

## Assoc. Prof. MÜMİN TUTAR

### Personal Information

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### International Researcher IDs

ScholarID: WLFVZmEAAAAJ

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Publons / Web Of Science ResearcherID: J-2753-2016

ScopusID: 54406234300

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### Education Information

Doctorate, Bursa Uludağ University, MÜHENDİSLİK FAKÜLTESİ, MAKİNA MÜHENDİSLİĞİ, Turkey 2011 - 2017

Postgraduate, Bursa Uludağ University, MÜHENDİSLİK FAKÜLTESİ, MAKİNA MÜHENDİSLİĞİ, Turkey 2008 - 2011

Undergraduate, Pamukkale University, Faculty Of Technical Education, Department Of Mechanics Education, Turkey 2004 - 2008

### Dissertations

Doctorate, Kaynaklı twip çeliklerinde mikroyapı ve mekanik özellikler arasındaki ilişkilerin araştırılması, 2017

Postgraduate, Plazma nitrülenmiş, PVD kaplanmış ve çift yüzey işlemi uygulanmış sıcak iş takım çeliklerinin aşınma davranışlarının araştırılması, 2011

### Research Areas

Mechanical Engineering, Construction and Manufacturing, Engineering and Technology

### Academic Titles / Tasks

Associate Professor, Bursa Uludağ University, Yenişehir İbrahim Orhan Myo, Makine Ve Metal Teknolojileri, 2024 - Continues

Assistant Professor, Bursa Uludağ University, Yenişehir İbrahim Orhan Myo, Makine Ve Metal Teknolojileri, 2023 - 2024

Assistant Professor, National Defense University, Air Non-Commissioned Officer Vocational School, Department Of Technical Programs, 2019 - 2023

Research Assistant, Bursa Uludağ University, MÜHENDİSLİK FAKÜLTESİ, MAKİNA MÜHENDİSLİĞİ, 2009 - 2017

### Academic and Administrative Experience

Program Koordinatörü, Bursa Uludağ University, YENİŞEHİR İBRAHİM ORHAN MYO, MAKİNE VE METAL TEKNOLOJİLERİ, 2023 - Continues

Head of Department, Bursa Uludağ University, YENİŞEHİR İBRAHİM ORHAN MYO, MAKİNE VE METAL TEKNOLOJİLERİ,

2023 - Continues

Program Koordinatörü, National Defense University, Hava Astsubay Meslek Yüksekokulu, Teknoloji Bilimleri Bölümü,  
2021 - 2023

