

## Prof. AYŞE GÜL GÖZEN

### Personal Information

Office Phone: [+90 312 210 5185](tel:+903122105185)

Fax Phone: [+90 312 210 7976](tel:+903122107976)

Email: [agozen@metu.edu.tr](mailto:agozen@metu.edu.tr)

Web: <https://avesis.metu.edu.tr/agozen>

Address: Orta Doğu Teknik Üniversitesi, Biyolojik Bilimler Bölümü, Ankara 06800

### International Researcher IDs

ScholarID: ZtB6No8AAAAJ

ORCID: 0000-0001-5479-051X

Publons / Web Of Science ResearcherID: AAC-3952-2019

ScopusID: 10045936500

Yoksis Researcher ID: 106409

### Education Information

Doctorate, Michigan State University, College of Natural Sciences, Microbiology and Public Health, United States Of America 1987 - 1994

Undergraduate, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, Turkey 1982 - 1986

### Foreign Languages

English, C1 Advanced

### Research Areas

Life Sciences, Microbiology, Bacteriology, Natural Sciences

### Academic Titles / Tasks

Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 2014 - Continues

Associate Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 2008 - 2014

Assistant Professor, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 1995 - 2008

Lecturer PhD, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 1995 - 1995

### Academic and Administrative Experience

Head of Department, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 2019 - Continues

Deputy Head of Department, Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 2014 - 2017

Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 2006 - 2009

Middle East Technical University, Faculty of Arts and Sciences, Department of Biology, 1996 - 1998

## Courses

MICROBIAL PHYSIOLOGY, Undergraduate, 2023 - 2024

BACTERIAL DIVERSITY, Undergraduate, 2023 - 2024, 2022 - 2023, 2018 - 2019

MICROBIAL ECOLOGY, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

MICROBIOLOGY, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

MICROBIOLOGY LABORATORY, Undergraduate, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

MOLECULAR BIOLOGY, Undergraduate, 2020 - 2021, 2019 - 2020

GENERAL BIOLOGY I, Undergraduate, 2018 - 2019

INTRODUCTION TO GENETICS, Undergraduate, 2017 - 2018

GENERAL BIOLOGY II, Undergraduate, 2017 - 2018

## Advising Theses

Gözen A. G., INVESTIGATION OF THE EFFECTS OF LITHIUM ON LOCOMOTOR ACTIVITY, CIRCADIAN RHYTHM, AND LEARNING USING COMPUTATIONAL METHODS IN HONEY BEES, Doctorate, B.Erdem(Student), Continues

GÖZEN A. G., Development of a hydrogel based prostate tumor model for cancer cell migration studies, Postgraduate, D.DEMİRKAYA(Student), 2022

Gözen A. G., İlgü M., Selection of 2'fy rna aptamers against Crimean Congo haemorrhagic fever virus, Postgraduate, F.ZEKİYE(Student), 2022

GÖZEN A. G., Selecting 2-FY RNA aptamers against SARS-CoV-2 particle, Postgraduate, M.ÖZTÜRK(Student), 2021

Son Ç. D., Gözen A. G., Expression of genes encoding fundamental copper homeostasis proteins in copper resistant Escherichia coli mutants, Postgraduate, T.UYANIK(Student), 2019

Son Ç. D., Gözen A. G., Expression of the genes encoding important transport system proteins in silver resistant Escherichia coli mutants, Postgraduate, G.UYANIK(Student), 2019

GÖZEN A. G., Impact of antibiotic induced gut microbiota alteration on cognitive abilities and behaviours of mice, Doctorate, T.CEYLANI(Student), 2018

GÖZEN A. G., Molecular adaptations in cadmium and lead resistant environmental species, Doctorate, E.ŞEYMA(Student), 2017

GÖZEN A. G., Characterization of heavy metal resistant bacteria using infrared spectroscopy together with chemical pattern recognition techniques, Doctorate, R.GURBANOV(Student), 2016

GÖZEN A. G., Comparison of optical measurements for better ni tracking in bacteria, Postgraduate, S.SUNGUR(Student), 2015

