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Education Information

Doctorate, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Makine Mühendisliği (Dr), Turkey 2012 - 2017

Postgraduate, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Makine Mühendisliği (YI) (Tezli), Turkey 2009 - 2012

Undergraduate, Eskisehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, Makine Mühendisliği Bölümü, Turkey 2006 - 2009

Dissertations

Doctorate, Mikroalaşımli 38MnVS6 çeliğine uygulanan farklı yüzey ve ısı işlemlerin mekanik özelliklere etkilerinin araştırılması, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Makine Mühendisliği (Dr), 2017

Postgraduate, AISI 1020 çeliğinin frezelenmesinde katı yağlayıcı kullanımının araştırılması, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Makine Mühendisliği (YI) (Tezli), 2012

Research Areas

Construction and Manufacturing

Academic Titles / Tasks

Associate Professor, Eskisehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, MAKİNE MÜHENDİSLİĞİ BÖLÜMÜ, 2021 - Continues

Assistant Professor, Eskisehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, MAKİNE MÜHENDİSLİĞİ BÖLÜMÜ, 2017 - 2021

Research Assistant, Eskisehir Osmangazi University, MÜHENDİSLİK-MİMARLIK FAKÜLTESİ, MAKİNE MÜHENDİSLİĞİ BÖLÜMÜ, 2009 - 2017

Courses

Teknik Resim II, Undergraduate, 2017 - 2018

İmalat Teknolojileri, Undergraduate, 2017 - 2018

İmalat Teknolojileri Araştırmaları, Undergraduate, 2017 - 2018
Makine Mühendisliğinde Tasarım II, Undergraduate, 2017 - 2018
Teknik Resim I, Undergraduate, 2017 - 2018, 2016 - 2017
Triboloji, Postgraduate, 2017 - 2018
İmalat Mühendisliği, Undergraduate, 2017 - 2018

Advising Theses

KILIÇAY K., ALAŞIMLI ÇELİKLERDE PLAZMA ARKI İLE HIZLI YÜZEY SERTLEŞTİRME İŞLEMLERİNİN ARAŞTIRILMASI, Postgraduate, M.EMRE(Student), 2020
KILIÇAY K., Soğuk Gaz Dinamik Sprey Teknolojisiyle Hasarlı Alüminyum Yüzeylerin Onarımının Araştırılması, Postgraduate, S.CAN(Student), 2019
KILIÇAY K., A356 ve A357 döküm alüminyum alaşımlarının mekanik özelliklerinin yüksek sıcaklıkta incelenmesi, Postgraduate, A.ARDA(Student), 2019

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **A practical approach to fabrication of nano-Al₂O₃ reinforced MMC coatings by cold spray: Characterization of nanomechanical and tribological performance**
KILIÇAY K.
Materials Today Communications, vol.39, 2024 (SCI-Expanded)
- II. **Enhancement on the Tool Steel's Surface Properties by Eta Carbide Distribution Mechanism of Cryogenic Treatment**
KAYA E., KILIÇAY K., ULUTAN M.
TRANSACTIONS OF THE INDIAN INSTITUTE OF METALS, vol.73, no.10, pp.2673-2682, 2020 (SCI-Expanded)
- III. **Microstructure and Tribological Properties of Tool Steel AISI O2 After Thorough Cryogenic Heat Treatment**
KAYA E., KILIÇAY K., ULUTAN M.
METAL SCIENCE AND HEAT TREATMENT, vol.62, pp.399-404, 2020 (SCI-Expanded)
- IV. **Microstructural and tribological properties of induction clad NiCrBSi/WC composite coatings**
KILIÇAY K., BUYTOZ S., ULUTAN M.
SURFACE & COATINGS TECHNOLOGY, vol.397, 2020 (SCI-Expanded)
- V. **Development of protective MMC coating on TZM alloy for high temperature oxidation resistance by LPCS**
Kılıçay K.
SURFACE & COATINGS TECHNOLOGY, vol.393, 2020 (SCI-Expanded)
- VI. **Improvement of microstructural and tribological properties of APS carbide coatings via PTA surface melting**
KILIÇAY K., KAYA E.
TRANSACTIONS OF THE INSTITUTE OF METAL FINISHING, vol.98, no.3, pp.129-137, 2020 (SCI-Expanded)
- VII. **Effect of cryogenic treatment on tribological behaviour of TiC composite coatings**
KILIÇAY K., ULUTAN M.
SURFACE ENGINEERING, vol.33, no.12, pp.886-894, 2017 (SCI-Expanded)
- VIII. **Microstructure and wear behaviour of plasma transferred arc (PTA)-deposited FeCrC composite coatings on AISI 5115 steel**
Ulutan M., KILIÇAY K., Celik O. N., ER Ü.
JOURNAL OF MATERIALS PROCESSING TECHNOLOGY, vol.236, pp.26-34, 2016 (SCI-Expanded)
- IX. **Plasma transferred arc surface modification of atmospheric plasma sprayed ceramic coatings**
ULUTAN M., KILIÇAY K., KAYA E., BAYAR İ.