## Courses

Malzeme Teknolojisi, Associate Degree, 2022 - 2023

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

- I. **A Comparative Evaluation of the Effects of Manufacturing Parameters on Mechanical Properties of Additively Manufactured PA and CF-Reinforced PA Materials**  
Tutar M.  
Polymers, vol.15, no.1, 2023 (SCI-Expanded)
- II. **Effect of tool pin profile on the hook geometry and mechanical properties of a friction stir spot welded AA6082-T6 aluminum alloy**  
AYDIN H., TUNÇEL O., Tutar M., BAYRAM A.  
TRANSACTIONS OF THE CANADIAN SOCIETY FOR MECHANICAL ENGINEERING, vol.45, no.2, pp.233-248, 2021 (SCI-Expanded)
- III. **Effect of welding current on microstructure and mechanical properties of 15% deformed TWIP steel joined with electrical resistance spot welding**  
AYDIN H., Tutar M., Davut K., BAYRAM A.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.35, no.2, pp.803-817, 2020 (SCI-Expanded)
- IV. **The effect of duplex surface treatment on erosion performance of QRO 90 Supreme steel**  
Tutar M., AYDIN H., DURMUŞ A.  
SADHANA-ACADEMY PROCEEDINGS IN ENGINEERING SCIENCES, vol.44, no.4, 2019 (SCI-Expanded)
- V. **Strain Effect on the Microstructure, Mechanical Properties and Fracture Characteristics of a TWIP Steel Sheet**  
AYDIN H., Tutar M., BAYRAM A.  
TRANSACTIONS OF THE INDIAN INSTITUTE OF METALS, vol.71, no.7, pp.1669-1680, 2018 (SCI-Expanded)
- VI. **Effect of Weld Current on the Microstructure and Mechanical Properties of a Resistance Spot-Welded TWIP Steel Sheet**  
Tutar M., AYDIN H., BAYRAM A.  
METALS, vol.7, no.12, 2017 (SCI-Expanded)
- VII. **Effect of welding parameters on microstructure and mechanical properties of aluminum alloy AA6082-T6 friction stir spot welds**  
Aydin H., Tuncel O., Umur Y., Tutar M., Bayram A.  
INDIAN JOURNAL OF ENGINEERING AND MATERIALS SCIENCES, vol.24, no.3, pp.215-227, 2017 (SCI-Expanded)
- VIII. **The Effect of Process Parameters on the Microstructure and Mechanical Performance of Fiber Laser-Welded AA5182 Aluminium Alloys**  
Yuce C., Tutar M., KARPAT F., YAVUZ N., Tekin G.  
STROJNISKI VESTNIK-JOURNAL OF MECHANICAL ENGINEERING, vol.63, no.9, pp.510-518, 2017 (SCI-Expanded)
- IX. **The Optimization of Process Parameters and Microstructural Characterization of Fiber Laser Welded Dissimilar HSLA and MART Steel Joints**  
Yuce C., Tutar M., KARPAT F., YAVUZ N.  
METALS, vol.6, no.10, 2016 (SCI-Expanded)
- X. **The optimisation of process parameters for friction stir spot-welded AA3003-H12 aluminium alloy using a Taguchi orthogonal array**

- Tutar M., AYDIN H., Yuce C., YAVUZ N., BAYRAM A.  
MATERIALS & DESIGN, vol.63, pp.789-797, 2014 (SCI-Expanded)
- XI. **The hydro-abrasive erosion wear behavior of duplex-treated surfaces of AISI H13 tool steel**  
Tutar M., AYDIN H., DURMUŞ A., BAYRAM A., YİĞİT K.  
SCIENCE CHINA-TECHNOLOGICAL SCIENCES, vol.57, no.5, pp.1040-1051, 2014 (SCI-Expanded)
- XII. **Effect of Rotational Speed and Dwell Time on Mechanical Properties of Dissimilar AA1050-AA3105 Friction Stir Spot Welded Joints**  
AYDIN H., Tuncel O., Yuce C., Tutar M., YAVUZ N., BAYRAM A.  
MATERIALS TESTING, vol.56, no.10, pp.818-825, 2014 (SCI-Expanded)
- XIII. **Effect of Welding Parameters on Tensile Properties and Fatigue Behavior of Friction Stir Welded 2014-T6 Aluminum Alloy**  
AYDIN H., Tutar M., DURMUŞ A., BAYRAM A., Sayaca T.  
TRANSACTIONS OF THE INDIAN INSTITUTE OF METALS, vol.65, no.1, pp.21-30, 2012 (SCI-Expanded)
- XIV. **Effect of the microstructure on the notched tensile strength of as-cast and austempered ductile cast irons**  
DURMUŞ A., AYDIN H., Tutar M., BAYRAM A., YİĞİT K.  
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, vol.226, pp.2214-2229, 2012 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Investigation of the Effect of Edge Width on Compressive Strength of FCC Structured Specimens Produced with FDM**  
TUNÇEL O., TUTAR M.  
Çukurova Üniversitesi Mühendislik Fakültesi dergisi, vol.38, no.3, pp.851-858, 2023 (Peer-Reviewed Journal)
- II. **Investigation of the effect of process parameters in CO2 laser cutting of PMMA material by Response Surface Method**  
KURT E., KARAÇAY U. E., TUTAR M.  
Uludağ Üniversitesi Mühendislik Fakültesi Dergisi, vol.28, no.2, pp.523-536, 2023 (Peer-Reviewed Journal)
- III. **AISI 304 PASLANMAZ ÇELİĞİN ELEKTRİK DİRENÇ NOKTA KAYNAĞI PARAMETRELERİNİN TAGUCHI YÖNTEMİYLE ÇOK AMAÇLI OPTİMİZASYONU**  
COŞGUN ŞAHİN E., GÜLÇİMEN ÇAKAN B., TUTAR M., Şahin U. O.  
Mühendislik Bilimleri ve Tasarım Dergisi, vol.11, 2023 (Peer-Reviewed Journal)
- IV. **Investigation of the Mechanical Properties of St52 and S460MC Steels by Gas Welding**  
OKUROĞULLARI Y., ÇAVUŞOĞLU O., TUTAR M., AYDIN H.  
International Journal of Automotive Science and Technology, vol.6, no.3, pp.221-225, 2022 (Peer-Reviewed Journal)
- V. **Investigation of Mechanical Properties of St52 and S460MC Steels Joined by Gas Welding**  
Okuroğullari Y., Çavuşoğlu O., TUTAR M., AYDIN H.  
International Journal of Automotive Science and Technology, vol.6, no.3, pp.221-225, 2022 (Scopus)
- VI. **Investigation of mechanical properties of notched samples manufactured by additive manufacturing method under different impact velocities**  
TUTAR M.  
Havacılık ve Uzay Teknolojileri Dergisi, vol.14, no.2, pp.127-131, 2021 (Peer-Reviewed Journal)
- VII. **The optimisation of welding parameters for electrical resistance spot-welded TWIP steels using a Taguchi method**  
Tutar M., AYDIN H., BAYRAM A.  
PAMUKKALE UNIVERSITY JOURNAL OF ENGINEERING SCIENCES-PAMUKKALE UNIVERSITESI MUHENDISLIK BILIMLERI DERGISI, vol.24, no.4, pp.650-657, 2018 (ESCI)
- VIII. **MECHANICAL PROPERTIES OF FRICTION STIR WELDED 3003 ALUMINUM ALLOY IN DIFFERENT**

