

## Asst. Prof. Yusuf Burak BOZKURT



### Personal Information

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### Education Information

Doctorate, Ataturk University, Fen Bilimleri Enstitüsü, Makine Mühendisliği Anabilim Dalı, Turkey 2016 - 2021

Postgraduate, Ataturk University, Fen Bilimleri Enstitüsü, Makine Mühendisliği Anabilim Dalı, Turkey 2013 - 2016

Undergraduate, Ataturk University, Mühendislik Fakültesi, Makine Mühendisliği, Turkey 2009 - 2013

### Dissertations

Doctorate, Seramik kaplanmış AZ31 alaşımının tribolojik, korozyon, tribokorozyon performansı ve biyoyumluluk davranışının incelenmesi, Ataturk University, Fen Bilimleri Enstitüsü, 2021

Postgraduate, Spinal fisatör imalatı: İnovatif tasarım ve biyomekanik analiz, Ataturk University, Fen Bilimleri Enstitüsü, 2016

### Research Areas

Mechanical Engineering, Material, Biomechanics, Engineering and Technology

### Courses

İmal Usulleri - I, Undergraduate, 2023 - 2024, 2022 - 2023

Biyomalzemelerde Tribokorozyon, Postgraduate, 2023 - 2024, 2022 - 2023

Mekanik Metalurji - II, Postgraduate, 2023 - 2024

Mekanik Metalurji - I, Postgraduate, 2023 - 2024

Teknik Resim, Undergraduate, 2023 - 2024

### Advising Theses

Çelik A., Bozkurt Y. B., Biyomimetik perspektifle işlevselleştirilmiş biyoseramik kaplı Ti6Al4V alaşımının aşınma ve biyokorozyon özelliklerinin incelenmesi, Doctorate, B.ATİK(Student), Continues

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

- I. **Enhancing high cycle fatigue performance of plasma nitrided AISI 4140 steel by post-aging treatment and direct current magnetic field**  
Yetim A., KOVACI H., Tekdir H., SEÇER KAVASOĞLU Y., BOZKURT Y. B., ÇELİK A.  
Materials Today Communications, vol.40, 2024 (SCI-Expanded)
- II. **Comparative investigation of structural, morphological, mechanical, tribological and electrochemical properties of TiO<sub>2</sub> films formed on Cp-Ti, Ti6Al4V and Ti45Nb alloys**  
Kovacı H., Şenel K., Acar M. T., Bozkurt Y. B., Çelik A.  
Surface and Coatings Technology, vol.487, 2024 (SCI-Expanded)
- III. **Analysis of electrochemical corrosion performance of 316L stainless steel fabricated and textured by selective laser melting**  
BOZKURT Y. B., SEÇER KAVASOĞLU Y., ATİK B., KOVACI H., ÇELİK A.  
Journal of Manufacturing Processes, vol.119, pp.293-304, 2024 (SCI-Expanded)
- IV. **Pitting corrosion performance of plasma oxidized Cp-Ti and effects of fabrication methods**  
ATİK B., BOZKURT Y. B., KAVASOĞLU Y., KOVACI H., ÇELİK A.  
Surface and Coatings Technology, vol.478, 2024 (SCI-Expanded)
- V. **Enhanced wear resistance and surface properties of oxide film coating on biocompatible Ti45Nb alloy by anodization method**  
Şenaslan F., Taşdemir M., ÇELİK A., BOZKURT Y. B.  
Surface and Coatings Technology, vol.469, 2023 (SCI-Expanded)
- VI. **Comparison study of corrosion behavior for chitosan coated Ti6Al4V alloy produced by selective laser melting and forging**  
BOZKURT Y. B., KAVASOĞLU Y., ATİK B., KOVACI H., UZUN Y., ÇELİK A.  
PROGRESS IN ORGANIC COATINGS, vol.182, 2023 (SCI-Expanded)
- VII. **Wear and corrosion properties of CP-titanium coated with Chitin-Ceramic nanocomposites**  
ÇELİK A., ATİK B., UZUN Y., BOZKURT Y. B., KOVACI H.  
MATERIALS CHEMISTRY AND PHYSICS, vol.303, 2023 (SCI-Expanded)
- VIII. **A comparative study of the bio-tribocorrosion behaviour of PEO coated AZ31 magnesium alloy in SBF: Assessing the effect of B, Cu and Zn doping**  
VANGÖLÜ S. Y., BOZKURT Y. B., KOVACI H., ÇELİK A.  
CERAMICS INTERNATIONAL, vol.49, no.11, pp.19513-19522, 2023 (SCI-Expanded)
- IX. **Wear and tribocorrosion behavior of UV curable coated CP-Ti**  
ASLAN ÇAKIR M., Yetim T., BOZKURT Y. B., KOVACI H., ÇELİK A.  
Materials Letters, vol.331, 2023 (SCI-Expanded)
- X. **Tailoring biodegradation rate of AZ31 magnesium alloy**  
BOZKURT Y. B., ÇELİK A.  
ELECTROCHIMICA ACTA, vol.435, 2022 (SCI-Expanded)
- XI. **Improvement of tribological performance of AZ31 biodegradable alloy by TiN-based PVD coatings**  
celik A., BOZKURT Y. B.  
Tribology International, vol.173, 2022 (SCI-Expanded)
- XII. **Tribocorrosion properties and mechanism of a shot peened AISI 4140 low-alloy steel**  
BOZKURT Y. B., KOVACI H., Yetim A., ÇELİK A.  
Surface and Coatings Technology, vol.440, 2022 (SCI-Expanded)
- XIII. **Influences of Ti, Al and V metal doping on the structural, mechanical and tribological properties of DLC films**  
Yetim A. F., Kovaci H., Kasapoglu A. E., Bozkurt Y. B., Celik A.  
DIAMOND AND RELATED MATERIALS, vol.120, 2021 (SCI-Expanded)
- XIV. **Corrosion and tribocorrosion properties of duplex surface treatments consisting of plasma nitriding and DLC coating**  
Kovaci H., BOZKURT Y. B., Yetim A. F., Baran O., Celik A.