JOURNAL OF MECHANICAL SCIENCE AND TECHNOLOGY, vol.30, no.8, pp.3813-3818, 2016 (SCI-Expanded)

- X. **Investigation of the solid lubrication effect of commercial boron-based compounds in end milling**
KILIÇAY K., ULUTAN M.
INTERNATIONAL JOURNAL OF PRECISION ENGINEERING AND MANUFACTURING, vol.17, no.4, pp.517-524, 2016 (SCI-Expanded)

Articles Published in Other Journals

- I. **INVESTIGATION OF THE EFFECT OF CRYOGENIC HEAT TREATMENT ON EXPERIMENTAL DYNAMIC TOUGHNESS IN Ti6Al4V ALLOYS**
ÇİMEN C., KILIÇAY K., KAYA E.
Eskişehir Osmangazi Üniversitesi mühendislik ve mimarlık fakültesi dergisi (online), vol.32, no.1, pp.1215-1220, 2024 (Peer-Reviewed Journal)
- II. **Investigation Of Tribological And Mechanical Performance Of Cryogenic Treated Medium Carbon Steel, 38mnvs6**
KAYA E., ULUTAN M., KILIÇAY K., BAYAR İ.
Journal Of The Balkan Tribological Association, vol.617, no.627, pp.26-4, 2020 (Scopus)
- III. **Plazma Transferli Ark (PTA) Yöntemi ile Üretilen WC Kompozit Kaplamalarda Enerji Girdisinin Mikroyapısal ve Tribolojik Özelliklere Etkisi**
KILIÇAY K.
Bilecik Şeyh Edebali Üniversitesi Fen Bilimleri Dergisi, vol.7, no.1, pp.251-264, 2020 (Peer-Reviewed Journal)
- IV. **Experimental study on Tribological Performance of SiC Composite Coating Layers**
KILIÇAY K., ULUTAN M., KAYA E., BAYAR İ.
Journal Of The Balkan Tribological Association, vol.26, no.2, pp.390-400, 2020 (Scopus)

Books & Book Chapters

- I. **Compression Molding Method for Ulumina-Reinforced UHMWPE-Based Composites**
KAYA E., KILIÇAY K.
in: Modern Manufacturing Processes for Aircraft Materials, Gürgen Selim, Pruncu Catalin I., Editor, Elsevier, pp.29-42, 2023
- II. **Green Applications with an Advanced Manufacturing Method: Cold Spray Deposition Technology**
KILIÇAY K., DAYI S. C., KAYA E., GÜRGEN S.
in: Advanced Manufacturing Methods Smart Processes and Modeling for Optimization, Catalin I. Pruncu, Jamal Zbitou, Editor, CRC Press, Boca Raton, pp.27-56, 2022

Refereed Congress / Symposium Publications in Proceedings

- I. **Investigation of Microstructural and Tribological Properties of Different Atmospheric Plasma Spray Coatings**
Çakar B., KILIÇAY K., DAYI S. C.
15th International Istanbul Scientific Research Congress on Life, Engineering, and Applied Sciences, İstanbul, Turkey, 9 - 11 December 2023
- II. **Plazma Transferli Ark Kaynak Tekniği ile Yüzey Özellikleri Geliştirilmiş Ti6Al4V Alaşımının Mikroyapısal ve Mekanik Özelliklerinin İncelenmesi**
GÜLEÇ T., KILIÇAY K., KAYA E.
10th International Congress on Engineering and Technology Management, İstanbul, Turkey, 14 - 15 October 2023
- III. **Parametric Simulations for Residual Stresses and Distortions of Inconel 625 Fabricated by Laser**

Powder Bed Fusion Additive Manufacturing

POYRAZ Ö., YASA E., TUNÇ L. T., KILIÇAY K.