## **WELDING CONDITIONS**

AYDIN H., TUTAR M., YİĞİT K., BAYRAM A.

International Journal of Mechanical And Production Engineering, vol.5, no.12, pp.92-96, 2017 (Peer-Reviewed Journal)

**IX. Multi objective Taguchi optimization approach for resistance spot welding of cold rolled TWIP steel sheets**

TUTAR M., AYDIN H., BAYRAM A.

JOURNAL OF PHYSICS: CONFERENCE SERIES, vol.885, no.1, 2017 (Scopus)

**X. MECHANICAL PERFORMANCE OF FRICTION STIR SPOT WELDED AA6082 T6 SHEETS**

TUNÇEL O., AYDIN H., TUTAR M., BAYRAM A.

International Journal of Mechanical And Production Engineering, vol.4, no.1, pp.114-118, 2016 (Peer-Reviewed Journal)

## **Books & Book Chapters**

**I. OTOPILOT EĞİTİM SETİNİN UÇUŞ SİMÜLATÖRÜNE DÖNÜŞTÜRÜLMESİ**

TUTAR M., KARAKOÇAN M.

in: HAVACILIK TEKNOLOJİSİ VE UYGULAMALARI KİTABI, HARMANŞAH COŞKUN, HAVA HÜSEYİN TAMER, Editor, Ege Üniversitesi Yayınları, İzmir, pp.19-24, 2022

**II. DETERMINING THE EFFECT OF LAYER HEIGHT ON THE BONDING STRENGTH OF ADDITIVELY MANUFACTURED TENSILE SAMPLES**

TUTAR M., EMRE K.

in: HAVACILIK TEKNOLOJİSİ VE UYGULAMALARI KİTABI, HARMANŞAH COŞKUN, HAVA HÜSEYİN TAMER, Editor, Ege Üniversitesi Yayınları, İzmir, pp.195-202, 2022

**III. OPTIMIZATION OF INTERLAYER BOND STRENGTH OF ADDITIVELY MANUFACTURED POLYAMIDE SAMPLES**

TUTAR M.

in: Current Debates on Natural and Engineering Sciences 2, ÇOĞUN HİKMET Y., KARACAGİL ZEYNEL, Editor, Bilgin Kültür Sanat Yayınları, Ankara, pp.158-168, 2021

## **Refereed Congress / Symposium Publications in Proceedings**

**I. Anizotropy of Additively Manufactured Compression Samples**

TUTAR M., TÜFEKÇİ K.

