

## Asst. Prof. HAKKI ÖZER

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### International Researcher IDs

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Publons / Web Of Science ResearcherID: AAI-6897-2021

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### Education Information

Doctorate, Bursa Uludağ University, FEN BİLİMLERİ ENSTİTÜSÜ, Otomotiv Mühendisliği (Dr), Turkey 2015 - 2022

Postgraduate, Bursa Uludağ University, FEN BİLİMLERİ ENSTİTÜSÜ, Otomotiv Mühendisliği (YI) (Tezli), Turkey 2013 - 2015

Undergraduate, Suleyman Demirel University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Turkey 2008 - 2012

### Dissertations

Doctorate, Kendi kendine iyileşebilen sandviç yapıların darbe yükleri altında hasar davranışı ve iyileşme performansı, 2021

Postgraduate, Sürekli cam elyaf takvyeli termoplastik kompozit malzemelerin geliştirilmesi ve mekanik özelliklerinin deneysel olarak belirlenmesi, 2015

### Research Areas

Composite materials, Acoustics and Noise Control, Mechanical Vibrations, Mechanical, Solid Mechanics, Mechanical Testing, Mechanical Properties, Polymeric Materials, Material Characterization

### Academic Titles / Tasks

Research Assistant, Bursa Uludağ University, MÜHENDİSLİK FAKÜLTESİ, OTOMOTİV MÜHENDİSLİĞİ, 2013 - Continues

### Research Infrastructure Information

Yazıcı M., Özada Ç., Özer H., Güçlü H., Ünal M., Kuzu E., NANOCOMPOSITES, SMART MATERIALS AND SENSOR TECHNOLOGIES LAB., January 2019

Yazıcı M., Güçlü H., Özer H., Türkoğlu İ. K., Bayram T., Matyar B., Taş O., Kuzu E., Özada Ç., Ünal M., et al., COMPOSITE MATERIALS AND MANUFACTURING SYSTEMS R&D LABORATORY, January 2015

Yazıcı M., Güçlü H., Özer H., Hayırkuş A., Taş O., Duran G., Türkoğlu İ. K., Matyar B., IMPACT DYNAMICS AND CRASHWORTHINESS LAB., January 2014

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

- I. **Sound insulation performance of honeycomb core aluminum sandwich panels with flexible epoxy-based foam infill**  
Boztoprak Y., Ünal M., Özada Ç., Kuzu E., Özer H., Ergin F., Yazıcı M.  
Composite Structures, vol.319, 2023 (SCI-Expanded)
- II. **A sandwich panel that autonomously repairs sudden large holes and defects for tankers and pipelines carrying hazardous matter**  
Özer H., Kuzu E., Özada Ç., Ünal M., Kasım H., Yazıcı M.  
Proceedings of the Institution of Mechanical Engineers, Part L: Journal of Materials: Design and Applications, vol.236, no.10, pp.2002-2016, 2022 (SCI-Expanded)
- III. **Development and characterization of self-healing microcapsules, and optimization of production parameters for microcapsule diameter and core content**  
Özada Ç., Ünal M., Kuzu Şahin E., Özer H., Motorcu A. R., Yazıcı M.  
MULTIDISCIPLINE MODELING IN MATERIALS AND STRUCTURES, vol.18, no.6, pp.1049-1077, 2022 (SCI-Expanded)
- IV. **The self-healing sandwich panel: Production of epoxy based self-healing capsules, self-healable sandwich panel development, and experimental measurement of self-healing performance**  
Özer H., Kuzu E., Ozada C., Unal M., Yazıcı M.  
CONSTRUCTION AND BUILDING MATERIALS, vol.310, 2021 (SCI-Expanded)
- V. **Investigation of the Crash Boxes Light Weighting with Syntactic Foams by the Finite Element Analysis**  
Ozer H., Can Y., Yazici M.  
ACTA PHYSICA POLONICA A, vol.132, no.3, pp.734-737, 2017 (SCI-Expanded)

