

EDUCATION

- Ph.D. (2018)** : *Geological Engineering*, Middle East Technical University (***ABET-Europass***)
M.Sc. (2007) : *Mining Engineering*, Hacettepe University (***EUR-ACE***)
M.Sc. (2001) : *MBA*, Ankara University
B.Sc. (1997) : *Geological Engineering*, Hacettepe University (***EUR-ACE***)

WORK EXPERIENCE

- 2025 -** : Associate Teaching Professor, Missouri S&T
2021 - 2025 : Head of Department, General Directorate of Highways (***GDH***)
2017 - 2023 : Assistant Professor, Ankara University
2015 - 2021 : Internal Auditor, GDH, Internal Audit Unit
2011 - 2015 : Geological and Geotechnical Surveys Chief, GDH, Research and Development Dep.
2001 - 2011 : Geological and Geotechnical Survey Eng., GDH, Research and Development Dep.
1997 - 2001 : Engineering Geology Engineer, GDH, Research and Development Department

ACADEMIC STUDIES

Graduate thesis

1. Satici O., 2018, *Assessment of Plastic Zone Thickness and Convergences for Tunnels Excavated in Weak to Fair Quality Rocks in Turkey*, Doctor of Philosophy Thesis, Middle East Technical University, Ankara
2. Satici O., 2007, *Stability Analysis of T4 (Küçükbeltar) Tunnel on Kavak-Merzifon Road*, Master of Science Thesis, Hacettepe University, Ankara
3. Satici O., 2002, *The Effect of Culture on The Performance of Turkish Public Employees and The Operation of Public Organizations*, Master of Science Thesis, Ankara University, Ankara

International peer-reviewed journals

1. Satici O., Satici E., 2024, *Theoretical semi-quantitative risk assessment methodology for tunnel design and construction processes*, International Journal of System Assurance Engineering and Management, <https://doi.org/10.1007/s13198-024-02348-1> (**Q2 index**)
2. Satici O., Topal, T., 2021, *Assessment of Damage Zone Thickness and Wall Convergence for Tunnels Excavated in Strain-Softening Rock Masses*, Tunneling and Underground Space Technology, v108, 103722, <https://doi.org/10.1016/j.tust.2020.103722> (**Q1 index**)
3. Satici O., Topal, T., 2020, *Prediction of tunnel wall convergences for NATM tunnels which are excavated in weak-to-fair-quality rock masses using decision-tree technique and rock mass strength parameters*, Springer, SN Applied Sciences, 2:546, <https://doi.org/10.1007/s42452-020-2311-5> (**Q2 index**)
4. Satici O., Unver, B., 2015, *Assessment of Tunnel Portal Stability at Jointed Rock Mass: A Comparative Case Study*, Computers and Geotechnics, v64, p.72-82, <https://doi.org/10.1016/j.compgeo.2014.11.002> (**Q1 index**)

National peer-reviewed journals

1. Satici O., 2024, *Limitations in Tunnel Portal Design: An Evaluation Using Numerical Models and Line Surveys*, Journal of Geological Engineering, v48, p1-18, <https://doi.org/10.24232/jmd.1385219> (Scopus, Google Scholar, TUBITAK-ULAKBIM, TR index)
2. Satici O., 2024, *Risk Assessment Based Application Model for Design, Construction and Operational Stages for Conventionally Excavated Railway Tunnels*, Journal of Railway Engineering, <https://doi.org/10.47072/demiryolu.1384548> (TR index, ULAKBIM, SOBIAD)
3. Akis E., Satici O., 2017, *Underground Structures, Rock Structures and Rock Mechanics from Ancient Era to the Modern Age*, Journal of Geological Engineering, v41, p.155-172, <https://doi.org/10.24232/jmd.344499> (Scopus, Google Scholar, TUBITAK-ULAKBIM, TR index)
4. Satici O., Topal, T., 2015, *Evaluation of Tunnel Excavation Methods in Accordance with Engineering Geology and Rock Mass Classification Systems*, Journal of Geological Engineering, v39, p.45-57, <https://doi.org/10.24232/jeoloji-muhendisligi-dergisi.295353> (Scopus, Google Scholar, TUBITAK-ULAKBIM, TR index)

Books

- Satici O., 2021, *Projeler Nasıl Başarılı Olur, Mühendisler İçin Risk Yönetim Rehberi (How the Projects Get Success, Risk Management Guide for Engineers)*, Seçkin Yayıncılık (International Publishing Company), Ankara, p154, ISBN: 978 975 02 6843 4