10. International Congress on Engineering and Technology Management, İstanbul, Turkey, 14 - 15 October 2023, vol.26, pp.322-331

**II. Mechanical properties under compressive load of cross patterned PLA filament with different infill densities**

TUTAR M.

EUROASIA Congress on Scientific Researches and Recent Trends-7, Baku, Azerbaijan, 6 - 09 December 2020, vol.3, pp.49-55

**III. Investigation of mechanical properties of notched samples manufactured by additive manufacturing method under different impact velocities**

TUTAR M.

İzmir Democracy University International Engineering Symposium (IDU-IES 2020), İzmir, Turkey, 05 December 2020, vol.1, pp.123-124

**IV. The effect of infill pattern on mechanical properties of materials produced by fused deposition modeling**

DİNDAR Ç., ALTAY M., TUTAR M., AYDIN H.

International Marmara Sciences Congress (IMASCON 2020 - Autumn), Kocaeli, Turkey, 04 December 2020, vol.1, pp.464-470

- V. **An investigation into resonance frequency of a cylindrical Helmholtz resonator having same cavity volume but different diameter and length**  
TUTAR M., AYDIN T., TOSUN A.  
6. Uluslararası Multidisipliner Çalışmaları Kongresi (MultiCongress 2019), Gaziantep, Turkey, 26 April 2019, vol.1, pp.242
- VI. **A parametric study on the effect of neck length and neck angle on the resonance frequency of a cylindrical Helmholtz resonator**  
TUTAR M., AYDIN T., YORUK O.  
4th International Scientific Research Congress (UBAK 2019), Yalova, Turkey, 14 February 2019, vol.1, pp.1115
- VII. **Effect of anti-oxidant and cure system on the heat resistance of ACM rubber**  
SERTKOL KAVUS S., DONMEZ Z., AYDIN T., TUTAR M.  
Rubbercon2018, İstanbul, Turkey, 10 May 2018
- VIII. **30 DEFORME EDİLMİŞ TWIP ÇELİĞİNİN ELEKTRİK DİRENÇ PUNTA KAYNAĞINDA ELEKTROD BASKI KUVVETİNİN KAYNAK ÖZELLİKLERİ ÜZERİNDEKİ ETKİSİ**  
TUTAR M., AYDIN H., BAYRAM A.  
9th International Automotive Technologies Congress, Otekon 2018, Bursa, Turkey, 7 - 08 May 2018, pp.1392-1399
- IX. **The development of a high performance rubber turbocharger hose: A case study**  
SERTKOL KAVUS S., DONMEZ Z., AYDIN T., TUTAR M.  
3. International Conference On Advances in Mechanical Engineering (ICAME 2017), İstanbul, Turkey, 19 December 2017, vol.1, pp.494-493
- X. **Tool Pin Geometry Effect on Fracture Characteristics of 6082-T6 Friction Stir Spot Welds in Lap Shear Test**  
TUNÇEL O., AYDIN H., TUTAR M., BAYRAM A.  
2nd International Conference on Advanced Engineering Technologies, (ICADET 17), Bayburt, Turkey, 21 - 23 September 2017, pp.434-444
- XI. **Effect Of Welding Time On Weld Properties Of 30 Cold Rolled Twip Steel Resistance Spot Welds**  
AYDIN H., TUTAR M., BAYRAM A.  
Istec 2017 Europe-international Science And Technology Conference, Berlin, Germany, 17 July 2017 - 19 January 2018, pp.300-306
- XII. **Multi Objective Taguchi Optimization Approach For Resistance Spot Welding Of Cold Rolled Twip Steel Sheets**  
TUTAR M., AYDIN H., BAYRAM A.  
The 6th International Conference On Manufacturing Engineering And Process, Lizbon, Portugal, 27 - 29 May 2017, pp.53-57
- XIII. **Influence of Tool Pin Profile on Mechanical Properties of 6082-T6 Friction Stir Spot Welds**  
AYDIN H., TUNÇEL O., TUTAR M., BAYRAM A.  
3rd International Conference on Engineering and Natural Science (ICENS 2017),Budapest, Hungary, May 2017, Budapest, Hungary, 3 - 07 May 2017, pp.334-339
- XIV. **Mechanical Properties of Dissimilar 5754-H22/6082-T6 Aluminum Alloy Lap Joints by FSSW**  
TUNÇEL O., YİĞİT K., TUTAR M., AYDIN H.  
3rd International Conference on Engineering and Natural Science (ICENS 2017), Budapest, Hungary, 3 - 07 May 2017, pp.61-67
- XV. **Multi objective Taguchi optimization approach for resistance spot welding of cold rolled TWIP steel sheets**  
Tutar M., AYDIN H., BAYRAM A.  
6th International Conference on Manufacturing Engineering and Process (ICMEP), Lisbon, Portugal, 27 - 29 May 2017, vol.885
- XVI. **Weld Current Effect on the Tensile Strength of Cold Rolled TWIP980 Steel Joints Welded by Resistance Spot Welding**

