

Prof. SEDAT KARABAY

Personal Information

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Education Information

Doctorate, Kocaeli Üniversitesi, Fen Bilimleri Enstitüsü, Makine Mühendisliği Anabilim Dalı, Turkey 1995 - 2000

Post Graduate, Orta Doğu Teknik Üniversitesi, Fen Bilimleri Enstitüsü, Maden Mühendisliği (YI) (Tezli), Turkey 1982 - 1986

Research Areas

Engineering and Technology

Academic Titles / Tasks

Associate Professor, Kocaeli Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2008 - Continues

Research Assistant, Kocaeli Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 1984 - 1986

Academic and Administrative Experience

Kocaeli Üniversitesi, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2008 - Continues

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

- I. **Investigation of the effects of ultrasonic assisted drilling on tool wear and optimization of drilling parameters**
Yarar E., Karabay S.
CIRP Journal of Manufacturing Science and Technology, 2020 (Journal Indexed in SCI Expanded)
- II. **Machining behavior of multiple layer polymer composite bearing with using different drill bits**
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Composites Part B: Engineering, vol.176, 2019 (Journal Indexed in SCI)
- III. **Improving mechanical properties of AlSi10Mg aluminum alloy using ultrasonic melt treatment combined with T6 heat treatment**
VATANSEVER F., ERTÜRK A. T. , KARABAY S.
Kovove Materialy, vol.57, no.1, pp.33-43, 2019 (Journal Indexed in SCI)
- IV. **Failure analysis of wire-breaks in aluminum conductor production and investigation of early failure reasons for transmission lines**
KARABAY S., ERTÜRK A. T. , ZEREN M., YAMANOĞLU R., KARAKULAK E.
ENGINEERING FAILURE ANALYSIS, vol.83, pp.47-56, 2018 (Journal Indexed in SCI)
- V. **Vibration noise harshness of a light truck driveshaft, analysis and improvement with six sigma approach**

- ERTÜRK A. T. , KARABAY S., BAYNAL K., Korkut T.
Acta Physica Polonica A, vol.131, no.3, pp.477-480, 2017 (Journal Indexed in SCI)
- VI. **Determination of Zr Inoculation Effect on Improving Thermal Resistivity of EC Grade Aluminum**
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- VII. **Influence of Different Heat Treatments on the Solid Particle Erosion Behavior of Aluminum Alloy AA 7075 in Industrial Applications**
KARABAY S., Bayraklılar M. S. , BALCI E.
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- VIII. **Manufacturing of Al-Zr thermal-resistant alloys for transmission lines**
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- IX. **Processing damages of material components of aerial conductors and their tribological behaviors under dry friction**
FEYZULLAHOĞLU E., KARABAY S.
ARCHIVES OF CIVIL AND MECHANICAL ENGINEERING, vol.14, no.4, pp.682-690, 2014 (Journal Indexed in SCI)
- X. **Determination of early failure sources and mechanisms for Al 99.7% and Al-Mg-Si alloy bare conductors used in aerial transmission lines**
KARABAY S., FEYZULLAHOĞLU E.
ENGINEERING FAILURE ANALYSIS, vol.38, pp.1-15, 2014 (Journal Indexed in SCI)
- XI. **Increasing Lightning Strength of Optical Ground Conductors**
Karabay S.
TRANSACTIONS OF THE INDIAN INSTITUTE OF METALS, vol.67, no.1, pp.105-114, 2014 (Journal Indexed in SCI)
- XII. **THE EFFECT OF HEAT TREATMENTS ON THE SOLID-PARTICLE EROSION BEHAVIOR OF THE ALUMINUM ALLOY AA2014**
Karabay S.
MATERIALI IN TEHNOLOGIJE, vol.48, no.1, pp.141-147, 2014 (Journal Indexed in SCI)
- XIII. **Enhancement on Al-Mg-Si alloys against failure due to lightning arc occurred in energy transmission lines**
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Engineering Failure Analysis, vol.31, pp.153-160, 2013 (Journal Indexed in SCI)
- XIV. **Modification of Conductive Material AA6101 of OPGW Conductors against Lightning Strikes**
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- XV. **Detecting Groan Sources in Drum Brakes of Commercial Vehicles by TVA-FMEA: A Case Study**
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STROJNISKI VESTNIK-JOURNAL OF MECHANICAL ENGINEERING, vol.59, no.6, pp.375-386, 2013 (Journal Indexed in SCI)
- XVI. **A Study on the Derivation of Parametric Cutting Force Equations in Drilling of GFRP Composites**
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- XVII. **Performance testing of an optical ground wire composite**
KARABAY S., GÜVEN E. A. , ERTÜRK A. T.
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- XVIII. **THE COMPARISON OF SOLID PARTICLE EROSION BEHAVIORS OF AA-1070 AND AA-6101 ALLOYS USED IN POWER TRANSMISSION LINES IN TURKEY**
AVCU E., FİDAN S., KARABAY S., SINMAZÇELİK T.
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- XIX. **ACSS/TW aerial high-temperature bare conductors as a remedy for increasing transmission line capacity and determination of processing parameters for manufacturing**
Karabay S.
MATERIALS & DESIGN, vol.30, no.3, pp.816-825, 2009 (Journal Indexed in SCI)
- XX. **Importance of early detection of maintenance problems in rotating machines in management of plants: Case studies from wire and tyre plants**
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ENGINEERING FAILURE ANALYSIS, vol.16, no.1, pp.212-224, 2009 (Journal Indexed in SCI)
- XXI. **Influence of AlB2 compound on elimination of incoherent precipitation in artificial aging of wires drawn from redraw rod extruded from billets cast of alloy AA-6101 by vertical direct chill casting**
Karabay S.
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- XXII. **Performance testing of a constructed drilling dynamometer by deriving empirical equations for drill torque and thrust on SAE 1020 steel**
Karabay S.
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Articles Published in Other Journals

