

Assoc. Prof. FATİH HAYATİ ÇAKIR

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: N-2368-2019

ScopusID: 57195283911

Yoksis Researcher ID: 187813

Education Information

Doctorate, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Makine Mühendisliği (Dr), Turkey 2015 - 2019

Postgraduate, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Makine Mühendisliği (YI) (Tezli), Turkey 2013 - 2014

Undergraduate, Istanbul Technical University, Makine Fakültesi, Makine Mühendisliği Bölümü, Turkey 2005 - 2010

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Titanyum Alaşımlarına Kriyojenik İşlemin Etkilerinin Araştırılması, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, 2019

Postgraduate, Hızlı tren ray malzemelerinde farklı ısıl işlemlerin mikroyapı ve aşınma özelliklerine etkilerinin araştırılması, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, Makine Mühendisliği (YI) (Tezli), 2014

Research Areas

Mechanical Engineering

Academic Titles / Tasks

Associate Professor, Eskisehir Osmangazi University, ESKİŞEHİR MESLEK YÜKSEKOKULU, MAKİNE VE METAL TEKNOLOJİLERİ BÖLÜMÜ, 2022 - Continues

Lecturer PhD, Eskisehir Osmangazi University, ESKİŞEHİR MESLEK YÜKSEKOKULU, MAKİNE VE METAL TEKNOLOJİLERİ BÖLÜMÜ, 2017 - 2024

Research Assistant, Anadolu University, Transportation Vocational School, Department Of Motor Vehicles And Transportation Technologies, 2016 - 2017

Research Assistant, Eskisehir Osmangazi University, FEN BİLİMLERİ ENSTİTÜSÜ, 2547 S.Kanununun 35.Madd.Çalışan, 2013

- 2016

Research Assistant, Anadolu University, Transportation Vocational School, Department Of Motor Vehicles And Transportation Technologies, 2013 - 2013

Academic and Administrative Experience

Assistant Director of Vocational School, Eskisehir Osmangazi University, ESKİŞEHİR MESLEK YÜKSEKOKULU, 2020 - 2022

Courses

Hidrolik Pnömatik, Associate Degree, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

CNC FREZE TEKNOLOJİSİ, Associate Degree, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018

MÜHENDİSLİK MALZEMELERİ, Undergraduate, 2021 - 2022

MAKİNE ELEMANLARI I, Undergraduate, 2021 - 2022

Geleneksel Olmayan İmalat Yöntemleri, Doctorate, 2020 - 2021

Mesleki Teknoloji II, Associate Degree, 2020 - 2021

Mesleki Teknoloji I, Associate Degree, 2020 - 2021

MAKİNE RESMİ, Associate Degree, 2019 - 2020, 2018 - 2019

CNC TORNA TEKNOLOJİSİ, Associate Degree, 2019 - 2020, 2018 - 2019, 2017 - 2018

Mühendislik Mekaniği, Undergraduate, 2020 - 2021

Havacılık Malzemelerinin Talaşlı İmalatı, Doctorate, 2020 - 2021

PROJE, Associate Degree, 2017 - 2018

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Evaluation of the performance of DLC Coatings (ta-C) of WC-Co tools while machining Al7075 alloy**
Çakır F. H., Yılmaz A., Sert Z.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS, PART C: JOURNAL OF MECHANICAL ENGINEERING SCIENCE, vol.1, no.1, pp.1-13, 2024 (SCI-Expanded)
- II. **An experimental study of the friction stir welding of Al 5083 H321 plates by using different process parameters**
Aybar K., Çakır F. H.
Canadian Metallurgical Quarterly, vol.63, no.2, pp.360-372, 2024 (SCI-Expanded)
- III. **Performance enhancement of Brass EDM electrodes with Cryogenic Treatment while machining the cold work steel AISI D2**
Çakır F. H., Ceritbinmez F.
SURFACE REVIEW AND LETTERS, vol.30, no.8, pp.1-23, 2023 (SCI-Expanded)
- IV. **Monitoring the wear of turning tools with the electromechanical impedance technique**
ÇAKIR F. H., ER Ü., TEKKALMAZ M.
JOURNAL OF INTELLIGENT MATERIAL SYSTEMS AND STRUCTURES, vol.34, no.11, pp.1341-1352, 2023 (SCI-Expanded)
- V. **Surface roughness classification of electro discharge machined surfaces with deep ensemble learning**
ANAGÜN Y., IŞIK Ş., Hayati Çakır F. H.
Measurement: Journal of the International Measurement Confederation, vol.215, 2023 (SCI-Expanded)
- VI. **Corrosion behavior of graphene coated Ti-6Al-4 V alloy by anodic plasma coating method**
PAT S., ÇAKIR F. H., ÖTEYAKA M. Ö.

