

## Assoc. Prof. ONUR GÖLBAŞI

### Personal Information

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### International Researcher IDs

ScholarID: w5\_57WoAAAAJ

ORCID: 0000-0003-1544-1143

Publons / Web Of Science ResearcherID: P-9289-2015

ScopusID: 55194370200

Yoksis Researcher ID: 183023

### Education Information

Post Doctorate, Colorado School of Mines, Mining Engineering, United States Of America 2016 - 2017

Doctorate, Middle East Technical University, Faculty of Engineering, Maden Mühendisliği, Turkey 2011 - 2015

Postgraduate, Middle East Technical University, Faculty of Engineering, Maden Mühendisliği, Turkey 2008 - 2011

Undergraduate, Middle East Technical University, Faculty of Engineering, Maden Mühendisliği, Turkey 2002 - 2007

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, RELIABILITY-BASED MAINTENANCE OPTIMIZATION OF WALKING DRAGLINES, Middle East Technical University, Faculty of Engineering, Department of Mining Engineering, 2015

Postgraduate, INVESTIGATION OF STRESS DISTRIBUTION IN A DRAGLINE BUCKET USING FINITE ELEMENT ANALYSIS, Middle East Technical University, Faculty of Engineering, Department of Mining Engineering, 2011

### Research Areas

Mining Engineering and Technology, Mining Operations, Production Methods (open-pit and underground), Mine Transport Systems, Mineral Economics, Open pit and underground production planning, Workers' Health and Safety at Mine Operations and Facilities, Mining Methods and Mining System Analysis, Engineering and Technology

### Academic Titles / Tasks

Associate Professor, Middle East Technical University, Faculty of Engineering, Department of Mining Engineering, 2022 - Continues

Assistant Professor, Middle East Technical University, Faculty of Engineering, Department of Mining Engineering, 2018 -

2022

Researcher, Middle East Technical University, Faculty of Engineering, Department of Mining Engineering, 2017 - 2018

Researcher, Colorado School of Mines, Mühendislik Fakültesi, Maden Mühendisliği, 2016 - 2017

Research Assistant, Middle East Technical University, Faculty of Engineering, Department of Mining Engineering, 2009 - 2015

## Academic and Administrative Experience

Fakülte Kurulu Üyesi, Middle East Technical University, Faculty of Engineering, Department of Mining Engineering, 2024 - Continues

Staj Koordinatörü, Middle East Technical University, Faculty of Engineering, Department of Mining Engineering, 2020 - Continues

## Courses

Mine Design, Undergraduate, 2021 - 2022

Mine Systems Simulation, Postgraduate, 2020 - 2021

Mine Power and Machinery, Undergraduate, 2020 - 2021

Mine Valuation, Undergraduate, 2020 - 2021

Project Management in Mining, Undergraduate, 2020 - 2021

## Advising Theses

Gölbaşı O., Investigation of nonlinear interactions causing the major coal mine accidents in Türkiye using system dynamics modeling, Postgraduate, C.KUTAY(Student), 2024

Gölbaşı O., AN UNCERTAINTY ASSESSMENT MODELING FOR DEVIATIONS BETWEEN LONG- AND SHORT-RANGE PRODUCTION PLANS AT SURFACE METAL MINES, Postgraduate, T.BATUHAN(Student), 2023

Gölbaşı O., Simulation-based evaluation of blasthole drilling key performance metrics in surface mining, Postgraduate, K.KAYA(Student), 2023

Gölbaşı O., DEVELOPMENT OF RELIABILITY-BASED MAINTENANCE POLICIESFOR HAUL TRUCKS IN A SURFACE MINE, Postgraduate, M.SARIGÜL(Student), 2022

Gölbaşı O., SIMULATION-BASED OPTIMIZATION OF MAINTENANCE CREW CONFIGURATION IN MINING OPERATIONS, Postgraduate, Ş.FURKAN(Student), 2022

Gölbaşı O., LONG-TERM PRODUCTION SCHEDULING OPTIMIZATION FOR A POLYMETALLIC OPEN PIT MINE, Postgraduate, H.ESİN(Student), 2022

Gölbaşı O., UNCERTAINTY ASSESSMENT FOR THE SUPPLY CHAIN SYSTEM OF A CONCRETE COMPANY USING MONTE CARLO SIMULATION, Postgraduate, İ.TAHA(Student), 2021

Gölbaşı O., MICROSCOPIC FUEL CONSUMPTION MODELLING FOR HAULAGE TRUCKS USING DISCRETE-EVENT SIMULATION, Postgraduate, E.KINA(Student), 2021