- I. **PID ve Bulanık Mantık Kontrol Sistemleri ile İki Tekerlekli Kendini Dengeleyebilen Robotik Sistem Tasarımı**
PEÇE F., YARAR E., KARABAY S.
Kocaeli Üniversitesi Fen Bilimleri Dergisi, 2020 (Other Refereed National Journals)
- II. **Transmisyon hatlarını koruyan opgw konstrüksiyonları ve yıldırım düşmelerine karşı tasarım kriteri**
KARABAY S., ERTÜRK A. T. , GÜVEN E. A.
Metal Dünyası, vol.3, no.226, pp.72-77, 2012 (Other Refereed National Journals)
- III. **Kompozit İletken Konstrüksiyonlarında Elastisite E Ve Termik Uzama Katsayısı Parametrelerinin Hesaplanması**
KARABAY S., GÜVEN E. A.
Metal Dünyası, vol.1, no.212, pp.124-127, 2011 (Other Refereed National Journals)
- IV. **Ekstrüzyon Mamullerinde Eloksoal Sonrası Görülen Bantlı Yapıların Nedenleri**
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- V. **Uluslararası İletken Piyasalarından Talep Gören Al 59 1120 ve AA 6101 İletken Alaşımları ve Fiziksel Özellikleri**
KARABAY S., GÜVEN E. A.
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- VI. **Orta ve Yüksek Gerilim Enerji Kablolarında Çok Telli Alüminyum İletkenlerinin Soğuk Haddeme İşleminde Ovallık Sorunu ve Önlenmesi**
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- VII. **Isıya dayanıklı Al-Zr alaşımlı iletkenlerin teknik karakteristikleri ve geleneksel iletkenlerle karşılaştırılması**
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- IX. **Alüminyum iletken imalat sanayiinde AlB2 ve AlB12 ön-alaşımlarının 99.5- 99.7Al ve AlMg0.7Si alaşımları üzerindeki iletkenlik tesirlerinin araştırılması**

KARABAY S., YILMAZ M.