INORGANIC CHEMISTRY COMMUNICATIONS, vol.147, 2023 (SCI-Expanded)

- VII. **Effect of infill pattern and ratio on the flexural and vibration damping characteristics of FDM printed PLA specimens**
Öteyaka M. Ö., Çakır F. H., Sofuoğlu M. A.
Materials Today Communications, vol.33, 2022 (SCI-Expanded)
- VIII. **The Effect of Cryogenic Treatment on Hardness, Toughness, and Tribological Properties of Austempered Ductile Iron with Different Nickel Contents**
ÇAKIR F. H.
INTERNATIONAL JOURNAL OF METALCASTING, vol.16, no.3, pp.1442-1454, 2022 (SCI-Expanded)
- IX. **Improving machining stability of AISI-4140 with magnetic field**
Sofuoglu M. A., Çakır F. H.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART C-JOURNAL OF MECHANICAL ENGINEERING SCIENCE, vol.236, no.11, pp.6095-6102, 2022 (SCI-Expanded)
- X. **Enhancing the adhesive bonding strength of Ti6Al4V sheets with fiber laser texturing**
Çakır F. H.
International Journal of Adhesion and Adhesives, vol.114, 2022 (SCI-Expanded)
- XI. **A new approach to monitor wear tracks propagation on-site with electromechanical impedance technique**
Tekkalmaz M., Er Ü., Çakır F. H., Bozkurt F.
Journal of Intelligent Material Systems and Structures, vol.33, no.2, pp.342-351, 2022 (SCI-Expanded)
- XII. **Improvement of tool life of a commercial drill bits by cryogenic treatment while machining widmanstatten Ti-6Al-4V**
SERT A., ÇAKIR F. H.
SURFACE TOPOGRAPHY-METROLOGY AND PROPERTIES, vol.9, no.4, 2021 (SCI-Expanded)
- XIII. **A new approach to monitoring the operational success of shot peening with electromechanical impedance technique**
TEKKALMAZ M., ER Ü., ÇAKIR F. H., Bozkurt F.
International Journal of Advanced Manufacturing Technology, vol.117, pp.3503-3513, 2021 (SCI-Expanded)
- XIV. **Improvement of the Machinability of Ti-6Al-4V Alloy Wire Electro Discharge Machining with Cryogenic Treatment**
ÇAKIR F. H., ÇELİK O. N.
Metals and Materials International, vol.27, no.9, pp.3529-3537, 2021 (SCI-Expanded)
- XV. **Wear and corrosion characterisation of AISI 1030, AISI 1040 and AISI 1050 steel coated with Shielded Metal Arc Welding (SMAW) and Plasma Transfer Arc (PTA) methods**
ÖTEYAKA M. Ö., Arslan A. E., ÇAKIR F. H.
Sadhana - Academy Proceedings in Engineering Sciences, vol.46, no.3, 2021 (SCI-Expanded)
- XVI. **Enhancing wear resistance of AISI 304 alloy with shot peening and investigation of corrosion behaviour in marine water**
ÇAKIR F. H., ÖTEYAKA M. Ö., ER Ü., Bozkurt F.
Transactions of the Institute of Metal Finishing, vol.99, pp.194-202, 2021 (SCI-Expanded)
- XVII. **Influence of Steel Fiber Addition on the Vibrational Characteristic of High Strength Cementitious Composites**
Sofuoğlu M. A., Çakır F. H., Celikten S.
Arabian Journal for Science and Engineering, vol.46, no.5, pp.4677-4685, 2021 (SCI-Expanded)
- XVIII. **An experimental design of spot welding of Ti6Al4V sheets and numerical modeling approach**
Bozkurt F., ÇAKIR F. H.
WELDING IN THE WORLD, vol.65, no.5, pp.885-898, 2021 (SCI-Expanded)
- XIX. **The Effect of Welding Parameters on Static and Dynamic Behaviors of Spot Welded Ti6Al4V Sheets**
Bozkurt F., ÇAKIR F. H., Schmidova E., Sunil Kumar M. R.
JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE, vol.29, no.11, pp.7468-7479, 2020 (SCI-Expanded)
- XX. **Influence of Cryogenic Treatment on Microstructure and Mechanical Properties of Ti6Al4V Alloy**

