

## Prof. Ahmet TORTUM

### Personal Information

Office Phone: [+90 442 231 4793](tel:+904422314793)

Web: <https://avesis.atauni.edu.tr/atortum>

### International Researcher IDs

ScholarID: MIVxWo0AAAAJ

ORCID: 0000-0002-5770-766X

Yoksis Researcher ID: 124053

### Education Information

Doctorate, Ataturk University, Mühendislik Fakültesi, İnşaat Mühendisliği, Ulaştırma, Turkey 1997 - 2003

Postgraduate, Ataturk University, Mühendislik Fakültesi, İnşaat Mühendisliği, Ulaştırma, Turkey 1994 - 1997

Undergraduate, Ataturk University, Mühendislik Fakültesi, İnşaat Mühendisliği, Turkey 1989 - 1993

### Dissertations

Doctorate, Yapay sinir ağları ve birleştirilmiş sinirsel bulanık sistemler ile şehirlerarası yük taşınması tür seçiminin modellenmesi, Atatürk Üniversitesi, Fen Bilimleri Enstitüsü, İnşaat Mühendisliği, Ulaştırma, 2003

Postgraduate, Atık araba lastiklerinin asfalt betonunda kullanılabilirliğinin tagucfi optimizasyon metodu ile araştırılması, Atatürk Üniversitesi, Fen Bilimleri Enstitüsü, İnşaat Mühendisliği, Ulaştırma, 1997

### Research Areas

Civil Engineering, Transportation Engineering, Transportation Engineering, Traffic Engineering, Engineering and Technology

### Academic Titles / Tasks

Professor, Ataturk University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2015 - Continues

Associate Professor, Ataturk University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2010 - 2015

Assistant Professor, Ataturk University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2005 - 2010

### Academic and Administrative Experience

Manager of Research and Application Center, Ataturk University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2020 - Continues

Head of Department, Ataturk University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2018 - Continues

Head of Department, Ataturk University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2017 - 2020

Fakülte Kurulu Üyesi, Ataturk University, Mühendislik Fakültesi, İnşaat Mühendisliği, 2017 - 2020

## Courses

ULAŞTIRMA MODELLERİ, Postgraduate, 2022 - 2023  
Ulaştırma Planlamasına Giriş, Undergraduate, 2021 - 2022  
Ulaştırma Planlamasına Giriş, Undergraduate, 2021 - 2022  
OTOPARK PLANLAMASI VE YÖNETİMİ , Postgraduate, 2021 - 2022  
MÜH. EKONOMİSİ A, Undergraduate, 2022 - 2023  
Sürdürülebilir Ulaştırma, Doctorate, 2021 - 2022  
KENTİÇİ ULAŞIM PLANLAMASI, Postgraduate, 2022 - 2023  
İstatistik ve Olasılık , Undergraduate, 2021 - 2022  
Karayolu Mühendisliği, Undergraduate, 2021 - 2022  
Karayolu Mühendisliği, Undergraduate, 2021 - 2022  
İNŞAAT MÜH. SEÇMELİ TASARIM , Undergraduate, 2021 - 2022  
MÜH. EKONOMİSİ A, Undergraduate, 2020 - 2021  
İstatistik ve Olasılık A, Undergraduate, 2020 - 2021  
Karayolu Mühendisliği A, Undergraduate, 2020 - 2021  
Karayolu Mühendisliği A, Undergraduate, 2020 - 2021  
İNŞAAT MÜH. SEÇMELİ TASARIM , Undergraduate, 2020 - 2021  
İNŞAAT MÜH. SEÇMELİ TASARIM -, Undergraduate, 2020 - 2021  
MÜH. EKONOMİSİ B, Undergraduate, 2019 - 2020  
MÜH. EKONOMİSİ B, Undergraduate, 2019 - 2020  
İstatistik ve Olasılık B, Undergraduate, 2019 - 2020  
İstatistik ve Olasılık A, Undergraduate, 2019 - 2020  
İstatistik ve Olasılık B, Undergraduate, 2019 - 2020