GÖZEN A. G., Heavy metal-induced structural and functional changes in clinical and environmental acinetobacter isolates, Doctorate, T.ÖZAKTAŞ(Student), 2015

GÖZEN A. G., Monitoring of cobalt adaptation of environmental bacterial isolates using ATR-FTIR spectroscopy, Postgraduate, M.KARDAŞ(Student), 2014

GÖZEN A. G., Evaluation of biodeterioration in Nemrut Mount Monument and temple of Augustus by using various techniques, Postgraduate, E.SIRT(Student), 2011

GÖZEN A. G., Selective quantification of viable Escherichia coli cells in biosolids upon propidium monoazide treatment by quantitative PCR, Doctorate, B.TAŞKIN(Student), 2011

GÖZEN A. G., Molecular analysis of beta lactamases in clinical Acinetobacter baumannii isolates from intensive care units, Doctorate, A.ÜSKÜDAR(Student), 2011

GÖZEN A. G., A study on cobalt adaptation and memory retention of freshwater bacteria isolates, Postgraduate, G.ÇİTİR(Student), 2010

GÖZEN A. G., Multiple antibiotic resistance of surface mucus dwelling bacterial populations in freshwater fish,

Postgraduate, T.ÖZAKTAŞ(Student), 2007

GÖZEN A. G., Polymerase chain reaction (PCR) for detection of *Borrelia burgdorferi sensu lato*, Postgraduate, Z.DUMAN(Student), 2007

GÖZEN A. G., Identification of *Streptococcus pneumoniae*, *Haemophilus influenzae*, and *Moraxella catarrhalis* from sputum samples of patients with community acquired pneumonia by polymerase chain reaction, Postgraduate, A.ÜSKÜDAR(Student), 2005

GÖZEN A. G., Isolation and partial characterization of aquatic bacteria from lake Eymir, Postgraduate, D.AY(Student), 2001

GÖZEN A. G., Extracellular protease activity of thermophilic bacteria isolated from Turkish soils and hot springs, Postgraduate, F.SEDA(Student), 2000

GÖZEN A. G., Isolation and optimisation of growth conditions of thermophilic bacteria from Turkish soils and hot springs, Postgraduate, Ç.DEVRİM(Student), 1999

GÖZEN A. G., Growth responses of culturable soil microbe populations to different wheat cultivars and carbon sources, Postgraduate, B.KOÇAK(Student), 1998

## Jury Memberships

Award, Üstün Başarılı Genç Bilim İnsanı Ödülleri (TUBA-GEBİP), Middle East Technical University, August, 2020

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

- I. **Effects of lithium on locomotor activity and circadian rhythm of honey bees**  
ERDEM B., ARSLAN O. C., SEVİN S., GÖZEN A. G., Agosto-Rivera J. L., Giray T., ALEMDAR H.  
Scientific Reports, vol.13, no.1, 2023 (SCI-Expanded)
- II. **Discrimination of heavy metal acclimated environmental strains by chemometric analysis of FTIR spectra**  
Kepenek E. S., Severcan M., GÖZEN A. G., SEVERCAN F.  
ECOTOXICOLOGY AND ENVIRONMENTAL SAFETY, vol.202, 2020 (SCI-Expanded)
- III. **Genetic Diversity of OXA-like Genes in Multidrug-Resistant *Acinetobacter baumannii* Strains from ICUs**  
Guclu A. U., GÖZEN A. G.  
CLINICAL LABORATORY, vol.66, no.10, pp.2015-2019, 2020 (SCI-Expanded)
- IV. **Methylation, sugar puckering and Z-form status of DNA from a heavy metal-acclimated freshwater *Gordonia* sp.**  
Gurbanov R., Tuncer S., Mingu S., Severcan F., Gözen A. G.  
JOURNAL OF PHOTOCHEMISTRY AND PHOTOBIOLOGY B-BIOLOGY, vol.198, 2019 (SCI-Expanded)
- V. **Molecular characterization of acutely and gradually heavy metal acclimated aquatic bacteria by FTIR spectroscopy**  
Kepenek E. S., GÖZEN A. G., Severcan F.  
JOURNAL OF BIOPHOTONICS, vol.12, no.5, 2019 (SCI-Expanded)
- VI. **Comparison of microbially induced calcium carbonate precipitation eligibility using *Sporosarcina pasteurii* and *Bacillus licheniformis* on two different sands**  
Sarıççek Y. E., Gurbanov R., Pekcan O., Gözen A. G.  
GEOMICROBIOLOGY JOURNAL, vol.36, pp.42-52, 2019 (SCI-Expanded)
- VII. **Aspects of silver tolerance in bacteria: infrared spectral changes and epigenetic clues**  
Gurbanov R., Ozek N. S., Tunçer S., Severcan F., Gözen A. G.  
JOURNAL OF BIOPHOTONICS, vol.11, 2018 (SCI-Expanded)
- VIII. **Rapid classification of heavy metal-exposed freshwater bacteria by infrared spectroscopy coupled with chemometrics using supervised method**

