

Prof. HASAN BAŞ

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: ABB-7634-2020

ScopusID: 57214584224

Yoksis Researcher ID: 100478

Education Information

Doctorate, Karadeniz Technical University, Fen Bilimleri Enstitüsü, Makina, Turkey 1994 - 2001

Postgraduate, Karadeniz Technical University, Mühendislik Fakültesi, Makine Mühendisliği, Turkey 1990 - 1993

Undergraduate, Karadeniz Technical University, Mühendislik Fakültesi, Makine Mühendisliği, Turkey 1986 - 1990

Foreign Languages

English, C1 Advanced

Certificates, Courses and Trainings

IT, Bilirkişilik Temel Eğitimi, Karadeniz Teknik Üniversitesi, 2017

Education Management and Planning, CNC Training, Ortadoğu Teknik Üniversitesi, 1999

Dissertations

Doctorate, Katkı maddeli yağların kam mekanizmalarındaki sürtünme davranışlarının incelenmesi, Karadeniz Technical University, Mühendislik Fakültesi, 2000

Postgraduate, Fındık kırma teknolojisinde tambur sisteminin geliştirilmesi, Karadeniz Technical University, Mühendislik Fakültesi, 1993

Research Areas

Mechanical Engineering, Construction and Manufacturing, Tribology, Machine Elements, Machine Design, Computer Aided Design and Manufacturing, Predictive and Preventive Maintenance, Non-traditional manufacturing methods, Machining Methods, Transport Technique, Mechanical, Yarn Technology (Spinning, weaving, knitting), Textile Machinery, Engineering and Technology

Academic Titles / Tasks

Professor, Karadeniz Technical University, Mühendislik Fakültesi, Makine Mühendisliği, 2024 - Continues
Associate Professor, Karadeniz Technical University, Mühendislik Fakültesi, Makine Mühendisliği, 2015 - 2023
Assistant Professor, Karadeniz Technical University, Mühendislik Fakültesi, Makine Mühendisliği, 2005 - 2015
Research Assistant PhD, Karadeniz Technical University, Mühendislik Fakültesi, Makine Mühendisliği, 2001 - 2005
Research Assistant, Karadeniz Technical University, Mühendislik Fakültesi, Makine Mühendisliği, 1992 - 2001

Academic and Administrative Experience

Head of Department, Karadeniz Technical University, 2012 - 2013

Courses

Makina Elemanları - I, Undergraduate, 2022 - 2023
Bilgisayar Destekli Tasarım, Undergraduate, 2021 - 2022
Makina Elemanları - II, Undergraduate, 2021 - 2022
Bilgisayar Destekli Mühendislik Çizimi, Undergraduate, 2020 - 2021
Makina Tasarımı, Undergraduate, 2021 - 2022
Elektro pnömatik Sistemlerin Tasarımı Ve Optimizasyonu, Postgraduate, 2021 - 2022
İleri Ölçme Teknikleri ve Uygulamaları, Postgraduate, 2021 - 2022
Mühendislik Çizimi, Undergraduate, 2020 - 2021

Advising Theses

Baş H., Nanoparçacık katkılı sıvı yağların tribolojik özelliklerinin incelenmesi, Postgraduate, M.ALİ(Student), 2023
Baş H., Bor katkılı yağların motor performansına etkisinin incelenmesi, Postgraduate, Y.EMRE(Student), 2013
Baş H., Çay fabrikalarında yaş çay taşımada kullanılacak olan vakumlu sistemin prototipinin tasarımı, imalatı ve performans özelliklerinin incelenmesi, Postgraduate, F.G.(Student), 2010

Jury Memberships

Doctoral Examination, Doctoral Examination, Bursa Teknik Üniversitesi, January, 2021
Academic Staff Examination, Academic Staff Examination, Karadeniz Teknik Üniversitesi, April, 2019
Academic Staff Examination, Academic Staff Examination, Karadeniz Teknik Üniversitesi, January, 2013
Academic Staff Examination, Academic Staff Examination, Karadeniz Teknik Üniversitesi, August, 2012
Academic Staff Examination, Academic Staff Examination, Artvin Çoruh Üniversitesi, April, 2012

Published journal articles indexed by SCI, SSCI, and AHCI

- I. **Investigation of tribological properties of MoS₂ and CaF₂ particles as oil additives and their effects on surface contact**
BAŞ H., BEŞİRBEYOĞLU M. A., Oezen O.
LUBRICATION SCIENCE, vol.36, no.4, pp.314-329, 2024 (SCI-Expanded)
- II. **Prediction of friction coefficient and torque in self-lubricating polymer radial bearings produced by additive manufacturing: A machine learning approach**
BAŞ H., KARABACAK Y. E.
PROCEEDINGS OF THE INSTITUTION OF MECHANICAL ENGINEERS PART J-JOURNAL OF ENGINEERING TRIBOLOGY, vol.237, no.11, pp.2014-2038, 2023 (SCI-Expanded)