Gölbaşı O., DEVELOPMENT OF A MULTI-SCENARIO SIMULATION MODEL FOR SPARE PARTS INVENTORY OPTIMIZATION IN MINING OPERATIONS, Postgraduate, S.ŞENSES(Student), 2021

Gölbaşı O., DEVELOPMENT OF A DYNAMIC MAINTENANCE ALGORITHM WITH MULTIPLE SCENARIOS: A CASE STUDY FOR SURFACE MINING, Postgraduate, M.ÖLMEZ(Student), 2019

## Jury Memberships

Doctorate, Doctorate, Eskişehir Osmangazi Üniversitesi, August, 2021

Post Graduate, Post Graduate, Middle East Technical University, August, 2021

Doctoral Examination, Doctoral Examination, Middle East Technical University, May, 2020  
Post Graduate, Post Graduate, McGill University, May, 2020  
Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, September, 2019  
Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, September, 2019  
Post Graduate, Post Graduate, Orta Doğu Teknik Üniversitesi, July, 2019  
Post Graduate, Post Graduate, Hacettepe Üniversitesi, June, 2019

## **Taught Courses And Trainings**

Gölbaşı O., Altun N. E., Erkayaoğlu M., Madencilikte Süreç Farkındalığı ve Yönetimi Sertifika Programı (Yerel İstihdam 1. ve 2. Grup), 2022 - 2022  
Gölbaşı O., Altun N. E., Erkayaoğlu M., Madencilikte Süreç Farkındalığı ve Yönetimi Sertifika Programı (Liderlik-1. Grup), 2021 - 2021  
Gölbaşı O., Risk Management, 2020 - 2020

## **Designed Courses And Trainings**

Gölbaşı O., Altun N. E., Erkayaoğlu M., Madencilikte Süreç Farkındalığı ve Yönetimi, May 2021

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

- I. **Simulation-based optimization of workforce configuration for multi-division maintenance departments**  
Gölbaşı O., Şahiner Ş. F.  
Computers and Industrial Engineering, vol.188, 2024 (SCI-Expanded)
- II. **Generic creep behavior and creep modeling of an aged surface support liner under tension**  
Guner D., Gölbaşı O., Öztürk H.  
JOURNAL OF ROCK MECHANICS AND GEOTECHNICAL ENGINEERING, vol.14, no.2, pp.377-384, 2022 (SCI-Expanded)
- III. **Haul truck fuel consumption modeling under random operating conditions: A case study**  
GÖLBAŞI O., Kina E.  
TRANSPORTATION RESEARCH PART D-TRANSPORT AND ENVIRONMENT, vol.102, 2022 (SCI-Expanded)
- IV. **Optimization of the lubricating oil inventory policy applied in a mining company**  
Şenses S., Gölbaşı O., S. Bakal İ. S.  
INTERNATIONAL JOURNAL OF MINING RECLAMATION AND ENVIRONMENT, vol.35, no.6, pp.451-470, 2021 (SCI-Expanded)
- V. **A discrete-event simulation algorithm for the optimization of multi-scenario maintenance policies**  
GÖLBAŞI O., Turan M. O.  
COMPUTERS & INDUSTRIAL ENGINEERING, vol.145, 2020 (SCI-Expanded)
- VI. **A cost-effective simulation algorithm for inspection interval optimization: An application to mining equipment**  
GÖLBAŞI O., DEMİREL N.  
COMPUTERS & INDUSTRIAL ENGINEERING, vol.113, pp.525-540, 2017 (SCI-Expanded)
- VII. **Optimisation of dragline inspection intervals with time-counter algorithm**  
Golbasi O., DEMİREL N.  
INTERNATIONAL JOURNAL OF MINING RECLAMATION AND ENVIRONMENT, vol.31, no.6, pp.412-425, 2017 (SCI-Expanded)
- VIII. **RISK-BASED RELIABILITY ALLOCATION METHODOLOGY TO SET A MAINTENANCE PRIORITY AMONG**

## **SYSTEM COMPONENTS: A CASE STUDY IN MINING**

GÖLBAŞI O., DEMİREL N.

