

## Res. Asst. HARUN GÜÇLÜ

### Personal Information

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### Education Information

Doctorate, Bursa Uludağ University, Fen Bilimleri Enstitüsü, Fen Bilimleri Enstitüsü, Turkey 2016 - Continues

Postgraduate, Bursa Uludağ University, Fen Bilimleri Enstitüsü, Fen Bilimleri Enstitüsü, Turkey 2014 - 2016

Undergraduate, Bursa Uludağ University, Mühendislik Fakültesi, Makina Mühendisliği, Turkey 2009 - 2014

### Research Areas

Machine Design, Computer Aided Design and Manufacturing, Material, System Dynamics and Control, Vehicle Systems Dynamics, Mechatronics, Modeling and Simulation of Dynamic Systems, Mechanical Vibrations, Solid Mechanics, Fracture Mechanics, Finite Element Methods, Mechanical Testing, Continuous Mechanics, Composites, Nanomaterials

### Academic Titles / Tasks

Research Assistant, Bursa Uludağ University, Mühendislik Fakültesi, Otomotiv Mühendisliği, 2015 - Continues

### Articles Published in Journals That Entered SCI, SSCI and AHCI Indexes

- I. **Impact behavior of natural rubber based syntactic foam core sandwich structures**  
GÜÇLÜ H., Kasim H., Turkoglu I. K. , Can Y., Yazici M.  
MATERIALS TESTING, vol.63, no.11, pp.1052-1057, 2021 (Journal Indexed in SCI)
- II. **Gradually collapsible crash boxes with bonded aluminium tubes**  
Can Y., Güçlü H., Kasar I., Yazıcı M.  
EMERGING MATERIALS RESEARCH, vol.9, no.4, pp.1113-1120, 2020 (Journal Indexed in SCI)
- III. **Finite-element analysis of EPP foam core/self-reinforced PP sandwich structures**  
GÜÇLÜ H., Turkoglu I. K. , Can Y., YAZICI M.  
EMERGING MATERIALS RESEARCH, vol.9, no.4, pp.1250-1257, 2020 (Journal Indexed in SCI)
- IV. **Impact Loading Performance of Polymer Foam Core Aluminium Sandwich Panels**  
Can Y., Guclu H., Turkoglu I. K. , Kasar I., Yazici M.  
ACTA PHYSICA POLONICA A, vol.135, no.4, pp.769-771, 2019 (Journal Indexed in SCI)
- V. **Polymer Foam Core Aluminum Sandwich Lightweight Car Hood for Pedestrian Protection**  
Can Y., Yazici M., GÜÇLÜ H.  
ACTA PHYSICA POLONICA A, vol.134, no.1, pp.231-234, 2018 (Journal Indexed in SCI)
- VI. **Investigation of the Hyperelastic Material Coated Steel Car Hood Concerning Pedestrian Head Impact Protection using Finite Element Method**  
Yazici M., Can Y., GÜÇLÜ H.  
ACTA PHYSICA POLONICA A, vol.134, no.1, pp.238-240, 2018 (Journal Indexed in SCI)
- VII. **Optimal Design of Light Commercial Vehicle Headlamp for Pedestrian Protection**  
Yazici M., GÜÇLÜ H., Karen I., Kandirmis I. K. , Malkoc S., Buyukluoglu O. F.

## Articles Published in Other Journals

- I. **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 (IJCESEN), vol.3, no.1, pp.44-46, 2017 (Refereed Journals of Other Institutions)
- II. **Finite Element Analysis of Impact Loaded Polymer Composites Side Door Anti-intrusion Bar**  
Yazıcı M., Türkoğlu İ. K. , Karen İ., Güçlü H., Somyak C.  
International Journal of Automation, Mechatronics Robotics, vol.3, no.1, pp.50-55, 2016 (Refereed Journals of Other Institutions)
- III. **Numerical Analysis of Light Commercial Vehicle Headlamp for Pedestrian Safety**  
YAZICI M., GÜÇLÜ H., KAREN İ., TÜRKOĞLU İ. K. , SALİM Y., SERTAÇ M.  
International Journal of Natural and Engineering Sciences, vol.9, no.2, pp.34-38, 2015 (Refereed Journals of Other Institutions)

## Books & Book Chapters

- I. **Predicting Damage Behavior of Self-Healing Sandwich Panels: Computational Modeling**  
Yazıcı M., Güçlü H., Deliktaş B.  
in: Handbook of Damage Mechanics: Nano to Macro Scale for Materials and Structures, Voyiadjis G.Z., Editor, Springer Nature, Zug, pp.197-211, 2022