## Jury Memberships

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Atatürk Üniversitesi, December, 2022  
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Atatürk Üniversitesi, December, 2022  
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Atatürk Üniversitesi, December, 2022  
Appointment to Academic Staff - Associate Professorship, Appointment to Academic Staff - Associate Professorship, Atatürk Üniversitesi, October, 2022  
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Atatürk Üniversitesi, June, 2022  
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Atatürk Üniversitesi, June, 2022  
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Atatürk Üniversitesi, June, 2022  
Post Graduate, Post Graduate, Atatürk Üniversitesi, December, 2021  
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Atatürk Üniversitesi, October, 2021  
Doctorate, Doctorate, Atatürk Üniversitesi, June, 2021  
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Atatürk Üniversitesi, March, 2021  
Post Graduate, Post Graduate, Atatürk Üniversitesi, August, 2020  
Post Graduate, Post Graduate, Atatürk Üniversitesi, July, 2020  
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Atatürk Üniversitesi, June, 2020  
PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Atatürk Üniversitesi, June, 2020  
Post Graduate, Post Graduate, Atatürk Üniversitesi, June, 2020  
Associate Professor Exam, Associate Professor Exam, Atatürk Üniversitesi, April, 2020  
Appointment to Academic Staff-Assistant Professorship, Appointment Academic Staff, Atatürk Üniversitesi, March, 2020  
Doctorate, Doctorate, Atatürk Üniversitesi, March, 2020

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Atatürk Üniversitesi, January, 2020

PhD Thesis Monitoring Committee Member, PhD Thesis Monitoring Committee Member, Atatürk Üniversitesi, January, 2020

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

- I. **Investigation of The Use of Nano Powder On Roller Compressible Fibrous Concrete Roads**  
Sunbul S., TORTUM A.  
CASE STUDIES IN CONSTRUCTION MATERIALS, vol.21, 2024 (SCI-Expanded)
- II. **Public Transport Modeling for Commuting in Cities with Different Development Levels Using Extended Theory of Planned Behavior**  
Arslannur B., TORTUM A.  
SUSTAINABILITY, vol.15, no.15, 2023 (SCI-Expanded)
- III. **Influential Factors of Household Car and Vehicle Ownership in Urban Areas of Turkey**  
ÇELİK A. K., KABAKUŞ N., TORTUM A.  
TRANSPORTATION RESEARCH RECORD, vol.2677, no.6, pp.218-240, 2023 (SCI-Expanded)
- IV. **Evaluating fatigue and crack resistance of asphalt mixture containing zinc tailing aggregates**  
Ipekyol A., TORTUM A., Rasouli R., Yazdani M.  
CASE STUDIES IN CONSTRUCTION MATERIALS, vol.17, 2022 (SCI-Expanded)
- V. **Electric car sharing stations site selection from the perspective of sustainability: A GIS-based multi-criteria decision making approach**  
Kaya Ö., Alemdar K. D., Atalay A., Codur M. Y., Tortum A.  
SUSTAINABLE ENERGY TECHNOLOGIES AND ASSESSMENTS, vol.52, 2022 (SCI-Expanded)
- VI. **Forecasting the Accident Frequency and Risk Factors: A Case Study of Erzurum, Turkey**  
Sahraei M. A., Codur M. K., Codur M. Y., TORTUM A.  
TEHNICKI VJESNIK-TECHNICAL GAZETTE, vol.29, no.1, pp.190-199, 2022 (SCI-Expanded)
- VII. **Identifying the Most Critical Intersections in Transportation Networks**  
KUŞKAPAN E., Codur M. Y., TORTUM A.  
TEHNICKI VJESNIK-TECHNICAL GAZETTE, vol.28, no.6, pp.1920-1926, 2021 (SCI-Expanded)
- VIII. **Fractal Dimensions of Road Networks in Amman Metropolitan Districts**  
Abid R. I., TORTUM A., ATALAY A.  
Alexandria Engineering Journal, vol.60, no.4, pp.4203-4212, 2021 (SCI-Expanded)
- IX. **The Development of Decarbonisation Strategies: A Three-Step Methodology for the Suitable Analysis of Current EVCS Locations Applied to Istanbul, Turkey**  
KAYA Ö., ALEMDAR K. D., Campisi T., TORTUM A., Codur M. K.  
ENERGIES, vol.14, no.10, 2021 (SCI-Expanded)
- X. **The Fractal Geometry of Turkey's Urban Transportation Networks**  
Abid R. I., TORTUM A.  
KSCE JOURNAL OF CIVIL ENGINEERING, vol.25, no.4, pp.1455-1466, 2021 (SCI-Expanded)
- XI. **Interdisciplinary Evaluation of Intersection Performances-A Microsimulation-Based MCDA**  
Alemdar K. D., Tortum A., Kaya Ö., Atalay A.  
SUSTAINABILITY, vol.13, no.4, 2021 (SCI-Expanded)
- XII. **Site selection for EVCS in Istanbul by GIS and multi-criteria decision-making**  
KAYA Ö., TORTUM A., ALEMDAR K. D., Codur M. Y.  
TRANSPORTATION RESEARCH PART D-TRANSPORT AND ENVIRONMENT, vol.80, 2020 (SCI-Expanded)
- XIII. **Comparative analysis of trip generation models according to household characteristics for developed, developing and non-developed provinces in Turkey**  
KABAKUŞ N., TORTUM A.  
SADHANA-ACADEMY PROCEEDINGS IN ENGINEERING SCIENCES, vol.44, no.5, 2019 (SCI-Expanded)