TRIBOLOGY INTERNATIONAL, vol.156, 2021 (SCI-Expanded)

- XV. **The effect of surface plastic deformation produced by shot peening on corrosion behavior of a low-alloy steel**

Kovacı H., Bozkurt Y. B., Yetim A., Aslan M., Çelik A.

SURFACE & COATINGS TECHNOLOGY, vol.360, pp.78-86, 2019 (SCI-Expanded)

- XVI. **The friction and wear performance of DLC coatings deposited on plasma nitrided AISI 4140 steel by magnetron sputtering under air and vacuum conditions**

Kovacı H., Baran Ö., Yetim A. F., Bozkurt Y. B., Kara L., Çelik A.

SURFACE & COATINGS TECHNOLOGY, vol.349, pp.969-979, 2018 (SCI-Expanded)

- XVII. **A NOVEL METHOD FOR IMPROVING PLASMA NITRIDING EFFICIENCY: PRE-MAGNETIZATION BY DC MAGNETIC FIELD**

KOVACI H., Yetim A. F., BOZKURT Y. B., ÇELİK A.

SURFACE REVIEW AND LETTERS, vol.24, no.1, 2017 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Investigation of the Effect of Bioactive Glass Coating on the Corrosion Behavior of Pre-treated Ti6Al4V Alloy**

Tüzemen Ş. M., Bozkurt Y. B., Atik B., Uzun Y., Çelik A.

Türk Doğa ve Fen Dergisi, no.1, pp.87-90, 2024 (Peer-Reviewed Journal)

- II. **Electrochemical Impedance Spectroscopy Analysis of 45S5 Bioglass Coating on After Oxidation of CoCrW Alloy**

Tüzemen Ş. M., Bozkurt Y. B., Atik B., Uzun Y., Çelik A.

