

Ziya Esen

Associate Prof.
Çankaya University
Materials Science and Engineering Department
e-mail:ziyaesen@cankaya.edu.tr
Office: NB-16
Tel: +90 (312) 2331395; Fax: +90 (312) 2331024



Adress:
Çankaya University Eskişehir Yolu 29. Km,
Yukarıyurtçu Mahallesi Mimar Sinan Caddesi No:4, 06790 Etimesgut/ANKARA, TURKEY

Education

Degree	Department/Program	University	Year
Graduate	Metallurgical and Materials Engineering	Middle East Technical University, Ankara/TURKEY (3.74/4.00)	1999
M.S.	Metallurgical and Materials Engineering	Middle East Technical University, Ankara/TURKEY (4.00/4.00)	2002
Ph.D.	Metallurgical and Materials Engineering	Middle East Technical University, Ankara/TURKEY (3.89/4.00)	2007
Associate	Metallurgical and Materials Engineering	-	2014

Academic

Title	University/Department	Year
Teaching Assistant	Middle East Technical University Metallurgical and Materials Engineering, Ankara/TURKEY	1999-2006
Instructor Dr.	Anadolu University Materials Science and Engineering, Eskişehir/TURKEY	2009-2009
Assist. Prof.	Çankaya University Industrial Engineering, Ankara/TURKEY	2009-2010
Assist. Prof.	Çankaya University Materials Science and Engineering, Ankara/TURKEY	2010-2014
Post Doc. Fellow	Waterloo University Institute for Nanotechnology, Waterloo/CANADA	2015-2016
Assoc. Prof.	Çankaya University Materials Science and Engineering, Ankara/TURKEY	2014-

Administrative

Title	University/Department	Year
Vice Chairman	Çankaya University Materials Science and Engineering, Ankara/TURKEY	2014-2015
Chairman	Çankaya University Materials Science and Engineering, Ankara/TURKEY	2017-...
Director	Çankaya University Graduate School of Natural and Applied Sciences, Ankara/TURKEY	2020-...

Professional Experience

Title	Company	Year
R&D Engineer	Ün-TEKNİK Press Die Machine Machining, Ankara/TURKEY	2009-2009
Director	Titadent Medical Engineering Ltd. Company, Ankara/TURKEY	2012-2015

Scientific Skills and Research Fields

- Physical Metallurgy, Powder Metallurgy (traditional and additive manufacturing).
- Production of metallic biomaterials (foams and composites) and their surface processing.
- Nanomaterials synthesis (graphene derivatives (GO, rGO and rGO gel) and metal/graphene hybrid structures) using laser ablation method,
- Field Effect Transistor Biosensors production (breast cancer detection),
- Surface chemistry and functionalization of biosensors,
- Micro-Nano fabrication
-Hands on experience on clean room technologies (Lithography, DRIE, Wet etching, e-beam deposition).
- Characterization Techniques
Mechanical characterization: universal mechanical testing devices,
Surface: AFM, XPS, surface profiler,
Structure: XRD,
Spectroscopy: IR and UV – Visible Spectroscopy, FTIR, Raman,
Morphology: SEM, TEM,
Electrical characterization: probe stations, 4-point measurement.