- XIV. **Determination of the optimum conditions for gilsonite and glass fiber in HMA under mixed Mode I/III loading in fracture tests**  
KHANGHAHI S. H., TORTUM A.  
Journal of Materials in Civil Engineering, vol.30, no.7, 2018 (SCI-Expanded)
- XV. **Properties of pumice aggregate concretes at elevated temperatures and comparison with ANN models**  
Tuerkmen I., Bingoel A. F., TORTUM A., Demirboğa R., Guel R.  
FIRE AND MATERIALS, vol.41, no.2, pp.142-153, 2017 (SCI-Expanded)
- XVI. **Trends in Road Traffic Accidents in Turkey**  
TORTUM A., ATALAY A., GÖKDAĞ M.  
Iranian Journal of Public Health, 2016 (SCI-Expanded)
- XVII. **Spatial analysis of road mortality rates in Turkey**  
TORTUM A., ATALAY A.  
PROCEEDINGS OF THE INSTITUTION OF CIVIL ENGINEERS-TRANSPORT, vol.168, no.6, pp.532-542, 2015 (SCI-Expanded)
- XVIII. **Clustering Analysis of Traffic Accident Risk in Turkey**  
TORTUM A., ATALAY A.  
IRANIAN JOURNAL OF PUBLIC HEALTH, vol.44, no.3, pp.425-426, 2015 (SCI-Expanded)
- XIX. **AN ARTIFICIAL NEURAL NETWORK MODEL FOR HIGHWAY ACCIDENT PREDICTION: A CASE STUDY OF ERZURUM, TURKEY**  
Codur M. Y., TORTUM A.  
PROMET-TRAFFIC & TRANSPORTATION, vol.27, no.3, pp.217-225, 2015 (SCI-Expanded)
- XX. **Neural networks analysis of compressive strength of lightweight concrete after high temperatures**  
BİNGÖL A. F., TORTUM A., Gul R.  
MATERIALS & DESIGN, vol.52, pp.258-264, 2013 (SCI-Expanded)
- XXI. **Clustering analysis of the districts in Erzurum for traffic accidents between 2002 and 2007**  
TORTUM A., Kabakus N., CODUR M. Y., ATALAY A., Ulugtekin N.  
Scientific Research and Essays, vol.6, no.13, pp.2850-2857, 2011 (SCI-Expanded)
- XXII. **Prediction of the unconfined compressive strength of compacted granular soils by using inference systems**  
KALKAN E., Akbulut S., TORTUM A., Celik S.  
ENVIRONMENTAL GEOLOGY, vol.58, no.7, pp.1429-1440, 2009 (SCI-Expanded)
- XXIII. **The modeling of mode choices of intercity freight transportation with the artificial neural networks and adaptive neuro-fuzzy inference system**  
TORTUM A., Yayla N., GÖKDAĞ M.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.36, no.3, pp.6199-6217, 2009 (SCI-Expanded)
- XXIV. **Rejoinder to Discussion 'Prediction of concrete clastic modulus using adaptive neuro-fuzzy inference system'**  
AYDIN A. C., TORTUM A., Yavuz M.  
CIVIL ENGINEERING AND ENVIRONMENTAL SYSTEMS, vol.26, no.2, pp.158, 2009 (SCI-Expanded)
- XXV. **Determination of the apparent rate constants of the degradation of humic substances by ozonation and modeling of the removal of humic substances from the aqueous solutions with neural network**  
OĞUZ E., TORTUM A., Keskinler B.  
JOURNAL OF HAZARDOUS MATERIALS, vol.157, pp.455-463, 2008 (SCI-Expanded)
- XXVI. **Determination of the apparent ozonation rate constants of 1 : 2 metal complex dyestuffs and modeling with a neural network**  
OĞUZ E., Keskinler B., TORTUM A.  
CHEMICAL ENGINEERING JOURNAL, vol.141, pp.119-129, 2008 (SCI-Expanded)
- XXVII. **The investigation of model selection criteria in artificial neural networks by the Taguchi method**  
Tortum A., YAYLA N., Celik C., Goekdag M.  
PHYSICA A-STATISTICAL MECHANICS AND ITS APPLICATIONS, vol.386, no.1, pp.446-468, 2007 (SCI-Expanded)