Türk Doğa ve Fen Dergisi, no.1, pp.82-85, 2024 (Peer-Reviewed Journal)

- III. **THE EFFECT OF WEAR MECHANISM FOR PLASMA OXIDISED CP TI AND ITS ALLOYS ON TRIBOCORROSION PERFORMANCE**

Seçer Kvasoğlu Y., Bozkurt Y. B., Kovacı H., Yetim A. F., Çelik A.

Journal of Selcuk-Technic, no.Özel Sayı, pp.28-38, 2020 (Conference Book)

- IV. **THE BIOMECHANICAL ANALYSIS FOR BIODEGRADABLE PURE MAGNESIUM BONE SCREWS UNDER THREE POINT BENDING AND TORSIONAL TEST**

Atik B., Bozkurt Y. B., Seçer Kvasoğlu Y., Uzun Y., Kovacı H., Çelik A.

Journal of Selcuk-Technic, no.Özel Sayı, pp.39-46, 2020 (Conference Book)

## Refereed Congress / Symposium Publications in Proceedings

- I. **Improving the Bio-tribocorrosion Performance of Beta-type Ti Alloy Using Electrophoretic Coating Method**

Tüzemen Ş. M., Atik B., Seçer Kvasoğlu Y., Erdoğan Ö., Bozkurt Y. B., Çelik A.

5th International Conference on Advanced Engineering Technologies (ICADET 2024), Bayburt, Turkey, 25 - 27 September 2024, pp.994

- II. **A Study on Tailoring the Hydrophilicity Capacity of CP-Mg the Correlation of Bio-Corrosion Character and Surface Energy**

Atik B., Tüzemen Ş. M., Erdoğan Ö., Seçer Kvasoğlu Y., Bozkurt Y. B., Çelik A.

5th International Conference on Advanced Engineering Technologies (ICADET 2024), Bayburt, Turkey, 25 - 27 September 2024, pp.839

- III. **EFFECT OF PH ON BIODEGRADABILITY FOR POLYCAPROLACTONE PRODUCED BY MEW**

Bozkurt Y. B., Atik B., Kvasoğlu Y. S., Kovacı H., Uzun Y., Çelik A.

MUNZUR 6. ULUSLARARASI UYGULAMALI BİLİMLER KONGRESİ, Tunceli, Turkey, 24 - 26 May 2024, pp.282-288

- IV. **THE INFLUENCE OF DESIGN PATTERNS ON THE MECHANICAL PROPERTIES OF MEW-PRODUCED PCL**

## **SAMPLES**

Bozkurt Y. B., Seçer Kavasoglu Y., Atik B., Kovacı H., Uzun Y., Çelik A.

MUNZUR 6. ULUSLARARASI UYGULAMALI BİLİMLER KONGRESİ, Tunceli, Turkey, 24 - 26 May 2024, pp.289-296