Thesis Supervised

- 1) M.S. Thesis, "Production and Characterization of Surface Treated Biomedical Ti6Al7Nb Alloy Foams (Co-Supervisor, Ezgi Bütev, Middle East Technical University, Metallurgical and Materials Engineering), 2012-2015.
- 2) M.S. Thesis, "Surface Activation and Characterization of Porous Titanium and Ti6Al4V alloys"(Co-Supervisor, Elif Eda Yeni, Anadolu University, Materials Science and Engineering), 2013-2015.
- 3) M.S. Thesis, "Processing and Characterization of Carbon Fiber Reinforced Silicon Carbide (C/C-SiC) Matrix Composites" (Co-Supervisor, Simge Tülbez, Middle East Technical University, Metallurgical and Materials Engineering), 2012-2015
- 4) M.S. Thesis, "Development of Sn-based anode materials for Li-ion batteries" (Co-Supervisor, Emre Yılmaz, Middle East Technical University, Metallurgical and Materials Engineering), 2014-2015.
- 5) M.S. Thesis, " Optimization of the Mechanical Properties of the Ti-6Al-4V Alloy Fabricated By Additive Manufacturing Using Thermochemical Processes" Güneş Mert Bilgin, Middle East Technical University, Metallurgical and Materials Engineering), 2014-2017.
- 6) M.S. Thesis, "Production of Ti-6Al-4V Alloy by 3d Electron Beam Melting Technique and Development of Its Post Treatments" Merve Nur Dogu, Middle East Technical University, Metallurgical and Materials Engineering, 2019.
- 7) M.S. Thesis, Production and Characterization of Half Huesler Type Thermoelectric Materials, Erdil Akar, Cankaya University, Micro and Nanotechnology Program, Ongoing.
- 8) M.S. Thesis, Production of Maxene Alloys for Various Applications, Merve Ozkan, Cankaya University, Micro and Nanotechnology Program, Ongoing.
- 9) M.S. Thesis, Hydrodynamic separation of different sized particles in spiral microfluidic channels, Ege Mutlu, Cankaya University, Micro and Nanotechnology Program, Ongoing.
- 10) Ph.D. Thesis, Designing of Ti-Mg Composites for Functional Applications, Ezgi Bütev Öcal, Middle East Technical University, Metallurgical and Materials Engineering, Ongoing.

Projects

- 1) "Development of Atmosphere and Vacuum Controlled Heat Treatment Furnace for Additive Manufacturing", Tubitak Sayem (Cankaya Uni-Alser Teknik-Ermaksan A.S.-METU), Under Preparation, 2020, *PI*.
- 2) "Weight reduction in aerospace parts produced via additive manufacturing by cellular structure integration-Development of Design Methodology for Additive Manufacturing and Domestic Production of Some Supplies", Tubitak 1501, 2019, Under review, Consultant
- 3) "Maskless Photolithography System", Karbon Bilişim, KOSGEB (R&D-Innovation), 2017-2020, Consultant
- 4) "Production of Graphene Derivatives By Laser Ablation and Their Implementation in Field-Effect-Transistors for Biosensing Applications", Tubitak 2219 fellowship programme, September 2015- September 2016.
- 5) "Manufacturing and Testing of Graphene-based -FETs Biosensors" Natural Sciences and Engineering Research Council of Canada, (Engage grant), (January 2016- June 2016) *Researcher*.
- 6) TÜBİTAK 112341, "Surface Activation of Porous Ti6Al7Nb Implant Alloys by Hydrothermal Methods for Biomedical Applications and Their Characterization" (November 2012-May 2015), *PI*.
- 7) Republic of Turkey Ministry of Science, Industry and Technology, TGSD 2012-059, "Production of artificial titanium dental implants with porous surface" (July 2012-June2013), *PI*.
- 8) TÜBİTAK 104M121, " Production and Characterization of pure titanium and Ti6Al4V alloy foams by powder metallurgy" (April 2005-April 2007), *Researcher*.
- 9) DPT2003K120920-15, " Production, Shaping and Characterization of TiNi Shape Memory Alloys" (May 2003-December 2005), *Researcher*.
- 10) METU SRP-2004-07-02-00-110, "Production of Ti and TiNi shape memory alloy foams by powder metallurgy" (January 2004-January 2006), *Researcher*.
- 11) METU SRP-2005-03-08-05, " Production and Characterization of Ti6Al4V alloy foams via loose powder sintering" (January 2005-December 2006), *Researcher*.

Project and Congress Related Tasks

- 1) The Scientific and Technological Research Council of Turkey (TÜBİTAK), 1001, 2216, 2219, 3501, 1501 projects, Panelists&consultant,
- 2) Republic of Turkey Ministry of Science, Industry and Technology, Industry-Thesis, Panelists&Project Review Expert,
- 3) Republic of Turkey Ministry of Science, Industry and Technology, Research & Development Centre, Project Review Expert,
- 4) KOSGEB, Technological Production Support Program, Project Review Expert,
- 5) University Scientific Research Projects Consultant
- 6) Session Coordinator & Chair. (IMMC, Çankaya Üni. Eng.&Tech. Symp.)
- 7) Organising Committee member, European Symposium on Martensitic Transformation, ESOMAT 2021.