- III. **Machine learning-based prediction of friction torque and friction coefficient in statically loaded radial journal bearings**
BAŞ H., KARABACAK Y. E.
TRIBOLOGY INTERNATIONAL, vol.186, 2023 (SCI-Expanded)
- IV. **Triboinformatic modeling of the friction force and friction coefficient in a cam-follower contact using machine learning algorithms**
BAŞ H., KARABACAK Y. E.
Tribology International, vol.181, 2023 (SCI-Expanded)
- V. **Experimental investigation of efficiency of worm gears and modeling of power loss through artificial neural networks**
Karabacak Y. E., Baş H.
Measurement: Journal of the International Measurement Confederation, vol.202, 2022 (SCI-Expanded)
- VI. **Tribological properties of MoS₂ and CaF₂ particles as grease additives on the performance of block-on-ring surface contact**
Baş H., Özen O., Beşirbeyoğlu M. A.
Tribology International, vol.168, 2022 (SCI-Expanded)
- VII. **Investigation of the Effects of Boron Additives on the Performance of Engine Oil**
Baş H., Karabacak Y. E.
TRIBOLOGY TRANSACTIONS, vol.57, no.4, pp.740-748, 2014 (SCI-Expanded)
- VIII. **Modeling of Transverse Direction Thermal Conductivity in Micro-nano Fiber-reinforced Composites**
Ascioglu B., Adanur S., Gümüşel L., Baş H.
TEXTILE RESEARCH JOURNAL, vol.79, no.12, pp.1059-1066, 2009 (SCI-Expanded)
- IX. **A new test apparatus and method for friction force measurement in journal bearings under dynamic loading: Part II**
Biyıkhoğlu A., Cuvalci H., Adatepe H., Baş H., Duman M. S.
EXPERIMENTAL TECHNIQUES, vol.29, no.6, pp.33-36, 2005 (SCI-Expanded)
- X. **A new test apparatus and method for friction force measurement in journal bearings under dynamic loading: Part I**
Biyıkhoğlu A., Cuvalci H., Adatepe H., Baş H., Duman M.
EXPERIMENTAL TECHNIQUES, vol.29, no.5, pp.22-24, 2005 (SCI-Expanded)
- XI. **Investigation of the tribological properties of silicon containing zinc-aluminum based journal bearings**
Cuvalci H., Baş H.
TRIBOLOGY INTERNATIONAL, vol.37, no.6, pp.433-440, 2004 (SCI-Expanded)
- XII. **A new test apparatus for the tribological behavior of cam mechanisms**
Baş H., Biyıkhoğlu A., Cuvalci H.
EXPERIMENTAL TECHNIQUES, vol.27, no.5, pp.28-32, 2003 (SCI-Expanded)

Articles Published in Other Journals

- I. **Hidrodinamik radyal kaymalı yataklarda yüzey pürüzlülüğünün sürtünme davranışları üzerindeki etkilerinin incelenmesi**
Baş H.
Gümüşhane Üniversitesi Fen Bilimleri Dergisi, vol.12, no.3, pp.877-887, 2022 (Peer-Reviewed Journal)
- II. **Investigation of Tribological Properties of TiO₂, MoS₂ and CaF₂ Particles as Vegetable Oil Additives and Their Effects on Gearbox Performance**
Baş H., Karabacak Y. E.
Journal of Bio- and Tribo-Corrosion, vol.8, no.2, 2022 (Scopus)
- III. **Tribological properties of MoS₂ particles as lubricant additive on the performance of statically loaded radial journal bearings**

Baş H.

Turkish Journal of Engineering, vol.7, no.1, pp.42-48, 2022 (Peer-Reviewed Journal)

IV. Investigation of effects of surface roughness on the performance of cam mechanisms

Baş H.

International Journal of Automotive Engineering and Technologies, vol.10, no.1, pp.67-73, 2021 (Peer-Reviewed Journal)

V. Investigation of effects of boron additives on performance of cam mechanisms

Baş H.

International Journal of Automotive Engineering and Technologies, vol.10, no.1, pp.60-66, 2021 (Peer-Reviewed Journal)

Refereed Congress / Symposium Publications in Proceedings

I. Makina Tasarımındaki Güncel Gelişmeler ve Gelecekteki Beklentiler

Karabacak Y. E., Baş H.

9. ULUSLARARASI MÜHENDİSLİK VE TEKNOLOJİ YÖNETİMİ KONGRESİ, İstanbul, Turkey, 29 April - 01 May 2023, pp.755-766

II. Textile Machinery And Processes For Composite Preform Manufacturing

Adanur S., Aylan H., Gümüşel L., Baş H.

1st International Istanbul Textile And Textile Machinery Congress, İstanbul, Turkey, 1 - 02 June 2016

III. Influence of Particle Size on the Mechanical Properties of A2024 Matrix B4C Particle Reinforced Composites

Çanakçı A., Arslan F., Baş H.

13th International Materials Symposium (IMSP'2010), Denizli, Turkey, 13 - 15 October 2010, pp.15-23

IV. A Novel 3d Woven Knit Hybrid Fabric For Composites

Adanur S., Gümüşel L., BAŞ H.