Gurbanov R., Gözen A. G., Severcan F.

SPECTROCHIMICA ACTA PART A-MOLECULAR AND BIOMOLECULAR SPECTROSCOPY, vol.189, pp.282-290, 2018 (SCI-Expanded)

- IX. **Quick Discrimination of Heavy Metal Resistant Bacterial Populations Using Infrared Spectroscopy Coupled with Chemometrics**  
Gurbanov R., Ozek N. S., Gözen A. G., Severcan F.  
ANALYTICAL CHEMISTRY, vol.87, pp.9653-9661, 2015 (SCI-Expanded)
- X. **FTIR spectroscopy offers hints towards widespread molecular changes in cobalt-acclimated freshwater bacteria**  
Kardaş M., Gözen A. G., Severcan F.  
AQUATIC TOXICOLOGY, vol.155, pp.15-23, 2014 (SCI-Expanded)
- XI. **Comparison of culture and PCR methods in detection of haemophilus influenzae, streptococcus pneumoniae and moraxella catarrhalis in children with otitis media with effusion Efüzyonlu orta kulak iltihabi olan çocuklarda haemophilus influenzae, streptococcus pneumoniae ve moraxella catarrhalis saptanmasında, kültür ve pcr yöntemlerinin karsilastirilmesi**  
Baysallar M., Güçlü A. Ü., Yetiser S., Kiliç A., GÖZEN A. G., Açikel C.  
Turkiye Klinikleri Journal of Medical Sciences, vol.33, no.1, pp.54-58, 2013 (SCI-Expanded)
- XII. **High level multiple antibiotic resistance among fish surface associated bacterial populations in non-aquaculture freshwater environment**  
ÖZAKTAŞ T., TAŞKIN B., GÖZEN A. G.  
WATER RESEARCH, vol.46, no.19, pp.6382-6390, 2012 (SCI-Expanded)
- XIII. **Selective Quantification of Viable Escherichia coli Bacteria in Biosolids by Quantitative PCR with Propidium Monoazide Modification**  
Taskin B., GÖZEN A. G., Duran M.  
APPLIED AND ENVIRONMENTAL MICROBIOLOGY, vol.77, no.13, pp.4329-4335, 2011 (SCI-Expanded)
- XIV. **Synthesis of 2-aziridinyl phosphonates by modified Gabriel-Cromwell reaction and their antibacterial activities**  
Doğan Ö., Babiz H., Gözen A. G., Budak S.  
EUROPEAN JOURNAL OF MEDICINAL CHEMISTRY, vol.46, pp.2485-2489, 2011 (SCI-Expanded)
- XV. **Indirect organogenesis from bud explants of Juniperus communis L.: Effects of genotype, gender, sampling time and growth regulator combinations**  
KOCER Z. A., GÖZEN A. G., ÖNDE S., KAYA Z.  
DENDROBIOLOGY, vol.66, pp.33-40, 2011 (SCI-Expanded)
- XVI. **Use of Fourier transform infrared spectroscopy for rapid comparative analysis of Bacillus and Micrococcus isolates**  
Garip S., Gozen A. G., Severcan F.  
FOOD CHEMISTRY, vol.113, no.4, pp.1301-1307, 2009 (SCI-Expanded)
- XVII. **Impact of food concentration on diel vertical migration behaviour of Daphnia pulex under fish predation risk**  
Beklioğlu M., Gözen A. G., Yildirim F., Zorlu P., Önde S.  
HYDROBIOLOGIA, vol.614, pp.321-327, 2008 (SCI-Expanded)
- XVIII. **Fish and mucus-dwelling bacteria interact to produce a kairomone that induces diel vertical migration in Daphnia**  
Beklioglu M., Telli M., Gozen A. G.  
FRESHWATER BIOLOGY, vol.51, pp.2200-2206, 2006 (SCI-Expanded)
- XIX. **Role of planktonic bacteria in biodegradation of fish-exuded kairomone in laboratory bioassays of diel vertical migration**  
Beklioglu M., Cetin A. G., Zorlu P., Ay-Zog D.  
ARCHIV FÜR HYDROBIOLOGIE, vol.165, pp.89-104, 2006 (SCI-Expanded)
- XX. **Polymerase chain reaction vs. conventional culture in detection of bacterial pneumonia agents**  
Guclu A., Baysallar M., Gozen A. G., Kilic A., Balkan A., Doganci L.