METALURJİ, no.132, pp.56-62, 2003 (Other Refereed National Journals)

- X. **AA-6101 Alaşımının yüksek gerilim çıplak havai hatlarında AAAC iletkeni olarak kullanımı**
KARABAY S., ZEREN M., YILMAZ M.
METALURJİ, no.132, pp.56-62, 2003 (Other Refereed National Journals)

Books & Book Chapters

- I. **Mekanik Titreşimler Cilt 1**
KARABAY S.
Birsen Yayınevi, 2017
- II. **Mekanik Titreşimler Cilt 2**
KARABAY S.
Birsen Yayınevi, 2017

Refereed Congress / Symposium Publications in Proceedings

- I. **KAĞIT İŞLETMELERİNDE KESTİRİMCİ BAKIM UYGULAMALARI ve TİTREŞİMANALİZİ**
Dereoğlu F., YARAR E., KARABAY S.
International Marmara Sciences Congress (Spring) 2020, 19 - 20 June 2020
- II. **Micro Diameter Aluminum Conductor Wire Manufacturing for Advanced Technology Application**
ERTÜRK A. T. , Ocak N., KARABAY S., Akyüz O., GÜVEN E. A.
9. ULUSLARARASI ALUMİNYUM SEMPOZYUMU, İstanbul, Turkey, 10 - 11 October 2019, vol.1, pp.341-343
- III. **Optimization of Cutting Parameters with Taguchi Method for Drilling of Composites**
Yarar E., Vatansver F., Ertürk A. T. , Karabay S.
IV. International Academic Research Congress (INES), Antalya, Turkey, 30 October - 03 November 2018
- IV. **SUPERPLASTIC FORMING OF ALUMINUM ALLOYS**
VATANSEVER F., ERTÜRK A. T. , KARABAY S.
3rd International Energy and Engineering Congress and Exhibition (UEMK 2018), Gaziantep, Turkey, 18 - 19 October 2018, pp.338-343
- V. **DESIGN and ANALYSIS of a MAGNETORHEOLOGICAL DAMPER**
Olçay E., ERTÜRK A. T. , VATANSEVER F., KARABAY S.
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- VI. **Effect of Cooling Rate on the Microstructural and Mechanical Properties of Aluminum Alloys**
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3rd International Conference on Engineering Technology and Applied Sciences (ICETAS), Üsküp, Macedonia, 17 - 21 July 2018, pp.31
- VII. **The Effect of Ultrasonic Melt Treatment on the Microstructural and Mechanical Properties of Aluminum Alloys**
VATANSEVER F., ERTÜRK A. T. , KARABAY S.
3rd International Conference on Engineering Technology and Applied Sciences (ICETAS), 17 - 21 July 2018, pp.32
- VIII. **EXPERIMENTAL STUDY ON ULTRASONIC ASSISTED DRILLING OF AA6061-T6**
YARAR E., KARABAY S.
II. INTERNATIONAL ACADEMIC RESEARCH CONGRESS, 18 - 21 October 2017
- IX. **THE EFFECTS OF ULTRASONIC ASSISTED DRILLING ON TOOL WEAR**
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II. INTERNATIONAL ACADEMIC RESEARCH CONGRESS, 18 - 21 October 2017
- X. **Forgability of Aluminum 7075 Alloy in Closed Die**

YARAR E., GÜVEN E. A. , BALCI E., KARABAY S., ELTUT S. B.