## Articles Published in Other Journals

- I. **DEVELOPMENT OF MNO<sub>2</sub>/PANI/SWCNT NANOCOMPOSITE SUPERCAPACITOR ELECTRODE AND INVESTIGATION OF ELECTROCHEMICAL PERFORMANCE**  
Özada Ç., Ünal M., Özer H., Yazıcı M.  
Uludağ University Journal of The Faculty of Engineering, vol.28, no.3, pp.887-904, 2023 (Peer-Reviewed Journal)
- II. **Open-Hole Tensile Experiments of Thermoplastic Composite Laminates and Finite Element Analysis**  
Özer H., Kurtuluş O., Güçlü H., Taş M., Yazıcı M.  
International Journal of Computational and Experimental Science and Engineering (IJCESSEN), vol.3, no.1, pp.44-46, 2017 (Peer-Reviewed Journal)
- III. **Mechanical Properties of 2D Cross Ply EGlassFiber Reinforced ThermoplasticLaminated Composite Materials**  
YAZICI M., ÖZER H., Karen İ., Can Y., Torçuk C.  
International Journal of Automation Mechatronics & Robotics (IJAMR), vol.3, no.1, pp.56-60, 2016 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **İKİ YÖNLÜ ONDÜLASYONA SAHİP ALÜMİNYUM ÇEKİRDEK VE KOMPOZİT PLAKALARLA GELİŞTİRİLEN SANDVIÇ YAPILARIN NOKTASAL TAHRİKLİ DELİNME DAVRANIŞI**  
Özerol B., Özer H., Yazıcı M.  
2. BİLSEL INTERNATIONAL HARPUT SCIENTIFIC RESEARCHES CONGRESS 27-28, APRILELAZIĞ/TÜRKİYE, Elazığ, Turkey, 27 - 28 April 2024, vol.1, pp.1
- II. **SÜREKLİ CAM ELYAF TAKVİYELİ TERMOPLASTİK KOMPOZİT ÇOK HAFİF ÇEKİ KOLU ÜRETİMİ**

Yazıcı M., Özer H., Torbalı M. S., Duran G.

2. BİLSEL INTERNATIONAL HARPUT SCIENTIFIC RESEARCHES CONGRESS 27-28, APRILELAZIĞ/TÜRKİYE, Elazığ, Turkey, 27 - 28 April 2024, vol.1, pp.3

- III. **Flexural and penetration behavior of sandwich structures developed with Two Dimensional Corrugated Aluminum Core and composite plates**  
Özerol B., Özer H., Yazıcı M.  
5th INTERNATIONAL CONGRESS ON CONTEMPORARY SCIENTIFIC RESEARCH, Kayseri, Turkey, 21 - 22 April 2024, vol.1, pp.1
- IV. **Functionally Graded Syntactic Foam Core Sandwich Materials Under Blast and Impact Loading**  
Türkoğlu İ. K., Özer H., Güçlü H., Can Y., Yazıcı M.  
8th INTERNATIONAL CONFERENCE ON COMPUTATIONAL AND EXPERIMENTAL SCIENCE AND ENGINEERING (ICCESEN-2021), Antalya, Turkey, 27 - 31 October 2021, pp.2
- V. **Experimental Investigation Of The Behavior Of Sandwich Panels under Shock Loading**  
Yazıcı M., Can Y., Özer H., Güçlü H.  
7 th International Conference on Computational and Experimental Science and Engineering, Antalya, Turkey, 21 - 25 October 2020, vol.1, pp.84
- VI. **Sound Insulation Performance of Honeycomb Core Aluminum Sandwich Panels with Flexible Epoxy Based Foam Infill**  
Boztoprak Y., Özada Ç., Ünal M., Özer H., Ergin F., Yazıcı M.  
Thermophysical and Mechanical Properties of Advanced Materials (THERMAM, İzmir, Turkey, 22 - 24 September 2019
- VII. **Development of Self-Healable Syntactic Foams**  
Ünal M., Özada Ç., Özer H., Aykut Y., Yazıcı M.  
6th INTERNATIONAL CONFERENCE ON COMPUTATIONAL AND EXPERIMENTAL SCIENCE AND ENGINEERING (ICCESEN-2019), Antalya, Turkey, 23 - 27 October 2019, vol.1, pp.273
- VIII. **Sound Insulation Performance of Chemically Foamed Low-Density Polyethylene Thermoplastics Materials**  
El Khodor M., Alışkın M., Özer H., Ergin F., Yazıcı M.  
Thermophysical and Mechanical Properties of Advanced Materials (THERMAM), İzmir, Turkey, 22 - 24 September 2019
- IX. **Production of syntactic foam material and vehicle collisions with elements of syntactic foam material modeling with finite element analysis**  
Özer H., Can Y., Yazıcı M.  
International Conference on Computational and Experimental Science and Engineering (İccesen 2016), Antalya, Turkey, 19 - 24 October 2016, pp.472
- X. **Investigation of Mechanical Properties of Reinforcement Thermoplastic Composite Materials and Finite Element Analysis**  
Özer H., Kurtuluş O., Taş M., Yazıcı M.  
International Conference on Computational and Experimental Science and Engineering (İccesen 2016), Antalya, Turkey, 19 - 24 October 2016, pp.357
- XI. **RUBBER BASED SYNTACTIC FOAM CORE SANDWICH PANELS**  
Kasım H., Özer H., Yazıcı M.  
International Congress on Natural and Engineering Sciences (ICNES 2016), Skopje, Macedonia, 1 - 05 September 2016, pp.18
- XII. **TERMOPLASTİK KOMPOZİT MALZEME VE SENTAKTİK KÖPÜK ESASLI SANDVIÇ YAPILARDAN ÇOK HAFİF TAMPON KİRİŞİ VE DARBE SÖNÜMLEYİCİ GELİŞTİRİLMESİ**  
Özer H., Can Y., Güçlü H., Karen İ., Yazıcı M.  
OTEKON 2016. 8.Otomotiv Teknolojileri Kongresi, Bursa, Turkey, 23 - 24 May 2016, pp.565-570
- XIII. **Mechanical Properties of 2D Cross Ply E Glass Fiber Reinforced Thermoplastic Laminated Composite Materials**  
Yazıcı M., Özer H., Karen İ., Can Y., Somyak C.