Book chapters

- Editor: Karabacak, H., 2021, *Uzmanların Kaleminden Farklı Boyutlarıyla Risk ve Risk Yönetimi (Risk and Risk Management in Different Dimensions, From the Perspective of Experts)*, Gazi Kitabevi, Ankara, p358, ISBN: 978 625 7588 93 5

International symposium and congress

1. Satici O., 2024, *Risk Assessment-Based Novel Tunnel Construction Methodology Integrating Geotechnical Parameters and Field Measurements in Conventional Tunnel Excavations*, International Road Federation, IRF World Congress 2024, 15-18 October, Istanbul, TURKIYE
2. Satici O., 2015, *Effects of Paleo-Rock Landslide and Heavy Rainfalls to Tunnel Excavation*, SEE Tunnel: Promoting Tunneling in SEE Region ITA WTC 2015 Congress and 41st General Assembly May 22-28, Lacroma Valamar Congress Center, Dubrovnik, Croatia
3. Altuntas H.D., Bayram A., Tunay I.G., Gencoglu C., Satici O., 2015, *Planning and Designing the Izmir Bay Crossing and Connections*, SEE Tunnel: Promoting Tunneling in SEE Region ITA WTC 2015 Congress and 41st General Assembly May 22-28, Lacroma Valamar Congress Center, Dubrovnik, Croatia

National symposium and congress

1. Sirin A., Satici O., Akman, M.K., Tunay, I.G., 2015, *Geological-Geotechnical Investigation Studies and Preliminary Design of Izmir Bay Crossing Project*, 68th Geological Congress of Turkey, April 6-10, Ankara
2. Sirin A., Satici O., 2014, *Geological and Geotechnical Ground Studies For 3rd Bosphorus Bridge*, ROCKMEC'2014-XIth, Regional Rock Mechanics Symposium, Afyonkarahisar, Turkey

Examined thesis and reviewed articles

1. Geotechnical and Geological Engineering, *Evaluation of Errors and Uncertainties in Debris Flow Modeling with RAMMS*, 2024
2. Bulletin of Engineering Geology and the Environment, *Study on Mechanism and Prevention for Instability of Shallow-buried and Bedding-biased-pressure Tunnel Portal Slope*, 2024
3. Journal of Underground Space, *Deformation Control Method for Large-Section Tunnel Construction in Fractured Carbonaceous Slate – A Case Study*, 2021
4. Journal of Geotechnical and Geological Engineering, *Rock Mass Characterization using Polynomial Functions*, 2020
5. Arabian Journal of Geosciences, *Analytical Model of Borehole Breakout Damage Zone Using Hoek-Brown and Fairhurst Failure Criteria*, 2020
6. Journal of Geological Engineering, *Geotechnical Evaluation and Support System of Portal Regions of Right Tube of the Guneyce Highway Tunnel*, 2019
7. Environmental Engineering and Management Journal, *Environmental Load Estimating Model for NATM Tunnel Using Case Based Reasoning*, 2016
8. Arabian Journal of Geosciences, *Quantitative Risk Geological Assessment for the Shallow NATM Tunnel Excavation Based on the On-Site Surface Site Investigation Data*, 2015
9. METU, Master of Science Thesis, *Verification of Empirically Determined Support Systems of the Kiliclar Highway Tunnel by Numerical Modeling*, 2011

AWARDS

- Turkish Road Association, 2021 Article Award, "Assessment of Damage Zone Thickness and Wall Convergence for Tunnels Excavated in Strain-Softening Rock Masses"

AREAS of EXPERTISE

- Engineering geology and its field applications
- Finite element numerical modeling
- Geotechnical drillings and analysis
- Geotechnical site investigation studies
- Landslide prevention and applications
- Risk analysis and project management
- Risk based audit of engineering projects
- Road engineering project design
- Rock mechanics
- Rocscience applications
- Slope stability analysis
- Tools and techniques for ground improvement
- Tunnel excavation, support design, and their applications
- Tunnel stability analysis
- Types and selection of rock and soil support