- XXVIII. **Prediction of concrete elastic modulus using adaptive neuro-fuzzy inference system**  
AYDIN A. C., TORTUM A., YAVUZ M.  
CIVIL ENGINEERING AND ENVIRONMENTAL SYSTEMS, vol.23, no.4, pp.295-309, 2006 (SCI-Expanded)
- XXIX. **Determination of the optimum conditions for tire rubber in asphalt concrete**  
TORTUM A., ÇELİK C., Cüneyt Aydın A. C.  
BUILDING AND ENVIRONMENT, vol.40, no.11, pp.1492-1504, 2005 (SCI-Expanded)

## Articles Published in Other Journals

- I. **URBAN ROAD TRANSPORT NETWORK ANALYSIS: MACHINE LEARNING AND SOCIAL NETWORK APPROACHES**  
Kuşkapan E., Çodur M. Y., TORTUM A., Tesoriere G., Campisi T.  
Communications - Scientific Letters of the University of Žilina, vol.24, no.4, 2022 (Scopus)
- II. **Investigation of transportation investments in Bursa in terms of urban-environment-community relations**  
ÜNAL A., TORTUM A.  
Ömer Halisdemir Üniversitesi Mühendislik Bilimleri Dergisi, vol.11, no.1, 2021 (Peer-Reviewed Journal)
- III. **Examination of the Possibility of Using Gilsonite in Hot Mix Asphalt Concrete**  
KHANGHAHÍ S. H., TORTUM A.  
JORDAN JOURNAL OF CIVIL ENGINEERING, vol.13, no.1, pp.136-148, 2019 (ESCI)
- IV. **Toplu Taşıma Kullanımının İkili Lojistik Regresyonu ile Karşılaştırmalı Analizi**  
KABAKUŞ N., TORTUM A.  
İğdır Üniversitesi Fen Bilimleri Enstitüsü Dergisi, 2018 (Peer-Reviewed Journal)
- V. **EFFECT OF TOBACCO SMOKING ON DRIVING ACCIDENTS BY USING CLUSTER ANALYSIS**  
TORTUM A., NİKAKHTAR H., SHİRMOHAMMADÍ H.  
NATIONAL ACADEMY OF MANAGERIAL STAFF OF CULTURE AND ARTS HERALD, pp.634-644, 2018 (Peer-Reviewed Journal)
- VI. **Clustering of Districts in Erzurum by Number of Injury**  
BOLAKAR H., TORTUM A., ATALAY A.  
Journal of Traffic and Logistics Engineering, vol.3, pp.125-129, 2015 (Peer-Reviewed Journal)
- VII. **Accident analysis with aggregated data: The random parameters negative binomial panel count data model**  
Coruh E., Bilgiç A., Tortum A.  
ANALYTIC METHODS IN ACCIDENT RESEARCH, vol.7, pp.37-49, 2015 (ESCI)
- VIII. **Spatial Analysis of Traffic Accident with Geographic Information Systems GIS The Erzurum Case**  
KABAKUŞ N., TORTUM A.  