AYDIN H., TUTAR M., BAYRAM A.

3th International Conference on Advanced Technology & Sciences ICAT'16, Konya, Turkey, 1 - 03 September 2016, pp.1247-1251

**XVII. THE INFLUENCE OF WELDING TIME ON MECHANICAL PROPERTIES OF RESISTANCE SPOT WELDED TWIP STEELSHEETS**

AYDIN H., TUTAR M., BAYRAM A.

XIII INTERNATIONAL SCIENTIFIC CONGRESS MACHINES. TECHNOLOGIES. MATERIALS. 2016 SUMMER SESSION, Varna, Bulgaria, 14 - 17 September 2016, vol.24, pp.16-19

**XVIII. A COMPARISON OF FRICTION CHARACTERISTICS OF VARIOUS SURFACE TREATED HOT WORK TOOL STEEL**

TUTAR M., BAYRAM A.

XIII INTERNATIONAL CONGRESS SUMMER SESSION "MACHINES. TECHNOLOGIES. MATERIALS", Varna, Bulgaria, 14 - 17 September 2016

**XIX. Otomotiv sanayinde kullanılan TWIP çeliğinin elektrik direnç punta kaynağında elektrod baskı kuvvetinin mekanik özelliklere etkisi**

AYDIN H., TUTAR M., BAYRAM A.

OTEKON 2016 8. Otomotiv Teknolojileri Kongresi, Bursa, Turkey, 23 - 24 May 2016

**XX. Weld Current Effect on the Mechanical Properties of Resistance Spot Welded TWIP980 Steel Sheets**

TUTAR M., AYDIN H., BAYRAM A.

International Research Symposium on Recent Innovations in Engineering Science and Technology, Paris, France, 9 - 10 March 2016, vol.5, pp.12-17

**XXI. Mechanical Performance Of Friction Stir Spot Welded AA6082 T6 Sheets**

TUNÇEL O., AYDIN H., TUTAR M., BAYRAM A.

4th IASTEM International Conference, Amsterdam, Netherlands, 12 November 2015, pp.62-66

**XXII. Influence of welding parameters on mechanical properties and microstructure of friction stir spot welded AA5754 Aluminium alloys**

TUTAR M., AYDIN H., YÜCE C., TUNÇEL O., YAVUZ N., BAYRAM A.

15. International Materials Symposium, Denizli, Turkey, 15 October 2014

**XXIII. Farklı türdeki yüksek mukavemet çeliklerinin punta kaynağı ile birleştirilmesinde kaynak zamanı ve mekanik özellikler arasındaki korelasyonlar**

AYDIN H., DURGUN İ., TUTAR M., BAYRAM A.