Editorial and Scientific Activities

- 1)Editor in Chief-Cankaya University Journal of Science and Engineering
- 2)Refreeing
 - Materials Science and Engineering A
 - Materials Letters
 - Applied Surface Science
 - Journal of the Mechanical Behavior of Biomedical Materials
 - Journal of Alloys and Compounds
 - Gazi University Journal of Science
 - University Scientific Journals (Çankaya University, Selcuk University)

Awards&Fellowship

- 1) Middle East Technical University, Metallurgical and Materials Engineering, 1999 graduates 1st Rank (3.74/4.00).
- 2) Tübitak Ph.D. Fellowship, 2005-2006.
- 3) Tübitak International Postdoctoral Research Fellowship, 2015-2016.
- 4) Tübitak Research Projects Performance Reward, 2019.

Publications

1-Thesis

- 1) *M.S.*
"Powder Metallurgy of CuAlNi Shape Memory Alloys", METU 2002
- 2) *Ph.D.*
"Production and Characterization of Porous Titanium Alloys", METU 2007

2- Book Chapter

- 1) Advances in Metallic Biomaterials: Tissues, Materials and Biological Responses, Niinomi Mitsuo, Narushima Takayuki, Nakai Masaaki (Eds.), Chapter 12: Corrosion of metallic biomaterials, Authors : Burak Dikici, Ziya Esen, Özgür Duygulu, Serap Güngör Geridonmez, pp.275-303), Springer, 2015.

3- Patent

- 1) 2009/01058 - "A production method for porous titanium and its alloys"
Tarık Aydoğmuş, Ziya Esen, Şakir Bor
TR 2009 01058 B
21.02.2012

4-Journal Articles

- 1) Merve Nur DOGU, Ziya Esen, Kemal Davut, Evren Tan, Berkay Gümüş, Arcan F. Dericioğlu, Microstructural and Texture Evolution During Thermo-Hydrogen Processing of Ti6Al4V Alloys Produced by Electron Beam Melting, Materials Characterization, under review.
- 2) Simge Tülbez, Ziya Esen, Arcan F. Dericioğlu, Effect of CNT Impregnation on the Mechanical and Thermal Properties of C/C-SiC Composites, Advanced Composites and Hybrid Materials, under review.
- 3) Ziya Esen, Ezgi Bütev Öcal, Aslı Akkaya, Bensu Gürçay, Ceren Özcan, Burcu Aslı Özgümüş, Özgür Duygulu, Arcan F. Dericioğlu, Corrosion behaviours of Ti6Al4V-Mg/Mg-Alloy composites, *Corrosion Science*, 2020, 166, 108470.
- 4) Ezgi Bütev Öcal, Ziya Esen, Kadri Aydınol, Arcan F. Dericioğlu, Comparison of the short and long-term degradation behaviors of as-cast pure Mg, AZ91 and WE43 alloys, *Materials Chemistry and Physics*, 2020, 241, 122350 .
- 5) Oktay Cetinel, Ziya Esen and Bora Yildirim, Fabrication, Morphology Analysis, and Mechanical Properties of Ti Foams Manufactured Using the Space Holder Method for Bone Substitute Materials, *Metals*, 2019, 9(3), 340-351.
- 6) Levent Koroglu, Ezgi Butev, Ziya Esen, Erhan Ayas, A Novel Approach for Synthesis of Monticellite Based Bioactive Ceramic Powders from Boron Derivative Waste, *Materials Letters*, 2017, 209, 315-318.
- 7) Güney Mert Bilgin, Ziya Esen, Şeniz Kuşhan Akın, Arcan F. Dericioğlu, Optimization of the Mechanical Properties of Ti-6al 4v Alloy Fabricated by Selective Laser Melting using Thermohydrogen Processes, *Materials Science and Engineering A*, Volume 700, 2017, 574-582.
- 8) Sila Ece Atabay, Ziya Esen, Arcan F. Dericioğlu, Effect of Sn Alloying on the Diffusion Bonding Behavior of Al-Mg-Si Alloys, *Metallurgical and Materials Transactions A*, Accepted, April 2017.
- 9) Ziya Esen, Ezgi Butev, " Surface characteristics and in-vitro behavior of chemically treated bulk Ti6Al7Nb alloys", *Surface and Coatings Technology*, 309, 2017, 829-839.
- 10) N. Rona, M. Yenisey, G. Kucukturk, H. Gurun, C. Cogun, Z. Esen, "Effect of electrical discharge machining dental Y-TZP ceramic-resin bonding, *Journal of Prosthodontic Research*, Volume 61, Issue 2, 2017, 158-167.
- 11) Ziya Esen, Ezgi Bütev, M. Serdar Karakaş, "A comparative study on biodegradation and mechanical properties of pressureless infiltrated Ti/Ti6Al4V-Mg composites ", *Journal of the Mechanical Behavior of Biomedical Materials*, vol. 63, pp. 273–286, 2016.
- 12) Ezgi Bütev, Ziya Esen, Şakir Bor, "Characterization of Ti6Al7Nb alloy foams surface treated in aqueous NaOH and CaCl₂ solutions" *Journal of the Mechanical Behavior of Biomedical Materials*, 60, 2016, 127-138.