EKSPLOATACJA I NIEZAWODNOSC-MAINTENANCE AND RELIABILITY, vol.19, no.2, pp.191-202, 2017 (SCI-Expanded)

- IX. **Preventive Replacement Decisions for Dragline Components Using Reliability Analysis**  
DEMİREL N., GÖLBAŞI O.  
MINERALS, vol.6, no.2, 2016 (SCI-Expanded)
- X. **Investigation of stress in an earthmover bucket using finite element analysis: A generic model for draglines**  
GÖLBAŞI O., DEMİREL N.  
Journal of the Southern African Institute of Mining and Metallurgy, vol.115, no.7, pp.623-628, 2015 (SCI-Expanded)

## **Articles Published in Other Journals**

- I. **A spare parts inventory optimization study in mining**  
Senses S., GÖLBAŞI O., BAKAL İ. S.  
PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, vol.28, no.1, pp.128-138, 2022 (ESCI)
- II. **Yedek Parça Envanter Politikasının Makina Kullanılabilirliğine Etkisini Değerlendirmeye Yönelik Bir Simülasyon Algoritması**  
Gölbaşı O.  
Çukurova Üniversitesi Mühendislik Mimarlık Fakültesi Dergisi, vol.35, no.2, pp.455-468, 2020 (Peer-Reviewed Journal)
- III. **Simulation of an Active Maintenance Policy: A Preliminary Study in Dragline Maintenance Optimization**  
GÖLBAŞI O., DEMİREL N.  
Lecture Notes in Mechanical Engineering, pp.669-679, 2016 (Scopus)
- IV. **Sonlu Elemanlar Analizi ile Çekme Kepçeli Yerkazarın Kepçesi Üzerindeki Gerilmelerin İncelenmesi**  
DEMİREL N., GÖLBAŞI O.  
TMMOB Madencilik Dergisi, vol.50, pp.3-9, 2011 (Peer-Reviewed Journal)

## **Refereed Congress / Symposium Publications in Proceedings**

- I. **Determination of Skilled Worker Requirements for Maintenance Departments Under Stochastic Failure Mode Conditions**  
ŞAHİNER Ş. F., GÖLBAŞI O.  
11th International Conference on Industrial Engineering and Applications-Europe, ICIEA-EU 2024, Nice, France, 10 - 12 January 2024, vol.507 LNBIP, pp.12-22
- II. **A Fault-Tree Integrated Simulation Methodology to Evaluate Deviations Between Short- And Long-Term Production Plans**  
Tekbey T. B., Gölbaşı O.  
28th International Mining Congress and Exhibition of Türkiye, Antalya, Turkey, 28 November 2023, pp.491-500
- III. **Simulation-Based Optimization of Maintenance Crew Configuration in Mining Sites**  
Şahiner Ş. F., Gölbaşı O.  
28th International Mining Congress and Exhibition of Türkiye, Antalya, Turkey, 28 November 2023, pp.541-549
- IV. **Rock Mass Classification & Determination of Geomechanical Properties in Beypaşarı Trona Field**  
Konuk C. N., Gölbaşı O., Yardimci A. G., Beşir T., Kayhan H. E.  
Kayamek2022, Isparta, Turkey, 26 - 28 May 2022, pp.1-7
- V. **Discrete-event simulation of a maintenance policy with multiple scenarios**

Turan M. O., GÖLBAŞI O.

28th International Symposium on Mine Planning and Equipment Selection, MPES 2019, Perth, Australia, 2 - 04 December 2019, pp.296-303