ANNALS OF MICROBIOLOGY, vol.55, no.4, pp.313-316, 2005 (SCI-Expanded)

**XXI. Development of biotechnology education in Turkey**

Severcan F., Ozan A. G., Haris P.

BIOCHEMICAL EDUCATION, vol.28, no.1, pp.36-38, 2000 (SCI-Expanded)

**XXII. Persistence of isoflavones formononetin and biochanin A in soil and their effects on soil microbe populations**

Ozan A. G., Safir G., Nair M.

JOURNAL OF CHEMICAL ECOLOGY, vol.23, no.2, pp.247-258, 1997 (SCI-Expanded)

**XXIII. CHARACTERIZATION OF UREASE FROM SPOROSARCINA-UREAE**

Mccoy D., Cetin A. G., Hausinger R.

ARCHIVES OF MICROBIOLOGY, vol.157, pp.411-416, 1992 (SCI-Expanded)

## Articles Published in Other Journals

**I. The effects of repeated antibiotic administration to juvenile BALB/c mice on the microbiota status and animal behavior at the adult age**

Ceylani T., Jakubowska-Dogru E., Gurbanov R., Teker H. T., Gözen A. G.

HELIYON, vol.4, 2018 (ESCI)

## Refereed Congress / Symposium Publications in Proceedings

**I. Applications of Microbially Induced Calcium Carbonate Precipitation on Non-Woven Geotextiles**

Duman E., Sariçiçek Y. E., Pekcan O., Gurbanov R., Gözen A. G.

7th EuroGeo Conference, Warszawa, Poland, 4 - 07 September 2022, vol.1260, no.12024, pp.1-8

**II. Development Of Direct Shear And Triaxial Test Procedures On Microbially Treated Sand Specimens**

Tunalı M., Duman E., SARIÇİÇEK Y. E., PEKCAN O., GURBANOV R., GÖZEN A. G.

1st Mediterranean Young Geotechnical Engineers Conference, Muğla/Bodrum, Turkey, 23 - 24 September 2019, pp.73-80

**III. CONFORMATIONAL CHANGES AND METHYLATION PROFILE IN DNA OF FRESHWATER BACTERIA ACCLIMATED TO TOXIC HEAVY METAL ENVIRONMENTS**

GURBANOV R., SARA M., TUNÇER S., CANER A., SEVERCAN F., GÖZEN A. G.

10th BalkanCongress of Microbiology – Microbiologia Balkanica 2017, SOFYA, Bulgaria, 16 - 18 November 2017

**IV. Thermal Study of Heavy Metal-Tolerant Gordonia, Acinetobacter and Microbacterium Species for Investigation of Bioremediation**

GURBANOV R., GÖZEN A. G., SEVERCAN F.