- V. **THE ELECTROCHEMICAL CORROSION PERFORMANCE OF COATED BIODEGRADABLE PURE MAGNESIUM BY MELT ELECTROWRITING**  
Bozkurt Y. B., Atik B., Seçer Kavasoglu Y., Kovacı H., Uzun Y., Çelik A.  
17TH INTERNATIONAL ISTANBUL SCIENTIFIC RESEARCH CONGRESS ON LIFE, ENGINEERING, ARCHITECTURE, AND MATHEMATICAL SCIENCES, İstanbul, Turkey, 28 - 30 April 2024, pp.534-542
- VI. **IMPROVEMENT OF EIS PERFORMANCE FOR Ti6Al4V ALLOY WITH MEW-PRODUCED PLA/HA COMPOSITE COATING**  
Bozkurt Y. B., Seçer Kavasoglu Y., Atik B., Kovacı H., Uzun Y., Çelik A.  
17th INTERNATIONAL İSTANBUL SCIENTIFIC RESEARCH CONGRESS ON LIFE, ENGINEERING, ARCHITECTURE, AND MATHEMATICAL SCIENCES, İstanbul, Turkey, 28 - 30 April 2024, pp.605-615
- VII. **Biomimetic Approach: Innovative Design Solutions from Structures Inspired by Nature**  
Çelik A., Seçer Kavasoglu Y., Atik B., Kovacı H., Bozkurt Y. B., Uzun Y., Aslan Çakır M., Tüzemen Ş. M.  
7th International Conference on Advances in Natural and Applied Sciences (ICANAS 2024), Antalya, Turkey, 17 April - 20 May 2024, pp.1
- VIII. **Enhancement of Corrosion Resistance for Biodegradable Pure Magnesium by Anodization Processes**  
Tüzemen Ş. M., Bozkurt Y. B., Kovacı H., Halıcı Z., Çelik A.  
7th International Conference on Advances in Natural and Applied Sciences (ICANAS 2024), Antalya, Turkey, 17 April 2024
- IX. **Examination on the Tribological Properties of hBN Doped Anodized Pure Magnesium**  
Tüzemen Ş. M., Bozkurt Y. B., Uzun Y., Kovacı H., Çelik A.  
7th International Conference on Advances in Natural and Applied Sciences (ICANAS 2024), Antalya, Turkey, 17 April 2024
- X. **Investigation of the Effect of Bioactive Glass Coating on the Corrosion Behavior of Pre-treated Ti6Al4V Alloy**  
Tüzemen Ş. M., Bozkurt Y. B., Atik B., Uzun Y., Çelik A.  
6 th INTERNATIONAL CONFERENCE ON LIFE AND ENGINEERING SCIENCES ANTALYA, TURKEY ICOLES 2023, Antalya, Turkey, 2 - 05 November 2023, pp.9
- XI. **Electrochemical Impedance Spectroscopy Analysis of 45S5 Bioglass Coating on After Oxidation of CoCrW Alloy**  
Tüzemen Ş. M., Bozkurt Y. B., Atik B., Uzun Y., Çelik A.  
6 th INTERNATIONAL CONFERENCE ON LIFE AND ENGINEERING SCIENCES ANTALYA, TURKEY ICOLES 2023, Antalya, Turkey, 2 - 05 November 2023, pp.10
- XII. **Comparison of Electrochemical Corrosion Performances Using Variable Scan Rates on Surfaces with Different Layer Thicknesses**  
Bozkurt Y. B., Atik B., Kovacı H., Yetim T., Çelik A.  
International Conference on Advances in Engineering, Architecture, Science and Technology, Erzurum, Turkey, 15 - 17 December 2021, pp.660
- XIII. **Improving Tribological Performance With Oxidation Process For Boronized Ti6Al4V Alloys**  
Bozkurt Y. B., Seçer Kavasoglu Y., Kovacı H., Uzun Y., Çelik A.  
6th International Conference on Material Science and Technology in Cappadocia, Nevşehir, Turkey, 26 - 28 November 2021, pp.264-268
- XIV. **Analysis Of Flow Accelerated Electrochemical Corrosion Properties Of Different Metallic Biomaterials**  
Bozkurt Y. B., Atik B., Kovacı H., Uzun Y., Çelik A.  
6th International Conference on Material Science and Technology in Cappadocia, Nevşehir, Turkey, 26 - 28 November 2021, pp.259-263
- XV. **Investigation Of Tribocorrosion Behaviour Of 316L Coated H BN With Electrophoretic Deposition Technique**