- Çakır F. H., Çelik O. N.
JOURNAL OF MATERIALS ENGINEERING AND PERFORMANCE, vol.29, no.10, pp.6974-6984, 2020 (SCI-Expanded)
- XXI. **Influence of shallow and deep cryogenic treatment on the corrosion behavior of Ti6Al4V alloy in isotonic solution**
ÖTEYAKA M. Ö., ÇAKIR F. H., ÇELİK O. N.
MATERIALS AND CORROSION-WERKSTOFFE UND KORROSION, vol.71, no.7, pp.1206-1215, 2020 (SCI-Expanded)
- XXII. **Tribological Properties of Cryo-Treated and Aged Ti6Al4V Alloy**
Çakır F. H., Çelik O. N.
TRANSACTIONS OF THE INDIAN INSTITUTE OF METALS, vol.73, no.3, pp.799-809, 2020 (SCI-Expanded)
- XXIII. **Optimization of different non-traditional turning processes using soft computing methods**
SOFUOĞLU M. A., ÇAKIR F. H., KUŞHAN M. C., ORAK S.
SOFT COMPUTING, vol.23, no.13, pp.5213-5231, 2019 (SCI-Expanded)
- XXIV. **An efficient approach by adjusting bounds for heuristic optimization algorithms**
SOFUOĞLU M. A., ÇAKIR F. H., GÜRGEN S.
SOFT COMPUTING, vol.23, no.13, pp.5199-5212, 2019 (SCI-Expanded)
- XXV. **Multi-criteria decision-making analysis of different non-traditional machining operations of Ti6Al4V**
GÜRGEN S., ÇAKIR F. H., SOFUOĞLU M. A., ORAK S., KUŞHAN M. C., Li H.
SOFT COMPUTING, vol.23, no.13, pp.5259-5272, 2019 (SCI-Expanded)
- XXVI. **Numerical investigation of hot ultrasonic assisted turning of aviation alloys**
SOFUOĞLU M. A., ÇAKIR F. H., GÜRGEN S., ORAK S., KUŞHAN M. C.
Journal of the Brazilian Society of Mechanical Sciences and Engineering, vol.40, no.3, 2018 (SCI-Expanded)
- XXVII. **Experimental investigation of machining characteristics and chatter stability for Hastelloy-X with ultrasonic and hot turning**
SOFUOĞLU M. A., ÇAKIR F. H., GÜRGEN S., ORAK S., KUŞHAN M. C.
INTERNATIONAL JOURNAL OF ADVANCED MANUFACTURING TECHNOLOGY, vol.95, pp.83-97, 2018 (SCI-Expanded)
- XXVIII. **Effect of Isothermal Bainitic Quenching on Rail Steel Impact Strength and Wear Resistance**
ÇAKIR F. H., ÇELİK O. N.
METAL SCIENCE AND HEAT TREATMENT, vol.59, pp.289-293, 2017 (SCI-Expanded)
- XXIX. **The effects of cryogenic treatment on the toughness and tribological behaviors of eutectoid steel**
ÇAKIR F. H., ÇELİK O. N.
JOURNAL OF MECHANICAL SCIENCE AND TECHNOLOGY, vol.31, no.7, pp.3233-3239, 2017 (SCI-Expanded)

Articles Published in Other Journals

- I. **Investigation of the Tribological and Mechanical Properties of Boron Steels in Terms of Potential Usage in Agricultural Applications**
BOZKURT F., ÇAKIR F. H., ER Ü.
Journal of Polytechnic, vol.24, no.6, pp.431-438, 2021 (ESCI)
- II. **Design and Economic Analysis of a Novel Hot Ultrasonic Machining System**
SOFUOĞLU M. A., GÜRGEN S., ÇAKIR F. H., ORAK S., KUŞHAN M. C.
JOURNAL OF POLYTECHNIC-POLITEKNIK DERGISI, vol.22, no.2, pp.277-282, 2019 (ESCI)
- III. **Yeni sıcak ultrasonik yardımcı imalat ünitesi tasarımı ve ekonomik analizi**
SOFUOĞLU M. A., GÜRGEN S., ÇAKIR F. H., ORAK S., KUŞHAN M. C.
Journal of Polytechnic, 2019 (Peer-Reviewed Journal)
- IV. **Machining of Hastelloy-X based on finite element modelling**
Çakır F. H., Sofuoğlu M. A., Gürgen S.
Advanced Engineering Forum, vol.30, 2018 (Peer-Reviewed Journal)
- V. **Urban Light Rail Transportation Systems Catenary Line Anti-Icing Applications, Laboratory and Field Tests**

ER Ü., ÇAKIR F. H.