- 13) C. Cogun, Z. Esen, A. Genc, F. Cogun, N. Akturk, "The effect of powder metallurgy Cu-B₄C composite electrodes on the performance outputs and work surface characteristics of electric discharge machining" Journal of Engineering Manufacture: Part B, 2015, 1-14. DOI: 10.1177/0954405415593049
- 14) Ezgi Bütev, Ziya Esen, Şakir Bor, "Investigation of Structural and Mechanical Properties of Alkali Treated Porous Ti6Al7Nb Alloys", Applied Surface Science, 327, 2015, 437-443
- 15) Ziya Esen, Burak Dikici, Özgür Duygulu, Arcan F. Dericioğlu, "Titanium-magnesium based composites: mechanical properties and in-vitro corrosion response in Ringer's solution", Materials Science and Engineering A 573, 2013, 119-126.
- 16) Ziya Esen, "The Effect of Processing Routes on the Structure and Properties of Mg-TiNi Composites", Materials Science and Engineering A 558, 2012, 632-640.
- 17) Z. Esen, Ş. Bor, "Characterization of Ti6Al4V Foams Synthesized by Space Holder Technique", Materials Science and Engineering A 528, 2011, 3200-3209.
- 18) Ziya Esen, Elif Tarhan, Şakir Bor, "Characterization of Loose Powder Sintered Porous Titanium and Ti6Al4V Alloy", Turkish Journal of Engineering and Environmental Sciences, 33, 2009, 207-219.
- 19) Z. Esen, Ş. Bor, "Processing of Titanium Foams Using Magnesium Spacer Particles", Scripta Materialia, 2007; 56; 341-344.