## Refereed Congress / Symposium Publications in Proceedings

- I. **Performance of Blast Loaded Thermoplastic Composite Ultra-light Sandwich Panels**  
Güçlü H., Matyar B., Can Y., Yazıcı M.  
8th INTERNATIONAL CONFERENCE ON COMPUTATIONAL AND EXPERIMENTAL SCIENCE AND ENGINEERING (ICCESEN-2021), Antalya, Turkey, 27 - 31 October 2021, pp.1
- II. **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
- III. **PERFORMANCE OF AUXETIC CORE 3D PRINTED SANDWICH STRUCTURES UNDER ACOUSTIC AND SHOCK WAVES**  
Türkoğlu İ. K. , Güçlü H., Yazıcı M.  
MECHCOMP7 - 7th International Conference on Mechanics of Composites, Porto, Portugal, 1 - 03 September 2021, vol.1, no.1, pp.18
- IV. **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
- V. **Finite Element Analysis on Flexural Behavior of EPP Foam Core Self-Reinforced Polypropylene Thermoplastic Sandwich Structures**  
Güçlü H., Türkoğlu İ. K. , Can Y., Yazıcı M.  
6th INTERNATIONAL CONFERENCE ON COMPUTATIONAL AND EXPERIMENTAL SCIENCE AND ENGINEERING (ICCESEN-2019), Antalya, Turkey, 23 - 27 October 2019, vol.1, pp.195

- VI. **NUMERICAL AND EXPERIMENTAL STUDY OF DC04 SHEETMETAL FORMABILITY**  
Vatansevver H., Kamas T., Güçlü H., Yazıcı M.  
The International Conference of Materials and Engineering Technologies (TICMET'19), Gaziantep, Turkey, 10 - 12 October 2019, vol.1, pp.6
- VII. **Finite Element Simulation of the Telescopic Crash Boxes Designing by Adhesively Bonded Coaxial Aluminum Tubes**  
Can Y., Güçlü H., Kasar İ., Yazıcı M.  
5th International Conference on Computational and Experimental Science and Engineering (ICCESSEN-2018), Antalya, Turkey, 12 - 16 October 2018
- VIII. **Finite Element Analysis of the Impact Behaviour of Natural Rubber Based Syntactic Foam Core Sandwich Structure with Aluminum Skin**  
Yazıcı M., Kasım H., Güçlü H., Türkoğlu İ. K. , Can Y.  
5th International Conference on Computational and Experimental Science and Engineering (ICCESSEN-2018), Antalya, Turkey, 12 - 16 October 2018
- IX. **Continuous Carbon Fiber/Polypropylene Thermoplastic Composite Telescopic Crash Box for a Passenger Car**  
Can Y., Güçlü H., Türkoğlu İ. K. , Yazıcı M.  
21th International Conference on Composite Structures, Bologna, Italy, 4 - 07 September 2018
- X. **Comparative Study On Quasi-static and Impact Load Performance of Cubic, Pyramidal, and Hexagonal CellShaped Carbon Fiber/ Polypropylene Thermoplastic Composite Truss Lattice Core Sandwich Structures with CarbonFiber/Polypropylene Laminated Composite Face Sheets**  
Akbulut G., Güçlü H., Türkoğlu İ. K. , Korkmaz B., Can Y., Yazıcı M.  
4th International Conference on Mechanics of Composites, Madrid, Spain, 9 - 12 July 2018
- XI. **Impact Loading Performance of Polymer Foam Core Aluminum Sandwich Panels**  
Can Y., Güçlü H., Türkoğlu İ. K. , Yazıcı M.  
8th International Advances in Applied Physics and Materials Science Congress Exhibition, Muğla, Turkey, 24 - 30 April 2018
- XII. **THE BENDING RESPONSE OF CARBON FIBER REINFORCED THERMOPLASTIC MONO-COMPOSITE PYRAMIDAL LATTICE TRUSS CORE SANDWICHSTRUCTURES**  
Güçlü H., Can Y., Türkoğlu İ. K. , Yazıcı M.  
9th International Automotive Technologies Congress, OTEKON 2018, Bursa, Turkey, 7 - 08 May 2018
- XIII. **QUASI-STATIC AND DYNAMIC CHARACTERISATION OF HOTMELTETHYLENE/VINYL ACETATE COPOLYMER (EVA) ADHESIVES AND SELFREINFORCED COMPOSITE LAMINATES /EXPANDED POLYPROPYLENE FOAMSANDWICH BEAMS**  
Türkoğlu İ. K. , Güçlü H., Yazıcı M.  
9th International Automotive Technologies Congress, OTEKON 2018, Bursa, Turkey, 7 - 08 May 2018
- XIV. **Experimental Investigation of the Open-Hole Effect on Self Reinforced Polypropylene Based Thermoplastic Composite Laminates**  
Türkoğlu İ. K. , Güçlü H., Kurtuluş O., Can Y., Yazıcı M.  
1st International Symposium on Light Alloys and Composite Materials (ISLAC'18), Karabük, Turkey, 22 - 24 March 2018
- XV. **Impact Response of Polymer Foam Core Aluminum Sandwich Panels for Pedestrian Friendly Car Hood**  
Güçlü H., Yücel C., Yazıcı M.  
4th International Conference on Computational and Experimental Science and Engineering, Antalya, Turkey, 4 - 08 October 2017
- XVI. **Quasi-Static and Dynamic Characterisation of Hotmelt Ethylene/Vinyl Acetate Copolymer (EVA) Adhesives**  
Yazıcı M., Kandirmiş İ. K. , Güçlü H., Can Y.  
4th International Conference on Computational and Experimental Science and Engineering (ICCESSEN-2017), Antalya, Turkey, 4 - 08 October 2017