Anadolu University Journal of Science and Technology-A Applied Sciences and Engineering, vol.19, no.2, pp.433-442, 2018 (Peer-Reviewed Journal)

- VI. **Maintenance Error Detection Procedure and A Case Study of Failure Analysis Locomotive Diesel Engine Bearings**
ÇAKIR F. H., SERT A., ÇELİK O. N., Dereoglu N.
JOURNAL OF FAILURE ANALYSIS AND PREVENTION, vol.18, no.2, pp.356-363, 2018 (ESCI)
- VII. **A New Approach To Chip Breaking Application In Turning Operation Using Variable Feed Rates**
ÇAKIR F. H., ÇELİK O. N.
Cumhuriyet Science Journal, vol.38, no.4, pp.188-196, 2017 (Peer-Reviewed Journal)
- VIII. **Enerji Verimliliği İçin Tren Direnci Formüllerinin Karşılaştırılması**
AKBAYIR Ö., ÇAKIR F. H.
Mehmet Akif Ersoy Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.8, no.1, pp.112-126, 2017 (Peer-Reviewed Journal)
- IX. **Metrobüs Sisteminin Enerji Kullanımı ve Çevreye Etkilerinin İncelenmesi, Elektrikli Araçlar ve Trolleybüslerin Kullanım Potansiyellerinin Araştırılması**
ÇAKIR F. H., AKBAYIR Ö.
Mehmet Akif Ersoy Üniversitesi Fen Bilimleri Enstitüsü Dergisi, vol.8, pp.97-102, 2017 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

- I. **Manyetik yardımcı tornalama işleminin deneysel olarak araştırılması**
YILMAZ E., ÇAKIR F. H., SOFUOĞLU M. A.
6. Uluslararası Mühendislik ve Teknoloji Yönetimi Kongresi, Turkey, 20 November 2021
- II. **Improving the Efficiency of Thermochemical Processes With Shot Peening**
Çakır F. H.
GLOBECER'21, Balıkesir, Turkey, 02 June 2021, pp.86-94
- III. **Dünyada ve Ülkemizde Sivil Havacılık Bakım Onarım ve Yenileme (BOY) Faaliyetleri**
GÜRGEN S., SOFUOĞLU M. A., ÇAKIR F. H., KUŞHAN M. C.
9. Uluslararası Bakım Teknolojileri Kongresi ve Sergisi-BTKS, Denizli, Turkey, 26 - 28 September 2019, vol.1, pp.185-191
- IV. **An experimental investigation of the ultrasonic-assisted machining of Ti-6Al-4V**
ÇAKIR F. H., GÜRGEN S., ORAK S., KUŞHAN M. C., SOFUOĞLU M. A.
UMTIK 2018, 3 - 06 July 2018
- V. **Investigation on Tribological Behavior of Laser Surface Treated Ti6Al4V Alloy**
ÇAVUŞOĞLU N., GÜRGEN S., ÇAKIR F. H., SERT A.
2nd International Conference on Tribology (TURKEYTRIB'18), İstanbul, Turkey, 18 - 20 April 2018, pp.233-236
- VI. **Investigations on the orthogonal cutting behavior of Ti6Al4V with micro-textured tool geometries using Finite Element Method**
KAYA E., ÇAKIR F. H., ÖZDEMİR Y.
International Conference on Mechanical and Aerospace Engineering, Cambridge, Canada, 19 - 20 December 2017, pp.18-22
- VII. **Shear strength of AA7075 lap joints after various joining methods**
GÜRGEN S., ÇAKIR F. H., SOFUOĞLU M. A., KUŞHAN M. C.
International Advanced Researches Engineering Congress, 16 - 18 November 2017
- VIII. **Kent İçi Hafif Raylı Ulaşım Sistemleri Katener Hatlarında Buzlanma Problemi Ve Bakım Katener Hatlarında Buzlanma Problemi Ve Bakım Yöntemlerinin İncelenmesi**
ER Ü., ÇAKIR F. H.
VIII. BAKIM TEKNOLOJİLERİ KONGRESİ ve SERGİSİ, Denizli, Turkey, 28 - 30 September 2017
- IX. **Numerical investigation of hot ultrasonic assisted turning of titanium alloy**

ÇAKIR F. H., GÜRGEN S., SOFUOĞLU M. A., KUŞHAN M. C., ORAK S.