- Bozkurt Y. B., Atik B., Kovacı H., Yetim A. F., Çelik A.  
9th International Conference on Advanced Technologies, İstanbul, Turkey, 10 - 12 August 2020, pp.1-4
- XVI. **Dry Wear Behaviour of Bio-ceramic Coated cp-Ti by Electrophoretic Deposition**  
Bozkurt Y. B., Atik B., Kovacı H., Yetim A. F., Çelik A.  
5th International Mediterranean Science and Engineering Congress, Antalya, Turkey, 21 - 23 October 2020, pp.580
- XVII. **Improving Electrochemical Corrosion Properties of Ti45Nb by Composite Coating**  
ATİK B., BOZKURT Y. B., KOVACI H., UZUN Y., ÇELİK A.  
5th International Mediterranean Science and Engineering Congress (IMSEC 2020), Alanya, Turkey, 21 - 23 October 2020, pp.654-657
- XVIII. **Dip Coated of Al2O3 and Graphene Thin Films on 316L Stainless Steel: Tribocorrosion Behaviours**  
Bozkurt Y. B., Seçer Kavasoglu Y., Kovacı H., Yetim A. F., Çelik A.  
5th International Mediterranean Science and Engineering Congress, Antalya, Turkey, 21 - 23 October 2020, pp.575-579
- XIX. **The Influence of Different Surface Treatment on The Behaviour of Fatigue Crack Growth of AISI 4140 Under Two-stage Block Loading**  
Bozkurt Y. B., Kovacı H., Yetim A. F., Baran Acimert Ö., Çelik A.  
5TH International Conference on Advances in Mechanical Engineering, İstanbul, Turkey, 17 - 19 December 2019, pp.2435
- XX. **The Investigation of Pull Out Performance For Pure Magnesium Bone Screws in Biodegradation Perspective**  
Atik B., Atila A., Bozkurt Y. B., Kovacı H., Çelik A.  
5TH International Conference on Advances in Mechanical Engineering, İstanbul, Turkey, 17 - 19 December 2019, pp.2437
- XXI. **Biyouyumluluk Perspektifinde Östenitik Paslanmaz Çelik, Beta Titanyum ve Alfa+beta Titanyum Alaşımlarının Tribokorozyon Performanslarının İncelenmesi**  
Atik B., Bozkurt Y. B., Kovacı H., Yetim T., Çelik A.  
International Congress of Science, Mathematics and Engineering, İzmir, Turkey, 8 - 10 November 2019, pp.17
- XXII. **Spinal İmplant Grupları İçin İnovatif Test Metodu: Tekrarlı Hareket Altında Tutunma Performansının İncelenmesi**  
Seçer Kavasoglu Y., Bozkurt Y. B., Kovacı H., Yetim A. F., Çelik A.  
International Congress of Science, Mathematics and Engineering, İzmir, Turkey, 8 - 10 November 2019, pp.19
- XXIII. **Termokimyasal yüzey işlemleri uygulanmış AISI 4140 çeliğinin farklı ortamlardaki elektrokimyasal performansının değerlendirilmesi**  
Tüzemen Ş. M., Bozkurt Y. B., Kovacı H., Yetim A. F., Çelik A.  
Uluslararası Fen, Matematik ve Mühendislik Kongresi, İzmir, Turkey, 8 - 10 November 2019, pp.98
- XXIV. **Effects of PLA, UHMWPE and bone cement materials on the biomechanical pull-out performance of metallic bone screws**  
Bozkurt Y. B., Kovacı H., Yetim A. F., Çelik A.  
International 9. Biomechanics Congress, Eskişehir, Turkey, 19 - 22 September 2018, pp.79
- XXV. **Production technologies and biomaterials used on modern spinal instrumentation**  
Bozkurt Y. B., Kovacı H., Yetim A. F., Çelik A.  
International 9. Biomechanics Congress, Eskişehir, Turkey, 19 - 22 September 2018, pp.96-97
- XXVI. **Yapay Tükürük Sıvısında Plazma Oksitlenmiş CoCrMo Alaşımının Elektrokimyasal Korozyon Davranışı**  
Aslan Çakır M., Bozkurt Y. B., Yetim A. F., Yetim T., Çelik A.  
II. International Conference on Advanced Engineering Technologies, Bayburt, Turkey, 21 - 23 September 2017, pp.1456
- XXVII. **Dubleks Kaplı AISI 4140 Çeliğinin Elektrokimyasal Özelliklerinin Belirlenmesi**  
Kovacı H., Bozkurt Y. B., Aslan Çakır M., Yetim A. F., Çelik A.  
II. International Conference on Advanced Engineering Technologies, Bayburt, Turkey, 21 - 23 September 2017, pp.1462
- XXVIII. **Finite element analysis of biomechanical performance of spinal rods in different geometries**

Bozkurt Y. B., Aslan Çakır M., Kovacı H., Yetim A. F., Çelik A.