Uluslararası Trafik ve Ulaşım Güvenliği Dergisi, 2015 (Peer-Reviewed Journal)
- IX. **The Analysis of Traffic Accidents in Erzurum Province and Its Districts Through Use of Geographical Information Systems**  
TORTUM A., BOLAKAR H., ÇODUR M. Y., KABAKUŞ N.  
Journal of Traffic and Logistics Engineering, 2015 (Peer-Reviewed Journal)
- X. **Faktör analizi kullanılarak trafik kazalarının modellenmesi**  
ATALAY A., TORTUM A., ÇODUR M. Y.  
ULUSLARARASI TRAFİK VE ULAŞIM GÜVENLİĞİ DERGİSİ/INTERNATIONAL JOURNAL OF TRAFFIC AND TRANSPORTATION SAFETY, vol.1, pp.35-54, 2014 (Peer-Reviewed Journal)
- XI. **Genelleştirilmiş Lineer Regresyon ile Erzurum Kuzey Çevre Yolu Kaza Tahmin Modeli**  
ÇODUR M. Y., TORTUM A., KAYACI ÇODUR M.  
İğdır Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.3, 2013 (Peer-Reviewed Journal)
- XII. **Türkiye’de Trafik Kazalarının Count Data Model İle İncelenmesi**  
ÇORUH E., BİLGİÇ A., TORTUM A.

Uluslararası Trafik Ve Ulaşım Güvenliği Dergisi, vol.1, no.1, pp.69-86, 2013 (Peer-Reviewed Journal)

- XIII. **Erzurumun İlçelerinde Meydana Gelen Trafik Kazalarının Coğrafi Bilgi Sistemleri İle Değerlendirilmesi**  
KABAKUŞ N., TORTUM A., ÇODUR M. Y.  
Ordu Üniversitesi Bilim ve Teknoloji Dergisi, vol.2, no.2, pp.78-92, 2012 (Peer-Reviewed Journal)
- XIV. **Türkiye de 1977 2006 Yılları Arasında Meydana Gelen Aylık Trafik Kazalarının Zamansal Analizi**  
ATALAY A., TORTUM A., GÖKDAĞ M.  
Pamukkale Üniversitesi Mühendislik Bilimleri Dergisi, vol.18, pp.221-229, 2012 (Peer-Reviewed Journal)
- XV. **Türkiye'xxde 1977-2006 Yılları Arasında Meydana Gelen Aylık Trafik Kazalarının Zamansal Analizi**  
ATALAY A., TORTUM A., GÖKDAĞ M.  
Pamukkale Üniversitesi Mühendislik Bilimleri Dergisi, 2012 (ESCI)
- XVI. **Türkiye deki illerin 1997 2006 yılları arası trafik kazalarına göre kümeleme analizi**  
ATALAY A., TORTUM A.  
PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, vol.16, pp.335-343, 2010 (Peer-Reviewed Journal)
- XVII. **Optimum conditions for steel fibers on the pumice concrete**  
AYDIN A. C., DÜZGÜN O. A., TORTUM A.  
Pollack Periodica, vol.3, no.1, pp.101-112, 2008 (Scopus)