Otomotiv Teknolojileri Kongresi (OTEKON14), Bursa, Turkey, 26 May 2014, vol.1, pp.149

**XXIV. Effect of rotational speed and dwell time on mechanical properties of dissimilar AA1050-AA3105 joints produced by friction stir spot welding**

AYDIN H., TUNÇEL O., YÜCE C., TUTAR M., YAVUZ N., BAYRAM A.

3. International Conference on Welding Technologies and Exhibition (ICWET 2014), Manisa, Turkey, 21 May 2014

**XXV. Plazma nitrürlemenin sac delme kalıplarında kullanılan zımbaların aşınma davranışı üzerindeki etkisi**

AYDIN H., SARAÇOĞLU M. H., DURMUŞ A., TUTAR M., BAYRAM A.

5. Otomotiv Teknolojileri Kongresi (OTEKON 2010), Bursa, Turkey, 07 June 2010, vol.2010, pp.43-50

## Supported Projects

Tutar M., Aydın T., TUBITAK Project, Turbo sistemlerde kompresör çıkışına yerleştirilecek, 1250-2600 Hz frekans aralığında 20 dB ses iletim kaybı sağlayacak rezonatör tasarımı ve geliştirilmesi, 2018 - 2021

Aydın H., Bayram A., TUBITAK Project, Farklı Deformasyon Oranlarındaki TWIP Saclarında Elektrik Direnç Punta Kaynak Parametrelerinin İçyapı Ve Mekanik Özelliklere Bağlı Olarak Optimizasyonu, 2014 - 2017

Tutar M., Aydın H., Tunçel O., Bayram A., Project Supported by Higher Education Institutions, Otomotiv Sanayinde Kullanılan AA6082 Alüminyum Alaşımının Sürtünme Karıştırma Nokta Kaynağındaki Parametrelerin Mekanik Özelliklere ve Mikro-Yapılara Olan Etkilerinin Araştırılması, 2014 - 2016

Tutar M., Bayram A., Serbest A. K., Industrial Thesis Project, Metal Kauçuk Malzeme Çiftinin Sonradan Yapıştırma Yöntemi

Kullanılarak Yapıştırma Parametrelerinin İncelenmesi, 2011 - 2012

## Patent

Tutar M., Aydın T., BİR SPİGOT, Utility Model, CHAPTER F Mechanical engineering; Lighting; Heating; Weaponry; Destroyed Materials, The Invention Registration Number: 2019 09882 , Standard Registration, 2021

## Scientific Refereeing

Technopark, Bursa Uludağ University, Turkey, January 2023

Technopark, Bursa Uludağ University, Turkey, December 2022

Technopark, Bursa Uludağ University, Turkey, December 2022

Technopark, Bursa Uludağ University, Turkey, December 2022

TÜBİTAK International Multi-Cooperation Project, ERA.NET Project, Hacettepe University, Turkey, August 2021

TÜBİTAK International Multi-Cooperation Project, ERA.NET Project, Yildiz Technical University, Turkey, August 2021

TÜBİTAK International Multi-Cooperation Project, ERA.NET Project, EGE SONİK TAHRİBATSIZ MUAYENE EGİTİM VE DANISMANLIK HİZMETLERİ LIMITED SİRKETİ, Turkey, August 2021

TÜBİTAK International Multi-Cooperation Project, ERA.NET Project, Sabanci University, Turkey, August 2021

TÜBİTAK International Multi-Cooperation Project, ERA.NET Project, Yildiz Technical University, Turkey, August 2021

TÜBİTAK International Multi-Cooperation Project, ERA.NET Project, Asas Alüminyum San Ve Tic A.s., Turkey, August 2021

TÜBİTAK International Bilateral Joint Cooperation Program Project, 2535 TÜBİTAK-İRAN MSRT, Iskenderun Technical University, Turkey, March 2021