4th International Conference on Advances in Civil, Structural and Mechanical Engineering- CSM 2016, Birmingham, United Kingdom, 17 - 18 March 2016, pp.90-94

- XIV. **Experimental Determination of Mechanical Properties of 2D Cross Ply Glass Reinforced Thermoplastic Laminated Composite Materials and Finite Element Model Validation**  
Yazıcı M., Özer H., Türkoğlu İ. K., Güçlü H., Karen İ.  
2nd International Conference on Computational and Experimental Science and Engineering (ICCESEN 2015), Antalya, Turkey, 14 - 19 October 2015
- XV. **Investigation of the Polymer Composite Side Door Anti-intrusion Bar for a Light Commercial Vehicle**  
KAREN İ., TÜRKOĞLU İ. K., ÖZER H., GÜÇLÜ H., somyak c., torçuk c.  
INTERNATIONAL CONGRESS ON NATURAL AND ENGINEERING SCIENCES (ICNES 2015), Bosnia And Herzegovina, 9 - 13 September 2015
- XVI. **Frontal crash simulation of the Composite Car Bumper to Rigid Barriers and Poles**  
ÖZER H., can y., KAREN İ., GÜÇLÜ H.  
International Congress On Natural And Engineering Sciences (ICNES 2015), Bosnia And Herzegovina, 9 - 13 September 2015
- XVII. **Experimental Determination of Mechanical Properties of 2D Cross Ply Glass Fiber Reinforced Thermoplastic Laminated Composite Materials and Finite Element Model Validation**  
YAZICI M., ÖZER H., KANDIRMİŞ İ. K., GÜÇLÜ H., KAREN İ.  
2nd International Conference on Computational and Experimental Science and Engineering (ICCESEN 2015), Antalya, Turkey, 14 - 19 October 2015
- XVIII. **Frontal crash simulation of the Composite Car Bumper to rigid barriers and poles**  
Yazıcı M., Özer H., Can Y., Karen İ., Türkoğlu İ. K., Güçlü H.  
(ICNES 2015) INTERNATIONAL CONGRESS ON NATURAL AND ENGINEERING SCIENCES , Sarajevo, Bosnia And Herzegovina, 9 - 13 September 2015, pp.20
- XIX. **Investigation of the Polymer Composite Side Door Anti-intrusion Bar for a Light Commercial Vehicle**  
Yazıcı M., Karen İ., Türkoğlu İ. K., Özer H., Güçlü H., Somyak C., Torçuk C.  
(ICNES 2015) INTERNATIONAL CONGRESS ON NATURAL AND ENGINEERING SCIENCES, Sarajevo, Bosnia And Herzegovina, 9 - 13 September 2015, pp.25
- XX. **30MnB5 Çelik Malzemenin Kırılma Enerjisi Ve Dayanım Değerlerine Işıl İşlem Sıcaklıklarının Etkisi**  
GÜLER H., ERTAN R., ÖZER H.  
Otomotiv Teknolojileri Kongresi (2014), Bursa, Turkey, 26 - 27 May 2014