6- Meetings and Symposia

6.1. International

- 1) Merve Nur Doğu, Güney Mert Bilgin, Ziya Esen, Evren Tan, Berkay Gümüş, Arcan F. Dericioğlu, Designing thermochemical processes for Ti6Al4V alloy produced by additive manufacturing techniques, 4th International Congress on 3D Printing (Additive Manufacturing) Technologies and Digital Industry, 11-14 April 2019, Antalya.
- 2) Merve Nur Doğu, Ziya Esen, Evren Tan, Berkay Gümüş, Arcan F. Dericioğlu, Production of Ti-6Al-4V Alloy by 3D Electron Beam Melting Technique and Development of its Post Treatments, TMS 2019 148th Annual Meeting and Exhibition, March 10-14, 2019, San Antonio, Texas, USA.
- 3) Ezgi Bütev Öcal, Ziya Esen, Arcan Dericioğlu. "Production And Characterization of Ti-Mg Composites For Various Applications". IMMC 2018, 19th International Metallurgy and Materials Congress, 25-27 October 2018, Istanbul, TURKEY.
- 4) İdil Meriç İkiz, Ezgi Yantiri, Ezgi Bütev Öcal, Özgür Duygulu, Ziya Esen. "Formation of Titanium Oxide Layers Decorated by Gold Nanoparticles on the Surface of Ti6Al4V Alloy". IMMC 2018, 19th International Metallurgy and Materials Congress, 25-27 October 2018, Istanbul, TURKEY.
- 5) Gülberk Selin Kiran, Burak Ünal, Teksen Tügen, Ezgi Bütev Öcal, Ziya Esen. "Structural and Functional Characterization of MgO and Na-Based Coatings on Ti6Al4V Alloy". IMMC 2018, 19th International Metallurgy and Materials Congress, 25-27 October 2018, Istanbul, TURKEY.
- 6) Simge Tülbez, Ziya Esen, Arcan F. Dericioğlu, Investigations on Alternative Matrix Materials Towards the Efficiency of SiC Formation in C/SiC Ceramic Composites, IMMC 2018, 19th International Metallurgy and Materials Congress, 25-27 October 2018, Istanbul, TURKEY.
- 7) Güney Mert Bilgin, Ziya Esen, Arcan F. Dericioğlu, The Effect of Thermohydrogen Process on the Mechanical Properties of the Ti-6Al-4V Alloy Produced by Selective Laser Melting, IMMC 2018, 19th International Metallurgy and Materials Congress, 25-27 October 2018, Istanbul, TURKEY.
- 8) Sıla Ece Atabay, Ziya Esen, Arcan F. Dericioğlu, Effect of Sn Alloying on Diffusion Bonding Behavior of Al-Mg-Si Alloy, TMS 2017, 146th Annual Meeting & Exhibition February 26 – March 2, 2017 • San Diego, California.
- 9) Mert Bilgin, Ziya Esen, Şeniz Kuşhan Akın, Arcan F. Dericioğlu, Tailoring the Mechanical Properties of Additively Manufactured Ti-6Al-4V Alloys by Post Processing, TMS 2017, 146th Annual Meeting & Exhibition February 26 – March 2, 2017 • San Diego, California, USA
- 10) Simge Tülbez, Ziya Esen, Arcan F. Dericioğlu, Optimization of Pyrolysis and Liquid Silicon Infiltration Parameters for the Processing of C/C-SiC Composites, 18th International Metallurgy and Materials Congress, 29 Sept. - 01 Oct. 2016, İstanbul Turkey.
- 11) Güney Mert Bilgin, Ziya Esen, Şeniz Reyhan Kuşhan Akın, Arcan F. Dericioğlu, Microstructural Refinement of Ti-6Al-4V Alloy Fabricated by Additive Manufacturing Using Thermochemical Processes, 18th International Metallurgy and Materials Congress, 29 Sept. - 01 Oct. 2016, İstanbul Turkey.
- 12) Z. Esen, M. Irannejad, I. Novodchuck, B. Wales, J. Sanderson, M. Yavuz, Synthesis and characterization of reduced graphene oxide-gold hybrid nanostructures using femtosecond laser ablation, 7th International Conference on Optical, Optoelectronic and Photonic Materials and Applications, June 12–17, 2016 Polytechnique Montréal, Montréal, Québec, Canada.
- 13) Güney Mert Bilgin, Arcan Dericioğlu, Ziya Esen, Seniz Reyhan Kushan Akin, "Optimization of the Mechanical Properties of the Ti-6Al-4V Alloy Fabricated By Additive Manufacturing Using Thermochemical Processes" TMS 2016, 145th Annual Meeting & Exhibition February 14 – 18, 2016 • Nashville, Tennessee, USA.