International Conference on Advances and Innovations in Engineering-ICAIE, Elazığ, Turkey, 10 - 12 May 2017, pp.25

## Supported Projects

ÇELİK A., BOZKURT Y. B., ATİK B., Project Supported by Higher Education Institutions, Biyomimetik perspektifle işlevselleştirilmiş biyoseramik kaplı Ti6Al4V alaşımının aşınma ve biyokorozyon özelliklerinin incelenmesi, 2022 - Continues

BİRDAL O., HALICI Z., KOVACI H., BOZKURT Y. B., TOPATAN E., TAVACI ÖZÇELİK A., TOPATAN A. S., ÖZÇELİK C., ÖZCANLI F., Project Supported by Higher Education Institutions, Borofen içeren poliüretan esash vazodilatörantitrombotik ilaçlı ve ilaçsız kateter kaplamaları, 2024 - 2024

BİRDAL O., ULAŞ N., KOVACI H., ÖZÇELİK C., TOPATAN E., ÖZCANLI F., HALICI Z., BOZKURT Y. B., TOPATAN A. S., TAVACI ÖZÇELİK A., Project Supported by Higher Education Institutions, Grafen borofen ve biyoglass 45s ve 63s lar kullanılarak poliüretan esash vazodilatörantitrombotik ilaçlı ve ilaçsız kateter kaplamaları, 2024 - 2024

BİRDAL O., KOVACI H., TOPATAN A. S., TOPATAN E., TAVACI ÖZÇELİK A., BOZKURT Y. B., HALICI Z., ÖZCANLI F., ÖZÇELİK C., Project Supported by Higher Education Institutions, Grafen ve borofen içeren poliüretan esash vazodilatörantitrombotik ilaçlı ve ilaçsız kateter kaplamaları, 2024 - 2024

GÖKALP K., AY E., BOZKURT Y. B., DURMAZ H., Project Supported by Higher Education Institutions, Hasta Tespit Yatağı, 2023 - 2024

## Patent

Gökalp K., Ay E., Durmaz H., Bozkurt Y. B., HASTA TESPİT YATAĞI, Patent, CHAPTER A Human Needs, The Invention Recourse Number: 111 , Standard Registration, 2024

Bozkurt Y. B., Çelik A., Kovacı H., Alsaran A., DİNAMİK SPİNAL İMPLANT SİSTEMİ, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, The Invention Recourse Number: 2015/17523 , Standard Registration, 2015

## Scientific Refreeing

SURFACE AND COATINGS TECHNOLOGY, Journal Indexed in SSCI, December 2023

SURFACE AND COATINGS TECHNOLOGY, Journal Indexed in SSCI, December 2023

SURFACE AND COATINGS TECHNOLOGY, Journal Indexed in SSCI, December 2023

MATERIALS SCIENCE AND TECHNOLOGY, Journal Indexed in SSCI, October 2023

Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, National Scientific Refreed Journal, February 2023

Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, National Scientific Refreed Journal, February 2023

JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE, SCI Journal, June 2022

SURFACE AND COATINGS TECHNOLOGY, SCI Journal, May 2022

TRIBOLOGY INTERNATIONAL, SCI Journal, April 2022

SURFACE AND COATINGS TECHNOLOGY, SCI Journal, January 2022

TRIBOLOGY INTERNATIONAL, SCI Journal, December 2021

TRIBOLOGY INTERNATIONAL, SCI Journal, March 2021

## Scientific Research / Working Group Memberships

İleri Fonksiyonel Malzemeler Ve Yüzeyler Araştırma Grubu, Ataturk University, Turkey, <https://avesis.atauni.edu.tr/arastirma-grubu/afs>, 2013 - Continues

## **Metrics**

Publication: 49

Citation (WoS): 244

Citation (Scopus): 295

H-Index (WoS): 6

H-Index (Scopus): 8