3rd International Conference on Engineering and Natural Sciences (ICENS 2017), 3 - 07 May 2017

- X. **Numerical investigation of machining characteristics of Hastelloy-x**
SOFUOĞLU M. A., ÇAKIR F. H., GÜRGEN S., ORAK S., KUŞHAN M. C.
International Science and Technology Conference (ISTEC 2017), 17 - 19 July 2017
- XI. **ALLVAC 718 PLUSTM**
SOFUOĞLU M. A., ÇAKIR F. H., GÜRGEN S., KUŞHAN M. C.
ISER International Conference, 12th -13th January 2017, Jakarta, Indonesia, Jakarta, Indonesia, 12 - 13 January 2017, vol.1, pp.1-4
- XII. **Springback Behavior of AA6082T6 Tubes in Three-point Bending Operation**
SOFUOĞLU M. A., GÜRGEN S., ÇAKIR F. H., ORAK S.
7th International Conference on Engineering, Project, and Production Management (EPPM), Bialystok, Poland, 21 - 23 September 2016, vol.182, pp.658-664
- XIII. **Yenilikçi Bir İmalat Yöntemi Ultrasonik Yardımlı Sıcak Tornalama**
GÜRGEN S., SOFUOĞLU M. A., ÇAKIR F. H., KUŞHAN M. C., ORAK S.
1st International Conference on Engineering Technology and Applied Sciences, Afyon, Turkey, 21 - 22 April 2016
- XIV. **Applications of Composite Materials in A400M Fuselage**
KUŞHAN M. C., ÇAKIR F. H., GÜRGEN S., SOFUOĞLU M. A.
International Conference on Natural Science and Engineering (ICNASE'16), Kilis, Turkey, 19 - 20 March 2016
- XV. **Tribological Examination of Hardened Two Types Boron Steel for Railway Applications**
ÇAKIR F. H., BOZKURT F., ÇELİK O. N., ER Ü.
IWCEA 2015, 30 November - 01 December 2015
- XVI. **An optimization approach to prevent chatter vibrations**
SOFUOĞLU M. A., ÇAKIR F. H., GÜRGEN S., ORAK S., ÇELİK O. N., KUŞHAN M. C.
27 th TheIIER International Conference, St. Petersburg, Russia, 05 June 2015
- XVII. **Structural Improvement of Train Rail with Different Heat Treatment**
ÇAKIR F. H., ÇELİK O. N.
ISTANBUL UNIVERSITY WORLD CONFERENCE ON TECHNOLOGY, INNOVATION AND ENTREPRENEURSHIP
"ENTREPRENEURSHIP FOR TECHNOLOGY AND INNOVATION - BASED SUSTAINABLE DEVELOPMENT", 28 - 30 May 2015
- XVIII. **Flexible Fixturing Systems for Low Production Quantities**
SOFUOĞLU M. A., ÇAKIR F. H., GÜRGEN S., ORAK S., ÇELİK O. N., KUŞHAN M. C.
27th The IIER International Conference, St. Petersburg, Russia, 4 December - 05 June 2015

Supported Projects

KUŞHAN M. C., ÇAKIR F. H., ÇAKIR F. H., TUBITAK Project, Havacılık Malzemelerinin Tornalama İşleminde Düşük Frekansta Titreşim Kullanarak İşleme Performansının ve Talaş Kontrolünün İyileştirilmesi, 2017 - Continues
Çakır F. H., Project Supported by Other Private Institutions, 'Yenilikçi Platform Kapıların Mekanik Tasarımının Geliştirilmesi', 2020 - 2021

ÇELİK O. N., ÇAKIR F. H., ÇAKIR F. H., Project Supported by Higher Education Institutions, Titanyum alaşımlarına kriyojenik işlemin etkilerinin araştırılması, 2017 - 2019

Kuşhan M. C., Orak S., TUBITAK Project, Sıcak Ultrasonik Yardımlı Tornalama İşleminin Deneysel Ve Sayısal Olarak İncelenmesi (Numerical and experimental investigation of hot ultrasonic assisted turning process), 2016 - 2017

ÇAKIR F. H., ÇAKIR F. H., Project Supported by Higher Education Institutions, 201415040 nolu Kayma altında katılacak sivi takviyeli zırh kumaşının seramik toz katkıları ile balistik açıdan geliştirilmesi, 2014 - 2016

Metrics

Publication: 59

Citation (WoS): 271

Citation (Scopus): 338

H-Index (WoS): 10

H-Index (Scopus): 11

Non Academic Experience

Business Establishment Private, Tusaş Motor Sanayii, İmalat Mühendisliği

Tusaş Motor Sanayii