II. INTERNATIONAL ACADEMICRESEARCH CONGRESS, 18 - 21 October 2017

- XI. **Yüksek Sıcaklıklarda Dayanımı Artırılmış Alüminyum İlekten İmalatı**
ERTÜRK A. T. , GÜVEN E. A. , KARABAY S., Uncu Ü. G. , Binbuğa İ.
8.Alüminyum Sempozyumu, İstanbul, Turkey, 5 - 06 October 2017, vol.1, pp.286-289
- XII. **The effects on the surface roughness of Tool coating in Drilling of AA6061-T6**
YARAR E., KARABAY S., GÜVEN E. A.
III International Conference on Engineering an Natural Science, Budapest, Hungary, 3 - 07 May 2017, vol.2, pp.546
- XIII. **Effect of Ultrasonic Melt Treatment on the Hardness of AA7075 Aluminum Alloy**
VATANSEVER F., ERTÜRK A. T. , GÜVEN E. A. , KARABAY S.
III International Conference on Engineering an Natural Sciences, Budapest, Hungary, 3 - 07 May 2017, vol.2, pp.177
- XIV. **Grain Refinement Of AA2014 Aluminum Alloy Using Ultrasonic Vibration**
VATANSEVER F., GÜVEN E. A. , ERTÜRK A. T. , KARABAY S.
III International Conference on Engineering an Natural Sciences, Budapest, Hungary, 3 - 07 May 2017, vol.2, pp.248
- XV. **Forging Analysis Of AA2014 Alloy Under Different Conditions By Using Finite Elements Method**
GÜVEN E. A. , YARAR E., KARABAY S.
III International Conference on Engineering an Natural Science, Budapest, Hungary, 3 - 07 May 2017, vol.2, pp.238
- XVI. **Noise Vibration Harshness Analysis of a Light Truck Driveshaft and Improving with Six Sigma Approach**
ERTÜRK A. T. , KARABAY S., BAYNAL K., Korkut T.
6th International Advances in Applied Physics and Materials Science Congress & Exhibition (APMAS2016), 1 - 03 June 2016
- XVII. **Ultrasonic Assisted Drilling of Aluminium 7075 T6**
Yarar E., Karabay S.
International Conference on Engineering and Natural Sciences, Sarajevo, Bosnia And Herzegovina, 24 - 28 May 2016
- XVIII. **Performance testing of an optical ground wire composites designed and manufactured for transmission lines and telecommunication systems**
KARABAY S., GÜVEN E. A. , ERTÜRK A. T.
20th Jubilee Conference On Materials and Technology, 18 - 20 October 2012
- XIX. **Transmisyon Hatlarında Kullanılan Çelik Telli Mamullerin Rotary Ekstrüzyon Yöntemiyle Ömürlerinin Artırılması**
KARABAY S., GÜVEN E. A. , ERTÜRK A. T.
International Iron Steel Symposium, Karabük, Turkey, 2 - 04 April 2012, vol.2, pp.651-658
- XX. **Transmisyon hatlarında kullanılan çelik telli mamüllerin rotary ekstrüzyon yöntemiyle ömürlerinin artırılması**
KARABAY S., GÜVEN E. A. , ERTÜRK A. T.
Uluslararası Demir Çelik Sempozyumu, 2 - 04 April 2012, vol.1, pp.651-658

Supported Projects

KARABAY S., Project Supported by Higher Education Institutions, MANYETOROLOJİK SÖNÜM ELEMANI GELİŞTİRİLMESİ, 2018 - 2019

KARABAY S., Project Supported by Higher Education Institutions, ALÜMİNYUM VE ALAŞIMLARININ GAZ GİDERME İŞLEMİNDE ULTRASONİK TİTREŞİMLERİN KULLANILMASI, 2017 - 2018

KARABAY S., Project Supported by Higher Education Institutions, ALÜMİNYUM ALAŞIMLARININ İÇ YAPISININ İNCELTİLMESİ İŞLEMİNİN OPTİMİZE EDİLMESİ, 2016 - 2017

KARABAY S., Project Supported by Higher Education Institutions, ULTRASONİK TİTREŞİM UYGULAMALI DELME PROSESLERİNDE TİTREŞİM, KUVVET VE YÜZEY ANALİZLERİ, 2015 - 2016

KARABAY S., Project Supported by Higher Education Institutions, Ultrasonik titreşimlerin kesme parametrelerine etkisi,

2013 - 2014

Citations

Total Citations (WOS):125

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