Techtextil North America Symposium, 01 April 2008

V. Investigation of Friction Behavior of Different Kinds of Engine Oils on Cam Mechanisms Used in Automotive Engines

Baş H., Bıyıklıoğlu A.

İcolt99, International Lubrication Techniques konferansı, İstanbul, Turkey, 27 - 28 April 1999, pp.87-103

Supported Projects

BAŞ H., Project Supported by Higher Education Institutions, Atık NdFeB Miknatıs Katkılı EPDM Esaslı Kompozit Malzeme Üretimi ve İnelastik Özelliklerinin Deneysel Olarak Belirlenmesi, 2013 - 2018

BAŞ H., Project Supported by Higher Education Institutions, Borik Asitin Katkılı Motor Yağı Olarak Ullanılması Ve Motor Performansına Etkilerinin İncelenmesi, 2009 - 2018

BAŞ H., Project Supported by Higher Education Institutions, Farklı Malzemelerden Yapılmış Tüplerin Statik ve Dinamik Yükler Altında Enerji Sönümlenme Karakteristiklerinin Deneysel ve Sayısal Olarak Belirlenmesi, 2009 - 2012

Baş H., TUBİTAK Project, Bina Dış Cephe Temizlik Robotu'nun Tasarımı Ve Performans Özelliklerinin İncelenmesi, 2008 - 2009

Baş H., Industrial Thesis Project, Çay Fabrikalarında Yaş Çay Taşımada Kullanılacak Olan Vakumlu Sistemin Prototipinin Tasarımı, İmalatı ve Performans Özelliklerinin İncelenmesi, , 2007 - 2009

BAŞ H., Project Supported by Higher Education Institutions, Hidrojen Enerjili Araç Tasarımı ve İmalatı, 2008 - 2008

Baş H., TÜBİTAK International Bilateral Joint Cooperation Program Project, Design and Processing Characteristics of Novel Three Dimensional Fibrous Preforms for Composite Reinforcement Project Code MISAG NSF 14 The Scientific and Technical Research Council of Turkey TUBİTAK National Science Foundation NSF 2004 2007 Karadeniz Technical University Department of Mechanical Engineering and Auburn University Department of Polymer and Fiber Engineering

115 Textile Building Auburn AL 36849 5327 U S A, 2004 - 2007

Activities in Scientific Journals

International Online Conferences on Engineering and Natural Science, Scientific Committee Membership, 2021 - 2021

Memberships / Tasks in Scientific Organizations

MMO, Member, 1990 - Continues, Turkey

Malzeme Bilimleri & Üretim Teknolojisi Uygulama ve Araştırma Merkezi , Board Member, 2006 - 2009, Turkey

Scientific Refereeing

TRIBOLOGY INTERNATIONAL, SCI Journal, October 2023

Jurnal Tribologi, Journal Indexed in SCI-E, August 2023

Jurnal Tribologi, Journal Indexed in SCI-E, August 2023

TRIBOLOGY INTERNATIONAL, SCI Journal, June 2023

Mühendis ve Makina, National Scientific Refreed Journal, September 2021

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, June 2021

Erzincan Üniversitesi Fen Bilimleri Enstitüsü Dergisi, National Scientific Refreed Journal, March 2021

ENGINEERING SCIENCE AND TECHNOLOGY, AN INTERNATIONAL JOURNAL, SCI Journal, March 2020

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, January 2020

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, March 2019

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, January 2019

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, April 2018

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, February 2018

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, February 2018

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, February 2018

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, July 2017

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, June 2017

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, May 2017

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, August 2016

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, June 2016

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, May 2016

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, February 2016

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, December 2015

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, November 2015

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, July 2015

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, July 2015

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, March 2015

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, October 2014

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, September 2014

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, July 2014

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, September 2013

Afyon Kocatepe Üniversitesi Fen Bilimleri Dergisi, National Scientific Refreed Journal, October 2010

Completed Research Project, 9. Teknoloji Ödülleri ve Kongresi Sekreteryası (TÜBİTAK), TÜBİTAK, Turkey, August 2010

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, January 2010

TUBITAK Project, 1501 - Industry R & D Projects Support Program, Karadeniz Technical University, Turkey, July 2008

Metrics

Publication: 23

Citation (WoS): 98

Citation (Scopus): 122

H-Index (WoS): 5

H-Index (Scopus): 5

Congress and Symposium Activities

9 INTERNATIONAL CONGRESS ON ENGINEERING AND TECHNOLOGY MANAGEMENT, Attendee, İstanbul, Turkey, 2023

Non Academic Experience

University, Bahrain University, Mechanical Engineering

Bahrain University

Auburn University, Department of Polymer and Fiber Engineering, 115 Textile Building, Auburn, AL 36849-5327 U.S.A.

University, Auburn University NSF TÜBİTAK, Mühendislik Fakültesi/Makina Mühendisliği Bölümü