- 14) Ezgi Büttev, Aydın Albayrak, Hande Bircan, Merve Nur Doğu, Pelin Gündoğmuş, Buse Kahyaoğlu, Ziya Esen. "Structural And Functional Characterization of Surface Treated Biomedical Ti6Al7Nb Alloy Foams" PPM 2015 International Porous Powder Materials, 15-18 September 2015, Çeşme, İzmir, TURKEY.
- 15) Ezgi Büttev, Ziya Esen, Şakir Bor, "In-vitro studies of surface modified highly porous Ti6Al7Nb Alloys" TMS 2015 144th Annual Meeting and Exhibition, 15-19 March, Orlando, Florida, USA, 2015.
- 16) Ziya Esen, Ezgi Büttev, Emre Yılmaz, "Production and Characterization of Mg-Based Composites" TMS 2015 144th Annual Meeting and Exhibition, 15-19 March, Orlando, Florida, USA, 2015.
- 17) Elif Eda Yeni, Ezgi Büttev, Emre Yılmaz, Ziya Esen, Servet Turan, "Surface Treatment and Characterization of the Ti6Al4V Alloy Powders for Biomedical Applications", IMMC 2014, Istanbul, Turkey.
- 18) Ezgi Büttev, Elif Eda Yeni, Emre Yılmaz, Ziya Esen, Şakir Bor, "Characterization of Apatite Formation Ability of Alkali Treated Bulk Ti6Al7Nb Alloy by in-vitro Studies", IMMC 2014, Istanbul, Turkey.
- 19) Ziya Esen, "TiNi Reinforced Magnesium Composites by Powder Metallurgy", TMS2011, 140th Annual Meeting&Exhibition, February 27-March 3, 2011, San Diego, California USA, pp. 457-462.
- 20) Ziya Esen, Arcan F. Dericioğlu, Şakir Bor, "Biyomedikal Uygulamalar için Ti-Mg Kompozitlerin Geliştirilmesi" 6. International Powder Metallurgy Conference and Exhibition, 5-9 Ekim 2011 ODTÜ-Ankara, pp. 163-169
- 21) Z. Esen, E. Tarhan, K. Aydınol, Ş. Bor, "Su verilmiş Ti6Al4V Alaşımında yaşlandırma sırasında mikroyapısal gelişimi", 12th International Metallurgical and Materials Congress and Fair, Turkey, 2005, pp. 1745-1751.
- 22) Z. Esen, E. Tarhan, Ş. Bor, "Biyomedikal amaçlı gözenekli titanyum ve Ti6Al4V alaşımı üretimi", 12th International Metallurgical and Materials Congress and Fair, Turkey, 2005, pp. 204-211.
- 23) Z. Esen, B. Ögel, Ş. Bor, "Cu-Al Alaşım sisteminde sinterleme sırasında gözenek oluşumu", 12th International Metallurgical and Materials Congress and Fair, Turkey, 2005, pp. 332-339.
- 24) Z. Esen, B. Ögel, Ş. Bor, "Toz metalurji yöntemiyle bakır bazlı şekil bellekli alaşımların üretimi", 11th International Metallurgical and Materials Congress, Turkey, 2002, pp. 1637-1642.
- 25) Ziya Esen, Burak Dikici, Özgür Duygulu, "Investigation of Ti-based Composites and Porous Materials Designed for Biomedical Applications", International Conference on Processing & Manufacturing of Advanced Materials, Dec 2-6, 2013, Rio Hotel, Las Vegas, USA, pp.176-177. *Invited Speaker*
- 26) Ezgi Büttev, Ziya Esen, Şakir Bor, "Surface Activation of Porous Ti6Al7Nb Scaffolds", International Conference on Processing&Manufacturing of Advanced Materials, Dec 2-6, 2013, Rio Hotel, Las Vegas, USA, pp.120.
- 27) Ziya Esen, Şakir Bor "Investigation of Structure and Mechanical Property Relationship of Porous Titanium and Titanium Alloys" TMS2012, 141st Annual Meeting&Exhibition, Mart 11-15 Orlando,Florida, USA., pp452.

6.2.National

- 28) Ziya Esen, Havacılıkta kullanılan demirdışı alaşımlar ve ileri üretim teknikleri, Tf-X Bütünleşik İşlemci Ünitesi Teknolojileri Çalıştayı, 11-13 Aralık 2018, TÜBİTAK GEBZE.
- 29) Merve Nur Doğu, Güney Mert Bilgin, Ziya Esen, Evren Tan, Berkay Gümüş, Arcan F. Dericioğlu, Elektron demeti ergitme ve seçmeli lazer ergitme yöntemleriyle üretilen Ti6Al4V alaşımının mekanik özelliklerinin termohidrojenleme yöntemi ile optimize edilmesi, Aselsan 3. Malzeme Çalıştayı, 10-11 Mayıs 2018, Ankara.
- 30) Seren Özer, Güney Bilgin, Ziya Esen, Arcan Dericioğlu, Seçmeli Lazer Eritme Yöntemiyle Üretilmiş Inconel 718 Alaşımlarının Mekanik Özelliklerinin Geliştirilmesi, Aselsan 3. Malzeme Çalıştayı, 10-11 Mayıs 2018, Ankara.
- 31) Ziya Esen, "Production and mechanical characterization of biomedical Ti6Al4V alloy foams", 3rd Engineering and Technology Symposium, Çankaya Üniversitesi, Ankara, Turkey, April 2010, pp. 199-207.