ISEEP-2017 VIII. INTERNATIONAL SYMPOSIUM ONECOLOGY AND ENVIRONMENTAL PROBLEMS, Çanakkale, Turkey, 4 - 07 October 2017, pp.301

**V. DNA Methylation Patterns of Cadmium, Lead and Silver Tolerant Bacteria Isolated from the Surface Mucus of Freshwater Fish**

GURBANOV R., TUNÇER S., GÖZEN A. G., SEVERCAN F.

ISEEP-2017 VIII. INTERNATIONAL SYMPOSIUM ONECOLOGY AND ENVIRONMENTAL PROBLEMS, Çanakkale, Turkey, 4 - 07 October 2017, pp.96

**VI. BOWEL-BRAIN AXIS AFFECTED BY CEFOPERAZONE AND AMPICILLIN TREATMENT IN MICE**

CEYLANI T., GURBANOV R., TEKER H. T., JACUBOWSKA DOĞRU E., GÖZEN A. G.

VI. International Congress of Molecular Medicine Molecular Medicine from the update still the future, İstanbul, Turkey, 22 - 25 May 2017, pp.71

**VII. BRAIN BIOCHEMISTRY AND GUT MICROBIOTA (GM) INFLUENCED BY ANTIBIOTIC TREATMENT DURING ADOLESCENCE PERIOD OF MICE**

CEYLANI T., GURBANOV R., TEKER H. T., JACUBOWSKA DOĞRU E., GÖZEN A. G.

- VI. International Congress of Molecular Medicine Molecular medicine from the updates till the future, İstanbul, Turkey, 22 - 25 May 2017, pp.152
- VIII. **IR coupled chemometrics in environmental industrial and forensic studies**  
GURBANOV R., GÖZEN A. G., SEVERCAN F.  
The 2nd International Congress of Forensic Toxicology– Industrial and Environmental Toxicology, Ankara, Turkey, 26 - 30 May 2016
- IX. **THE CONTRIBUTION OF TRADITIONAL TECHNIQUES TO NEW TECHNOLOGY TO EVALUATE THE POTENTIAL RISK OF STONE DETERIORATION BY MICROORGANISMS**  
Sirt Çıplak E., Saltık E. N., Gözen A. G.  
SCIENCE AND ART: A FUTURE FOR STONE, PROCEEDINGS OF THE 13TH INTERNATIONAL CONGRESS ON THE DETERIORATION AND CONSERVATION OF STONE, Edinburgh, England, 6 - 10 September 2016, pp.57-65
- X. **IR coupled pattern recognition techniques for the classification of toxic metal tolerant bacteria**  
GURBANOV R., ŞİMŞEK ÖZEK N., GÖZEN A. G., SEVERCAN F.  
MBD2015 - IV. International Congress of the Molecular Biology Association of Turkey, Ankara, Turkey, 27 - 29 November 2015, pp.189
- XI. **An ATR FTIR Spectroscopic Approach to Elucidate Biochemical Mechanisms in Heavy Metal Resistant Escherichia coli**  
GURBANOV R., ŞİMŞEK ÖZEK N., GÖZEN A. G., SEVERCAN F.  
115th General Meeting of the American Society for Microbiology (ASM2015), NEW ORLEANS, United States Of America, 30 May - 02 June 2015, pp.136
- XII. **Detection of Silver Associated Gross Molecular Changes in Acinetobacter**  
ÖZAKTAŞ T., GÖZEN A. G., SEVERCAN F.  
115th General Meeting of the American Society for Microbiology (ASM2015), New Orleans, United States Of America, 30 May - 02 June 2015, pp.192
- XIII. **The comparison of macromolecular changes in different acinetobacter isolates upon neomycin exposure**  
Kanat T., GÖZEN A. G., Severcan F.  
FEBS EMBO 2014 Conference, Paris, France, 30 August - 04 September 2014, vol.281, pp.671
- XIV. **Basal nutrient and hormonal requirements for direct organogenesis of Cedrus libani A. Rich**  
Hosseyini N., Ozan A. G., Kaya Z.  
IXth International Congress of the International-Association-of-Plant-Tissue-Culture-and-Biotechnology, JERUSALEM, Israel, 14 - 19 June 1998, vol.36, pp.53-56