AMC TURKEY 2021, İstanbul, Turkey, 9 - 10 September 2021

- IV. **Investigation on the Performance of Al7075 Alloy Surface Repaired by Cold Spray Coating Technology**
Kılıçay K., Dayı S. C.
The 5th International Conference on Material Engineering and Manufacturing (ICMEM 2021), Chiba, Japan, 16 April 2021
- V. **Experimental Investigation of Tribological Performance of Titanium–Zirconium–Molybdenum Alloy at Different Hertzian Contact Pressures**
KILIÇAY K.
3. Internatinonal Conference on Materials Science, Mechanical and Automotive Engineerings and Technology, IMSMATEC'20, (Online Sempozyum), İstanbul, Turkey, 24 - 26 June 2020
- VI. **Investigation of the Effect of Different Process Parameters on the Machinability of Ti6Al4V Alloy By Finite Element Method**
KAYA E., KILIÇAY K.
3. International Conference on Materials Science, Mechanical and Automotive Engineerings and Technology , IMSMATEC'20, (Online Sempozyum), 24 - 26 June 2020
- VII. **Effect of Hertzian Contact Pressure on Tribological Behaviour of Mild Carbon Steel**
GÜLEŞEN M., KILIÇAY K., KAYA E.
Proceedings of XII International scientific conference“Tribology for Mechanical Engineering” TRIBOMASH 2018, Moscow, Russia, Russia, 19 - 21 October 2018
- VIII. **Experimental Investigation of Different Hard Carbide Layers Coated by Flame Spray Technic on 90MnCrV8**
KILIÇAY K., BAYAR İ., KAYA E., ULUTAN M.
The International Conference on Materials Science, Mechanical and Automotive Engineerings and Technology, İzmir, Turkey, İzmir, Turkey, 10 - 12 April 2018
- IX. **Effect of Different Heat Inputs on Microstructure and Hardness in PTA Layers**
KILIÇAY K., BAYAR İ., KAYA E., ULUTAN M.
The International Conference on Materials Science, Mechanical and Automotive Engineerings and Technology, İzmir, Turkey, İzmir, Turkey, 10 - 12 April 2018
- X. **A Comparative Study of Quantitative Image Analyze and X-Ray Diffraction Methods for Carbide Amount in composite coatings on steel**
KILIÇAY K., KAYA E., BAYAR İ., ULUTAN M.
1st International Symposium On Innovative Approches In Scientific Studies, Antalya, Turkey, Antalya, Turkey, 11 - 13 April 2018
- XI. **Numerical and Analytical Analysis of Hertz Contact Pressure in ASTM G99 Wear Test**
KAYA E., KILIÇAY K., ULUTAN M.
1st International Symposium On Innovative Approches In Scientific Studies, Antalya, Turkey, Antalya, Turkey, 11 - 13 April 2018
- XII. **Precise Measurement of Wear Rate Method for ASTM G-99 Wear Test**
KAYA E., KILIÇAY K., BAYAR İ., ULUTAN M.
1st International Symposium On Innovative Approches In Scientific Studies, Antalya, Turkey, Antalya, Turkey, 11 - 13 April 2018
- XIII. **Investigation of Process Parameters of AISI 304 Fiber Cut with Fiber Laser**
BAYAR İ., KILIÇAY K., KAYA E., ULUTAN M., AKMAN D.
International Congress On Applied Science And technology, Astech'2017, Malaga, Spain, Malaga, Spain, 17 - 20 April 2017
- XIV. **Investigation of Microstructure and Tribological Properties of Molybdenum Coatings**
BAYAR İ., ULUTAN M., KILIÇAY K., KAYA E.
International Congress On Applied Science And technology, Astech'2017, Malaga, Spain, Malaga, Spain, 17 - 20 April

2017

- XV. **Investigation of Tribological and Mechanical Performance of Cryogenic Treated Medium Carbon Steel, 38MnVS6**

KAYA E., ULUTAN M., KILIÇAY K., BAYAR İ.

3rd International Iron and Steel Symposium (UDCS'17), Karabük, Turkey, Karabük, Turkey, 3 - 05 April 2017, pp.460-464

- XVI. **Experimental Study on Tribological Performance of SiC Composite Coating Layers**

KILIÇAY K., ULUTAN M., KAYA E., BAYAR İ.

3rd International Iron Steel Symposium (UDCS'17), Karabük, Turkey, Karabük, Turkey, 3 - 05 April 2017

- XVII. **EFFECT OF AUSTENITIZATION TEMPERATURE ON TRIBOLOGICAL BEHAVIOUR OF MICRO ALLOYED STEEL**

ULUTAN M., KILIÇAY K., KAYA E.

International Conference on Material Science and Technology in Cappadocia(IMSTEC 2016), 6 - 08 April 2016

Supported Projects

ULUTAN M., KILIÇAY K., Project Supported by Higher Education Institutions, Mikroalaşımli Çeliklere Uygulanan Farklı Yüzey ve Isıl İşlemlerin Mekanik ÖzelliklereEtkilerinin Araştırılması, 2015 - 2017

ER Ü., ULUTAN M., KILIÇAY K., ÇELİK O. N., Project Supported by Higher Education Institutions, Yüzeyi PTA Plazma Transferli Ark Kaynak Yöntemi İle Alaşımlandırılmış AISI 5115 Çeliğinin Mikroyapı ve Aşınma Özelliklerinin İncelenmesi, 2012 - 2015

Metrics

Publication: 33

Citation (WoS): 103

Citation (Scopus): 124

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H-Index (Scopus): 6