- VI. **An integrated simulation model for opportunistic maintenance**  
GÖLBAŞI O., Turan M. O., Karpuz C.  
39th International symposium on Application of Computers and Operations Research in the Mineral Industry, APCOM 2019, Wroclaw, Poland, 4 - 06 June 2019, pp.534-541
- VII. **Effect of Spare Parts Policy on Equipment Production Loss in Mining**  
GÖLBAŞI O.  
International Symposium on Mine Planning and Equipment Selection, Santiago, Chile, 19 - 22 November 2018
- VIII. **Equipment Replacement Analysis of Manual Trucks with Autonomous Truck Technology in Open Pit Mines**  
GÖLBAŞI O.  
International Symposium on the Application of Computers and Operations Research in the Mineral Industry, 9 - 11 August 2017
- IX. **Optimization of Dragline Inspection Intervals with Time Counter Algorithm**  
GÖLBAŞI O., DEMİREL N.  
6th International Conference on Computer Applications in the Minerals Industries, İstanbul, Turkey, 5 - 07 October 2016, pp.1-9
- X. **Simulation of an Active Maintenance Policy A Preliminary Study in Dragline Maintenance Optimization**  
GÖLBAŞI O., DEMİREL N.  
ICRESH-ARMS, Lulea, Sweden, 1 - 04 June 2015, pp.669-679
- XI. **Review of Trend Tests for Detection of Wear Out Period for Mining Machineries**  
GÖLBAŞI O., DEMİREL N.  
Uluslararası Madencilik Kongresi ve Sergisi, Antalya, Turkey, 14 - 17 April 2015, pp.933-939
- XII. **System Reliability Investigation of Draglines Using Fault Tree Analysis**  
DEMİREL N., Gölbaşı O., KESTEL A. S., DÜZGÜN H. Ş.  
Mine Planning and Equipment Selection, Delhi, India, 29 September - 01 October 2014, pp.1151-1158
- XIII. **Stochastic models in preventive maintenance policies**  
Gölbaşı O., Demirel N.  
5th International Conference on Mechanical and Aerospace Engineering, ICMAE 2014, Madrid, Spain, 18 - 19 July 2014, vol.1016, pp.802-806
- XIV. **Determination of Optimal Time Intervals for the Dragline Maintenance Using Probabilistic Approaches**  
GÖLBAŞI O., DEMİREL N.  
22nd International Symposium on Mine Planning and Equipment Selection, Dresden, Germany, 14 - 19 October 2013, vol.1, pp.1195-1203
- XV. **Çekme Keçeli Yerkazalarının Arıza Türleri ve Sınıflandırılması**  
GÖLBAŞI O., DEMİREL N.  
4. MADEN MAKİNALARI SEMPOZYUMU, İzmir, Turkey, 23 - 25 May 2013, pp.47-55
- XVI. **Failure Types of Draglines and Their Classification**  
GÖLBAŞI O., DEMİREL N.  
Maden Makinaları Sempozyumu, Turkey, 23 - 24 May 2013
- XVII. **Reliability of Dragline's Subsystems**  
GÖLBAŞI O., DEMİREL N.  
International Mining Congress of Turkey, Turkey, 16 - 19 April 2013
- XVIII. **Stress and Deformation Distribution in a Dragline Bucket Using Finite Element Analysis**  
GÖLBAŞI O., DEMİREL N.  
IV. Balkan Mining Congress, Ljubljana, Slovenia, 18 - 21 October 2011, pp.431-438

## Supported Projects

- Gölbaşı O., TUBITAK Project, Güvenli ve Sürdürülebilir Maden Modelleme & Planlama Tekniklerini Kullanarak Maden Ömrünün (Life Of Mine - LOM) Belirlenmesi, 2023 - 2025
- Gölbaşı O., Yardımcı A. G., Project Supported by Other Private Institutions, Kazan Soda Elektrik Üretim A.Ş. Trona Madeni Sahasında Yüzeyle Oluşabilecek Tasmanın Tahminine Yönelik Analiz ve Değerlendirmeler, 2023 - 2024
- Gölbaşı O., Yardımcı A. G., Project Supported by Other Private Institutions, Eti Soda A.Ş. Trona Madeni Sahasında Açılacak Olan Kömür Madeninin Muhtemel Trona Üretim Açıklıklarına Jeomekanik Etkilerinin Araştırılması, 2023 - 2024
- Gölbaşı O., Yardımcı A. G., Project Supported by Other Private Institutions, Eti Soda Beypazarı Trona Sahasında Trona ve Kömür Yatakları Arasında Kalan Formasyonun Sıvı Geçirimsizlik Değerlendirmesi , 2023 - 2023
- GÖLBAŞI O., TEKBEY T. B., Project Supported by Higher Education Institutions, Açık Ocak Madencilğinde Uzun ve Kısa Dönem Üretim Planlamaları Arasındaki Varyasyonlara Yönelik Belirsizlik Analizinin Gerçekleştirilmesi, 2022 - 2023
- Gölbaşı O., Öztürk H., Project Supported by Other Private Institutions, 72487 No'lu Maden İşletme Ruhsat Sahası Çakışma Alanındaki Rezerv Miktarının ve Devlet Hakkı Hesaplarının Değerlendirilmesi, 2022 - 2022
- GÖLBAŞI O., ŞENSES S., Project Supported by Higher Education Institutions, Bakım-Onarım Politikası Entegre Edilmiş ve Çoklu Senaryoya Sahip Bir Yedek Parça Envanter Simülasyon Geliştirilmesi, 2021 - 2022
- Gölbaşı O., Erkayaoğlu M., Project Supported by Other Private Institutions, Çöpler Sahası Madencilik Operasyonları için Standart Çalışma Prosedürlerinin Oluşturulması, 2021 - 2022
- Erkayaoğlu M., Gölbaşı O., Sürer E., Demirel N., EU Supported Other Project, Mixed Reality Application for Improving Mine Safety Culture in Underground Mining (MR4MS), 2021 - 2022
- Gölbaşı O., Yardımcı A. G., Project Supported by Other Private Institutions, Beypazarı Trona Yatakları Kaya Kütle Karakterizasyonu ve Üretim Açıklıklarının Nümerik Simülasyonlarla İncelenmesi, 2020 - 2022
- GÖLBAŞI O., SARIGÜL M., TOKAÇ B., ŞAHİNER Ş. F., ŞENSES S., Project Supported by Higher Education Institutions, Açık İşletmelerdeki Maden Kamyonları için Bir Eko-Sürüş Modeli Geliştirilmesi, 2019 - 2022