## Books & Book Chapters

- I. **An Overview of Traffic Accident Prediction Models**  
Sahraei M. A., KUŞKAPAN E., ÇODUR M. Y., TORTUM A.  
Nobel Akademik Yayıncılık, 2021

## Refereed Congress / Symposium Publications in Proceedings

- I. **INVESTIGATION OF TRANSITION APPLICATIONS FROM SIGNALIZED INTERSECTIONS TO SMART INTERSECTIONS THE CASE OF BURSA PROVINCE**  
ÜNAL A., TORTUM A.  
11th INTERNATIONAL CONFERENCE ON APPLIED SCIENCES, Turkey, 18 December 2022
- II. **EXAMINING THE FUTURE OF AUTONOMOUS VEHICLE USE**  
ÜNAL A., TORTUM A.  
11. KARADENİZ UYGULAMLI BİLİMLER KONGRESİ TAM METİN KİTABI, Turkey, 18 December 2022
- III. **The fractal dimensions of the road networks: A study of Jordan governorates**  
İbrahim R., TORTUM A.  
THE 3RD INTERNATIONAL CONFERENCE ON SCIENCE EDUCATION, 03 October 2022, vol.2600, pp.1-12
- IV. **Investigation of The Effect of Cancellation of Ido Car Ferry Services on Travelers**  
ÜNAL A., TORTUM A.  
1st International Conference on Innovative Academic Studies, Turkey, 10 September 2022

## Other Publications

- I. **E6. Aydın, A.C., Tortum,A., Yavuz, M., Betondaki Klorür Miktarının Yapay Sinir Ağları Kullanılarak Modellenmesi, Bilimde Modern Yöntemler Sempozyumu, 15-17 Ekim 2008,Eskişehir, s. 875-883.**  
AYDIN A. C., TORTUM A., yavuz m.  
Other, pp.875-883, 2008
- II. **E6. Aydın, A.C., Tortum,A., Yavuz, M., Betondaki Klorür Miktarının Yapay Sinir Ağları Kullanılarak**

**Modellenmesi, Bilimde Modern Yöntemler Sempozyumu, 15-17 Ekim 2008,Eskişehir, s. 875-883.**

AYDIN A. C., TORTUM A., yavuz m.

Other, pp.875-883, 2008

## **Supported Projects**

TORTUM A., BAYRAK O. Ü., ATALAY A., Project Supported by Higher Education Institutions, Atatürk Üniversitesi Ulaştırma Uygulama ve Araştırma Merkezi Altyapı Projesi, 2021 - 2022

TORTUM A., Project Supported by Higher Education Institutions, YOLCULUK ÜRETİMİNİN YAPAY SİNİR AĞLARI İLE MODELLENMESİ, 2014 - 2016

TORTUM A., Project Supported by Higher Education Institutions, TÜRKİYE KARAYOLLARINDA YOL GÜVENLİĞİ İÇİN BİR ENDEKS GELİŞTİRME, 2012 - 2013

TORTUM A., Project Supported by Higher Education Institutions, ERZURUM İLİ BÖLGE TRAFİK DENETLEME ŞUBE MÜDÜRLÜĞÜ GÖREV ALANINDAKİ DEVLET YOLLARININ TRAFİK KAZA TAHMİN MODELİNİN OLUŞTURULMASI, 2011 - 2012

## **Scientific Refereeing**

Accident Analysis and Prevention, SCI Journal, December 2022

## **Metrics**

Publication: 95

Citation (WoS): 594

Citation (Scopus): 683

H-Index (WoS): 14

H-Index (Scopus): 14