metrics

Publication: 117
Citation (WoS): 351
Citation (Scopus): 878
H-Index (WoS): 10
H-Index (Scopus): 17

Congress and Symposium Activities

International Tunneling Symposium in Turkey - Challenges of Tunneling, Session Moderator, İstanbul, Turkey, 2017

İstanbul'un Jeolojisi Sempozyumu V (Kent ve Jeoloji), Attendee, İstanbul, Turkey, 2017

9th Asian Rock Mechanics Symposium-ARMS9, Attendee, Jakarta, Indonesia, 2016

European Rock Mechanics Symposium (EUROCK 2016), Attendee, Nevşehir, Turkey, 2016

Fifth Thailand Symposium on Rock Mechanics- Thairock 2015, Attendee, Nakhon Ratchasima, Thailand, 2015

8th Asian Rock Mechanics Symposium-ARMS8, Attendee, Sapporo, Japan, 2014

Türkiye 19. Kömür Kongresi, Attendee, Zonguldak, Turkey, 2014

İstanbul'un Jeolojisi Sempozyumu IV (Jeolojik Açidan Mega Projeler), Attendee, İstanbul, Turkey, 2014

3rd International Symposium on Underground Excavations for Transportation, Moderator, İstanbul, Turkey, 2013

Rock Characterisation, Modelling and Engineering Design Methods - Sinorock2013, Attendee, Shanghai, China, 2013

Sinorock2013, Session Moderator, Shanghai, China, 2013

3rd International Symposium on Underground Excavations for Transportation, Attendee, İstanbul, Turkey, 2013

7th Asia Rock Mechanic Symposium, Session Moderator, Seoul, South Korea, 2012

7th Asia Rock Mechanic Symposium -ARMS 2012, Attendee, Seoul, South Korea, 2012

Awards

Çopur H., Shaterpour Mamaghani A., Gümüş A., Tumaç D., Balcı C., Best Paper Award, International Society Of Rock Mechanics (Isrm) And Italian Geotechnical Association (Iga), September 2021

Non Academic Experience

PennState University