## Supported Projects

YAZICI M., ÜNAL M., DURAN G., GÜÇLÜ H., ÖZER H., KARAMAN A., KUZU E., Project Supported by Higher Education Institutions, Şekil Hafızalı Polimer Matrisli ve Reaktif Termoplastik Polimer Ajan Dolgulu Mikrokapsül Esaslı Kendi Kendine İyileşebilen Termoplastik Kompozit Malzemeler Geliştirilmesi ve İyileşme Performansının İncelenmesi, 2023 - Continues

KORKMAZ B., YAZICI M., ÖZADA Ç., GÜÇLÜ H., ÖZER H., ÜNAL M., KUZU E., Project Supported by Higher Education Institutions, Elektrikli Araçlarda Yüksek Performanslı Enerji Depolama Sistemleri için Multifonksiyonel Elektrolitlerin Geliştirilmesi ve Özelliklerinin İncelenmesi, 2022 - Continues

Yazıcı M., Pulat E., Özer H., Güçlü H., Motorcu A. R., Onat A., Türkoğlu İ. K., Boztoprak Y., TUBITAK Project, GERİ DÖNÜŞÜM PET MATRİSLİ, DOĞAL VE YÜKSEK MUKAVEMETLİ ELYAF TAKVİYELİ KARMA İPLİKLERDEN DOKUNMUŞ, ÇOK KATMANLI ORGANİK PLAKALAR GELİŞTİRİLMESİ, BATARYA KUTUSU ÜRETİMİ VE TESTLERİ, 2023 - 2025

Yazıcı M., Motorcu A. R., Onat A., Boztoprak Y., Türkoğlu İ. K., Özer H., TUBITAK Project, Elektrikli ve hibrit araçlarda menzil artışı için açtırılmış ve termoplastik matrise göre uyumlaştırılmış elyaf takviyeli termoplastik kompozit, dövme çelik malzemeye ikame çeki kolu geliştirilmesi, 2022 - 2024

Özer H., Project Supported by Higher Education Institutions, Piezoelektrik Etkiyle Kendi Kendine Şarj Olabilen Elektrospon PVDF-TrFE Birleştirilmiş MnO<sub>2</sub>PANICNT Süperkapasitör Geliştirilmesi ve Karakterizasyonu, 2021 - 2024

Yazıcı M., TUBITAK Project, Kendi Kendine Makro Seviyede İyileşebilir Özellikli Yeni Hibrit Sandviç Panel Geliştirilmesi ve

Statik, Anlık Dinamik ve Şok Yükleri Altında İyileşme Performansının İncelenmesi, 2019 - 2022

Deliktaş B., Akay S. K., Aykut Y., Durmuş A., Yazıcı M., TÜBİTAK Project, Self healing sandwich materials (TÜBİTAK-ARDEB 1001 Program supported project Grant No. 218M468), 2019 - 2022

## Patent

Yazıcı M., Özer H., SELF-HEALING SANDWICH COMPOSITE STRUCTURE, Patent, CHAPTER A Human Needs, The Invention Registration Number: TR 2020 22289 B , Standard Registration, 2023

Yazıcı M., Özer H., Güçlü H., Türkoğlu İ. K., ARAÇLARDA PASİF ÇARPIŞMA GÜVENLİK ELEMANLARINDA GÖZENEKLİ YAPILARIN KULLANILMASINI SAĞLAYAN SİSTEM, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, The Invention Recourse Number: 2021/012326 , Standard Registration, 2021

Yazıcı M., Güçlü H., Özer H., Türkoğlu İ. K., SYSTEM ENABLING USE OF POROSITY EMBODIMENTS IN PASSIVE COLLISION SECURITY MEMBERS IN VEHICLES, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, The Invention Recourse Number: PCT/TR2021/051113 , Standard Registration, 2021

Yazıcı M., Özer H., KENDİ KENDİNİ ONARABİLEN BİR SANDVIÇ KOMPOZİT YAPILANMASI, Patent, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, The Invention Recourse Number: 2020/22289 , Standard Registration, 2020

## Metrics

Publication: 28

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