7- Poster

- 1) Seren Özer, Güney Bilgin, Ziya Esen, Arcan Dericioğlu, Improvement of the Mechanical Properties of Inconel718 Fabricated by Selective Laser Melting (SLM), TMS 2019 148th Annual Meeting and Exhibition, March 10-14, 2019, San Antonio, Texas, USA.
- 2) Merve Nur Doğu, Ziya Esen, Evren Tan, Berkay Gümüş, Arcan F. Dericioğlu, Property Development of EBM Processed Ti-6Al-4V Alloy Through Hydrogen Treatments, IMMC 2018, 19th International Metallurgy and Materials Congress, 25-27 October 2018, Istanbul, TURKEY.
- 3) Şeniz Kuşhan Akın, Ziya Esen and Ezgi Büttev Öcal, "Surface modification of titanium with silicon nitride", 15th Conference and Exhibition of the European Ceramic Society (ECerS2017), July 9-13, 2017, Budapest, Hungary.
- 4) Elif Eda Yeni, Ziya Esen, Servet Turan, "Comparison of Apatite Deposition on the Surface of Titanium and Ti6Al4V Alloy Powders" TMS 2015 144th Annual Meeting and Exhibition, 15-19 March, Orlando, Florida, USA, 2015.

- 5) Ezgi Bütev, Elif Eda Yeni, Emre Yılmaz, Ziya Esen, Şakir Bor, "Effect of Alkali Treatment Parameters on Surface Structures and Mechanical Properties of Porous Ti6Al7Nb Scaffolds", IMMC, Istanbul, TURKEY, 2014.
- 6) Ziya Esen, Duygu Katırcı, "Production of artificial dental implants with high osseointegration property" Metallic Ideas, 1st Research and Development Project Bazaar, İSTANBUL, TURKEY, 31 October 2012.
- 7) Ezgi Bütev, Ziya Esen, "Manufacturing and Characterization of Titanium, Ti6Al4V and Ti6Al7Nb Alloy Dental Implants with highly Porous Surfaces", 5th International Symposium of Advanced Protocols in Oral Implantology, Antalya, TURKEY, April 20/23 , 2013/
- 8) Ziya Esen, Duygu Katırcı, "Production of Artificial Dental Implants", Türkiye inovasyon haftası, İSTANBUL, TURKEY, 6-8 Aralık 2012.

Courses Taught

- PHYS 111 Physics I
- PHYS 112 Physics II
- IE 114 Materials Science and General Chemistry
- MSE 201 Materials Science I
- MSE 206 Materials Characterization I
- IE 210 Manufacturing Processes
- IE 211 Introduction to Engineering Thermodynamics
- MSE 225 Introduction to Materials Science
- MSE 235 Materials Science for Electronics Engineers
- MSE 226 Engineering Materials
- MSE 309 Phase Diagrams
- MSE 310 Kinetics and Microstructural Evolution
- MLZ 318 Metallic Materials
- MSE 402 Advanced Materials and Composites
- MSE 406 Science and Technology of Nano structures
- MSE 407 Innovative Engineering Analysis and Design
- MSE 408 Innovative Eng. Design & Implementation
- IE 407 System's Analysis
- IE 408 System's Design and Implementation
- MSE 421 Diffusion in Solids
- MSE 426 Thermal Processing of Materials
- MSE 427 Electronic, Optical and Magnetic Materials and Devices
- MSE 428 Materials for Biomedical Applications
- MNT 501 Fundamentals of Nanotechnology
- MNT 503 Synthesis and Characterization at Nanoscale

Citations

- Sum of Times Cited: 305 times (average citations per item 12.2).

Computer Skills

- Microsoft Office, Turbo Pascal, Mathcad, L-Edit, Sigma Plot, Origin, Casa XPS.

Language Skills

- Fluent in English (Oral, written and reading), German (Beginner).