CERTIFICATES

- *Training of Trainers Certificate*, certificated by World Bank in 2017 and 2018
- *Training of Trainers Certificate*, certificated by Ankara University in 2015
- *Tunnel Design, Guidelines, Construction and Contractual Practices with Case Studies Tunneling Seminar*, 31 March – 01 April 2015, certificated by Prof. Dr. Wulf Schubert, organized by Turkish Road Association, Ankara, TURKIYE
- *Numerical Modeling and Geomechanic Applications Workshop*, 25-26 October 2011, certificated by Prof. Dr. K. Onder CETIN, Prof. Dr. John CURRAN, Prof. Dr. Resat ULUSAY, organized by Rocscience, Ankara, TURKIYE
- *Geotechnical Calculation with Plaxis*, 23-25 February 2011, certificated by Dr. Mehmet BERILGEN, organized by Plaxis, Ankara, TURKIYE
- *24 Hours Tunnel Engineering Training Course*, 5-7 May 2005, certificated by Prof. Dr. Daniele PEILA, Prof. Dr. Ahmet SAGLAMER, organized by International Tunnelling Association, Istanbul, TURKIYE

GIVEN TECHNICAL SEMINARS and COURSES

1. Applied Project Risk Management Training, Social Sciences University of Ankara, Audit and Risk Management Center, 2019, Ankara
2. Risk Management Short Course, World Bank, Public Sector Internal Auditors, Trainers of Trainee Project, June 2018, Vienna, Austria
3. Short Course for International Standards for Preparing Engineering Geology Map and Cross-Sections, GDH 14th Division Directorate, November 2013, Yalova
4. Short Course for Calculations Model for Supporting Elements in Underground Excavations, GDH 14th Division Directorate, November 2013, Yalova
5. Seminar; Multistage Tunnel Excavation & Support Design Model with Phase2d, METU, June 2012, Ankara
6. Seminar; Method of Assessment of Plastic Radii for Tunnels, METU, May 2012, Ankara
7. Seminar; Underground Excavation Supporting Equipment, Area of Use and Their Specifications, METU, June 2012, Ankara
8. Seminar; Underground Tunnel Excavation/Passages Methods and Excavation Techniques, METU, June 2012, Ankara
9. Case Study Analysis: Teton Dam Failure, METU, March 2012, Ankara
10. Case Study Analysis: Failure of Lower San Fernando Dam, METU, March 2012, Ankara
11. Short Course for Tunnel Project Design Fundamentals, GDH 13th Division Directorate, April 2012, Antalya
12. Short Course for Engineering Geology Studies in Tunnels, GDH 10th Division Directorate, March 2012, Trabzon

13. Short Course; Importance of Geological and Geotechnical Studies in Tunnel Project Designs, GDH, March 2012, Ankara
14. Short Course for Site Investigations for Tunnel Project and Laboratory Experiments, GDH 7th Division Directorate, November 2011, Samsun
15. Seminar; Subsurface Exploration Methods, and Engineering Geophysics, METU, October 2011, Ankara
16. Symposium; Geological investigations during the design stage of tunnels, Tunnels and Underground Construction Eurasia, December 2010, Istanbul
17. Short Course for Slope Stability Analysis Methods and Software Applications, GDH, April 2006, Ankara
18. Seminar; Drilling & Blasting as A Tunnel Excavation Method, Hacettepe University, January 2006, Ankara
19. Seminar; Alp Transit Tunnel Project, Hacettepe University, January 2006, Ankara
20. Seminar; Application of Stereographic Projection Method on Design of Rock Wedges & Tunneling Application, Hacettepe University, 2005

ATTENDED WORKSHOP & CONGRESS

1. Tunneling Seminar, Tunnel Design, Guidelines, Construction and Contractual Practices with Case Studies, Organized by Turkish Road Association, Schubert, W., April 2015, Ankara, Turkey
2. Numerical Modeling and Geomechanic Applications Workshop, September 2013, Certificated by Prof. Dr. K. Onder CETIN, Prof. Dr. John CURRAN, Prof. Dr. Resat ULUSAY, Ankara, Turkiye
3. Xth Regional Rock Mechanics Symposium, December 2011, Turkish National Rock Mechanics Society, METU, Ankara, Turkey
4. Numerical Modeling and Geomechanic Applications Workshop (Arranged by Rocscience), October 2011, Ankara, Turkiye
5. Geotechnical Calculation with Plaxis February 2011, Dr. Mehmet BERILGEN, Ankara, Turkiye
6. World Tunnel Congress, In-Mo LEE, Chungsik YOO, April 2006, Seoul, South Korea
7. World Tunnel Congress and Workshop, Prof. Dr. Daniele PEILA, May 2005, Istanbul