## Supported Projects

GÖZEN A. G., UYANIK G., UYANIK T., ÖNDE S., Project Supported by Higher Education Institutions, Gümüşe Dirençli Escherichia coli Mutantlarında Transport Protein gen ifadelerinin RT-qPCR ile saptanması, 2018 - 2020

PEKCAN O., TUNALI M., YALÇIN Y., GÖZEN A. G., Project Supported by Higher Education Institutions, ÜREOLİTİK BAKTERİLER KULLANILARAK İYİLEŞTİRİLEN KUMLU ZEMİNLERİN MÜHENDİSLİK ÖZELLİKLERİNİN İNCELENMESİ, 2017 - 2019

GÖZEN A. G., Gurbanov R., Project Supported by Higher Education Institutions, Yüksek Metal Yoğunluklarına Alıştırılmış Çevresel Bakteri İzolatlarının Nükleik Asitlerinde Oluşan Değişimlerin Kızılötesi Spektroskopisi ve Gözetimsiz Örüntü Tanıma Teknikleri ile Araştırılması, 2017 - 2017

GÖZEN A. G., BEKLİOĞLU M., KEPENEK E. Ş., İZGÜ K. F., GÜNDÜZ U., GÜRSEL M., DOĞAN M., ÖZCENGİZ G., BİLGİN C. C., ÖNDE S., Project Supported by Higher Education Institutions, Kurşun ve Kadmiyum Ağır Metallerinin Yüksek Derişimlerine alıştırılmış Çevresel Bakterilerde Maruziyet Altındaki Fizyolojik Uyumlanmanın Moleküler Kökenleri, 2016 - 2016

GÖZEN A. G., BEKLİOĞLU M., İZGÜ K. F., GÜRSEL M., DOĞAN M., ÖZCENGİZ G., BİLGİN C. C., ÖNDE S., Project Supported by Higher Education Institutions, Tatlısu Acinetobacter türlerinin antibiyotik maruziyeti altında sergiledikleri moleküler değişimlerin belirlenmesi, 2015 - 2015

GÖZEN A. G., Project Supported by Higher Education Institutions, FEN BİLİMLERİ ENSTİTÜSÜ/LİSANSÜSTÜ TEZ PROJESİ, 2014 - 2014

GÖZEN A. G., ÖKTEM H. A., BUCAK T., COPPENS J. E. P., KALVENAS J. E., İZGÜ K. F., BEKLİOĞLU M., BİRAND ÖZSOY A. C., GÜNDÜZ U., GÜRSEL M., et al., Project Supported by Higher Education Institutions, Sucul biofilm bakterilerinin arsenik, nikel ve kadmiyum dirençlerinin belirlenmesi ve moleküler karakterizasyonu, 2013 - 2014

GÖZEN A. G., KEPENEK E. Ş., Project Supported by Higher Education Institutions, BREVUNDIMONAS , KOCURIA , MICROBACTERIUM,GORDONIA VE PSEUDOMONAS BAKTERİLERİNDE KURŞUN VE CİVA DİRENCİNİN ARAŞTIRILMASI, 2013 - 2013

GÖZEN A. G., GURBANOV R., Project Supported by Higher Education Institutions, LAKTİK ASİT BAKTERİLERİNİN RAF ÖMRÜNÜN UZATILMASI ÇALIŞMALARI, 2013 - 2013

GÖZEN A. G., SUNGUR S., Project Supported by Higher Education Institutions, BREVUNDIMONAS SP., KOCURIA SP, MICROBACTERIUM OXYDANS, GORDONIA SP. VE P. ANGULISEPTICA BAKTERİ SUŞLARINDA NİKEL DİRENCİNİN ARAŞTIRILMASI, 2013 - 2013

GÖZEN A. G., Project Supported by Higher Education Institutions, Aziridinil Fosfatların Organik Sentezi Ve Antimikrobyal özelliklerinin Belirlenmesi, 2011 - 2013