- XVII. Mechanical Performance of Carbon Fiber Reinforced Thermoplastic Composite Pyramidal Lattice Truss Core Sandwich Structures**  
Can Y., Güçlü H., Kandirmiş İ. K. , Yazıcı M.  
20th International Conference on Composite Structures, Paris, France, 4 - 07 September 2017, pp.68
- XVIII. Lateral Side Impact Performance of Rubber Based Syntactic Foam Core Sandich Panels**  
Yazıcı M., Kasım H., Güçlü H., Kandirmiş İ. K. , Can Y.  
3rd International Conference on Mechanics of Composites (MECHCOMP3), Bologna, Italy, 4 - 07 July 2017, pp.40
- XIX. Investigation of the Hyperelastic Material Coated Steel Car Hood Concerning Pedestrian Head Impact Protection by Finite Element Analysis**  
Yazıcı M., Yücel C., Güçlü H.  
7th International Advances in Applied Physics and Materials Science Congress Exhibition, Muğla, Turkey, 22 - 26 April 2017, pp.98
- XX. 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
- XXI. FINITE ELEMENT ANALYSIS OF IMPACT LOADED POLYMER COMPOSITES SIDE DOOR ANTI-INTRUSION BAR**  
Yazıcı M., Türkoğlu İ. K. , Karen İ., Güçlü H., Somyak C.  
4th International Conference on Advances in Civil, Structural and Mechanical Engineering-CSM2016, Birmingham, United Kingdom, 17 - 18 March 2016, pp.84-89
- XXII. 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
- XXIII. Numerical Analysis of Light Commercial Vehicle Headlamp for Pedestrian Safety**  
Yazıcı M., Güçlü H., Karen İ., Kandirmiş İ. K. , Yagoub S., Malkoç S.  
(ICNES 2015) INTERNATIONAL CONGRESS ON NATURALAND ENGINEERING SCIENCES, Sarajevo, Bosnia And Herzegovina, 9 - 13 September 2015, pp.39
- XXIV. Investigation of the Polymer Composite Side Door Anti-intrusionBar 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
- XXV. 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
- XXVI. 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., KANDİRMİŞ İ. K. , GÜÇLÜ H., KAREN İ.  
2nd International Conference on Computational and Experimental Science and Engineering (ICCESEN 2015), Antalya, Turkey, 14 - 19 October 2015
- XXVII. Optimal Design of Light Commercial Vehicle Headlamp for Pedestrian Protection**  
Yazıcı M., Güçlü H., Karen İ., Kandirmiş İ. K. , Malkoç S.  
2nd International Conference on Computational and Experimental Science and Engineering (ICCESEN 2015), Antalya, Turkey, 14 - 19 October 2015, pp.274
- XXVIII. 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

- XXIX. **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
- XXX. **Mechanical Properties of Automobile Head Lamp Thermoplastic Materials under Extreme Temperatures**  
Yazıcı M., Karen İ., Coşkun S., Malkoç S., Kandirmiş İ. K. , Güçlü H.  
5th International Advances in Applied Physics and Materials Science Congress Exhibition (APMAS2015), Muğla, Turkey, 16 - 19 April 2015
- XXXI. **Mechanical Characterization of Usibor 1500 Hot Stamping Steel**  
Güçlü H., Kandirmiş İ. K. , Eşiyok F., Karen İ., Can Y., Yazıcı M.  
5th International Advances in Applied Physics and Materials Science Congress Exhibition (APMAS2015), Muğla, Turkey, 16 - 19 April 2015

## Supported Projects

Güçlü H., Yazıcı M., TUBITAK Project, Piezo-Polimer Nano Kompozit Enerji Üretici Geliştirilmesi, 2022 - 2022  
Yazıcı M., Akay S. K. , Deliktaş B., Durmuş A., Aykut Y., TUBITAK Project, Development of a novel macro level selfhealing hybrid sandwich panels and determination of the panels' healing performance under static, impact and shock loading conditions., 2019 - 2022

## Patent

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 , Initial 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 , Initial Registration, 2021

## Citations

Total Citations (WOS):6  
h-index (WOS):1