## Scientific Refereeing

- Cogent Engineering, SCI Journal, October 2022
- COMPUTERS & INDUSTRIAL ENGINEERING, SCI Journal, September 2022
- INTERNATIONAL JOURNAL OF MINING, RECLAMATION AND ENVIRONMENT, SCI Journal, September 2022
- COMPUTERS & INDUSTRIAL ENGINEERING, SCI Journal, April 2022
- INTERNATIONAL JOURNAL OF MINING, RECLAMATION AND ENVIRONMENT, SCI Journal, April 2022
- COMPUTERS & INDUSTRIAL ENGINEERING, SCI Journal, November 2021
- NATURAL RESOURCES RESEARCH, SCI Journal, October 2021
- COMPUTERS & INDUSTRIAL ENGINEERING, SCI Journal, October 2021
- NATURAL RESOURCES RESEARCH, SCI Journal, September 2021
- RELIABILITY ENGINEERING & SYSTEM SAFETY, SCI Journal, August 2021
- COMPUTERS & INDUSTRIAL ENGINEERING, SCI Journal, August 2021
- RELIABILITY ENGINEERING & SYSTEM SAFETY, SCI Journal, June 2021
- ARABIAN JOURNAL OF GEOSCIENCES, SCI Journal, April 2021
- INTERNATIONAL JOURNAL OF MINING RECLAMATION AND ENVIRONMENT, SCI Journal, April 2021
- COMPUTERS & INDUSTRIAL ENGINEERING, SCI Journal, March 2021
- COMPUTERS & INDUSTRIAL ENGINEERING, SCI Journal, March 2021
- COMPUTERS & INDUSTRIAL ENGINEERING, SCI Journal, December 2020
- COMPUTERS & INDUSTRIAL ENGINEERING, SCI Journal, November 2020
- INTERNATIONAL JOURNAL OF MINING RECLAMATION AND ENVIRONMENT, SCI Journal, November 2020
- COMPUTERS & INDUSTRIAL ENGINEERING, SCI Journal, August 2020
- COMPUTERS & INDUSTRIAL ENGINEERING, SCI Journal, August 2020
- COMPUTERS & INDUSTRIAL ENGINEERING, SCI Journal, July 2020
- APPLIED SOFT COMPUTING, SCI Journal, May 2020

COMPUTERS & INDUSTRIAL ENGINEERING, SCI Journal, April 2020  
COMPUTERS & INDUSTRIAL ENGINEERING, SCI Journal, January 2020  
COMPUTERS & INDUSTRIAL ENGINEERING, SCI Journal, December 2019  
RELIABILITY ENGINEERING & SYSTEM SAFETY, SCI Journal, November 2019  
COMPUTERS & INDUSTRIAL ENGINEERING, SCI Journal, September 2019  
ARABIAN JOURNAL OF GEOSCIENCES, SCI Journal, August 2019  
INTERNATIONAL JOURNAL OF SYSTEMS SCIENCE, SCI Journal, December 2018  
ARABIAN JOURNAL OF GEOSCIENCES, SCI Journal, November 2018  
RELIABILITY ENGINEERING & SYSTEM SAFETY, SCI Journal, August 2018  
ARABIAN JOURNAL OF GEOSCIENCES, SCI Journal, July 2018  
INTERNATIONAL JOURNAL OF MINING RECLAMATION AND ENVIRONMENT, SCI Journal, April 2018  
ARABIAN JOURNAL OF GEOSCIENCES, SCI Journal, April 2018  
Arabian Journal Of Geosciences, SCI Journal, March 2018

## **Metrics**

Publication: 32  
Citation (WoS): 84  
Citation (Scopus): 118  
H-Index (WoS): 6  
H-Index (Scopus): 6

## **Congress and Symposium Activities**

28th International Symposium on Mine Planning and Equipment Selection, Session Moderator, Perth, Australia, 2019

## **Non Academic Experience**

Colorado School of Mines  
Company, MechSoft Yazılım Ltd. Şti., Katı Modelleme ve Satış  
Company, Gürsan İnşaat Makinaları Ltd. Şti., Fiyat Analizi