GÖZEN A. G., Project Supported by Higher Education Institutions, Tatlı Su Balıklarının Yüzey Mukusunda Yaşayan Bakterilerin Çoklu Antibiyotik Dirençlerinin Genetik Analizi, 2012 - 2012

## Scientific Refereeing

Project Supported by Higher Education Institutions, BAP Infrastructure, Middle East Technical University, Turkey, November 2023

Project Supported by Higher Education Institutions, BAP Infrastructure, Ataturk University, Turkey, May 2023

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, May 2023

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, April 2023

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, February 2023

Project Supported by Higher Education Institutions, BAP Other, Middle East Technical University, Turkey, January 2023

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, November 2022

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, November 2022

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, September 2022

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, September 2022

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, September 2022

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, April 2022

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, March 2022

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, February 2022

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, November 2021

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, November 2021

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, September 2021

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Middle East Technical University, Turkey, May 2021

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Middle East Technical University, Turkey, May 2021

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, Middle East Technical University, Turkey, May 2021

TUBITAK Project, 1001 - Program for Supporting Scientific and Technological Research Projects, SBAG - SAĞLIK BİLİMLERİ ARAŞTIRMA DESTEK GRUBU, Turkey, May 2021

TUBITAK Project, 2236 - Program for Supporting International Researchers, Middle East Technical University, Turkey, March 2021

TUBITAK Project, 2236 - Program for Supporting International Researchers, Fellowship Program of Science Fellowships and Grant Programs Department of TÜBİTAK, Turkey, March 2021

TUBITAK Project, 2236 - Program for Supporting International Researchers, Middle East Technical University, Turkey, March 2021

TUBITAK Project, 2236 - Program for Supporting International Researchers, Middle East Technical University, Turkey, March 2021

TUBITAK Project, 1002 - Quick Support Program, Middle East Technical University, Turkey, December 2020

Project Supported by Higher Education Institutions, BAP Research Project, Istanbul University, Turkey, December 2020

Project Supported by Higher Education Institutions, BAP Guided, Ege University, Turkey, December 2020

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, November 2020

Project Supported by Higher Education Institutions, BAP MSc, Middle East Technical University, Turkey, October 2020

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, August 2020

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, August 2020

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, August 2020

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, August 2020

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, August 2020

Project Supported by Higher Education Institutions, BAP Research Project, Istanbul University, Turkey, April 2020

Project Supported by Higher Education Institutions, BAP Research Project, Istanbul University, Turkey, December 2019

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, November 2019

Project Supported by Higher Education Institutions, BAP Research Project, Istanbul University, Turkey, October 2019

Project Supported by Higher Education Institutions, BAP MSc, Middle East Technical University, Turkey, August 2019

Project Supported by Higher Education Institutions, BAP MSc, Middle East Technical University, Turkey, August 2019

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, August 2019

Project Supported by Higher Education Institutions, BAP MSc, Middle East Technical University, Turkey, August 2019

Project Supported by Higher Education Institutions, BAP PhD, Middle East Technical University, Turkey, August 2019

Project Supported by Higher Education Institutions, BAP Other, Middle East Technical University, Turkey, August 2019

Project Supported by Higher Education Institutions, BAP Research Project, Istanbul University, Turkey, May 2019

Project Supported by Higher Education Institutions, BAP Research Project, Istanbul University, Turkey, February 2019

Project Supported by Higher Education Institutions, BAP Research Project, Middle East Technical University, Turkey, November 2018

Project Supported by Higher Education Institutions, BAP Research Project, Istanbul University, Turkey, October 2018

Project Supported by Higher Education Institutions, BAP Research Project, Istanbul University, Turkey, June 2018



## **Metrics**

Publication: 40

Citation (WoS): 594

Citation (Scopus): 622

H-Index (WoS): 16

H-Index (Scopus): 16

## **Invited Talks**

Yapay Zeka Teknolojilerine Giriş Eđitici Eđitimi, Seminar, Zihin Haritaları Derneđi, Turkey, June 2021

## **Non Academic Experience**

Michigan State University