

## Prof. YAHYA IŐIK

### Personal Information

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### International Researcher IDs

ScholarID: OJ3wqkwAAAAJ

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### Education Information

Doctorate, Bursa Uludađ University, FEN BİLİMLERİ ENSTİTÜSÜ, Makine Mühendisliđi (Dr), Turkey 1996 - 2001

Postgraduate, Bursa Uludađ University, FEN BİLİMLERİ ENSTİTÜSÜ, Makine Mühendisliđi (YI) (Tezli), Turkey 1993 - 1995

Undergraduate, Gazi University, Teknik Eđitim Fakóltesi, Turkey 1976 - 1980

### Foreign Languages

English, B2 Upper Intermediate

### Research Areas

Engineering and Technology

### Academic Titles / Tasks

Professor, Bursa Uludađ University, MÜHENDİSLİK FAKÖLTESİ, MAKİNA MÜHENDİSLİĐİ, 2018 - Continues

Associate Professor, Bursa Uludađ University, TEKNİK BİLİMLER MYO, MAKİNE VE METAL TEKNOLOJİLERİ, 2010 - 2018

Assistant Professor, Bursa Uludađ University, TEKNİK BİLİMLER MYO, MAKİNE VE METAL TEKNOLOJİLERİ, 2003 - 2010

### Academic and Administrative Experience

Director of Vocational School, Bursa Uludađ University, MÜHENDİSLİK FAKÖLTESİ, MAKİNA MÜHENDİSLİĐİ, 2019 - Continues

Director of Vocational School, 2011 - 2015

Director of Vocational School, 1996 - 2011

Assistant Director of Vocational School, 1991 - 1996

## Courses

metal kesme teori ve uygulamaları, Postgraduate, 2022 - 2023  
Bilgisayar Destekli Teknik Resim, Undergraduate, 2022 - 2023  
İmalatta bilgisayar Destekli tasarım, Postgraduate, 2022 - 2023  
Teknik Resim, Undergraduate, 2022 - 2023

## Advising Theses

Işık Y., MEKANİK SİSTEMLERDE YAPISAL ANALİZ VE OPTİMİZASYON TEKNİKLERİ İLE AĞIRLIK AZALTILMASI, Postgraduate, Y.KHAIRALLA(Student), 2024  
Işık Y., EKSKAVATÖR KOLONUN YAPISAL OPTİMİZASYON YÖNTEMLERİ İLE AĞIRLIĞININ AZALTILMASI VE YORULMA ANALİZİ, Postgraduate, S.SOYLU(Student), 2024  
Işık Y., STRUCTURAL OPTIMIZATION OF AUTOMOBILE UPPER COMPONENTS, Postgraduate, M.TUZLA(Student), 2022  
Işık Y., Talaşlı imalatta dik kesme modelinin sonlu elemanlar metoduyla analizi, Postgraduate, E.ÖZTÜRK(Student), 2021  
Işık Y., SACLARDA DEĞİŞKEN FAKTÖRLERİN DOĞAL FREKANS ETKİSİNİN KARŞILAŞTIRMALI OLARAK SONLU ELEMANLAR METODUYLA İNCELENMESİ, Postgraduate, M.DOĞDU(Student), 2021  
Işık Y., Comparison of machinability of cast irons with different mechanical properties, Postgraduate, A.TUZER(Student), 2021  
Işık Y., The use and optimization of aluminum as a light weight material for mass reduction in vehicles, Postgraduate, R.ÇAĞLAYAN(Student), 2020  
Işık Y., Developing an early warning system for automotive industry in order to detect and signalize the geometrical defects on the vehicles not yet coming out of assembly line, Postgraduate, U.ERDEM(Student), 2020  
Işık Y., Optimization with alternative materials of the seats in the automotive sector, Postgraduate, M.GÖLEÇ(Student), 2019  
Işık Y., Examination of working principles of wing doors of commercial vehicles and development of mechanical systems, Postgraduate, A.KÖSE(Student), 2019  
Işık Y., Design and development of gear shift cable on manual automotive transmissions, Postgraduate, S.METİN(Student), 2019

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

- I. **Optimum structural design of seat frames for commercial vehicles**  
Işık Y., Göle M.  
MATERIALPRUEFUNG/MATERIALS TESTING, vol.63, no.2, pp.138-146, 2021 (SCI-Expanded)
- II. **A novel approach to use internally cooled cutting tools in dry metal cutting**  
IŞIK Y., KUŞ A., COŞKUN S., Ozdemir K., Cakir M. C.  
INDIAN JOURNAL OF ENGINEERING AND MATERIALS SCIENCES, vol.24, no.3, pp.239-246, 2017 (SCI-Expanded)
- III. **Using internally cooled cutting tools in the machining of difficult-to-cut materials based on Waspaloy**  
IŞIK Y.  
ADVANCES IN MECHANICAL ENGINEERING, vol.8, no.5, 2016 (SCI-Expanded)
- IV. **ANALYSIS OF THE CUTTING TEMPERATURE AND SURFACE ROUGHNESS DURING THE ORTHOGONAL MACHINING OF AISI 4140 ALLOY STEEL VIA THE TAGUCHI METHOD**  
MOTORCU A. R., IŞIK Y., KUŞ A., ÇAKIR M. C.  
MATERIALI IN TEHNOLOGIJE, vol.50, no.3, pp.343-351, 2016 (SCI-Expanded)
- V. **Influence of cutting parameters on the chip-tool interface temperature during the turning of Waspaloy**  
IŞIK Y., KUŞ A., Cakir M. C.  
MATERIALS TESTING, vol.57, no.9, pp.783-789, 2015 (SCI-Expanded)
- VI. **Thermocouple and Infrared Sensor-Based Measurement of Temperature Distribution in Metal Cutting**

KUŞ A., IŞIK Y., Cakir M. C., COŞKUN S., Ozdemir K.

SENSORS, vol.15, no.1, pp.1274-1291, 2015 (SCI-Expanded)

VII. **An Experimental Investigation on Effect of Cutting Fluids in Turning with Coated Carbides Tool**

Isik Y.

STROJNISKI VESTNIK-JOURNAL OF MECHANICAL ENGINEERING, vol.56, no.3, pp.195-201, 2010 (SCI-Expanded)

VIII. **Tool life and performance comparison of coated tools in metal cutting**

Isik Y.

International Journal of Materials and Product Technology, vol.39, pp.240-250, 2010 (SCI-Expanded)

IX. **Investigating the machinability of austempered ductile irons having different austempering temperatures and times**

Cakir M. C., IŞIK Y.

MATERIALS & DESIGN, vol.29, no.5, pp.937-942, 2008 (SCI-Expanded)

X. **Investigating the machinability of tool steels in turning operations**

Isik Y.

Materials and Design, vol.28, no.5, pp.1417-1424, 2007 (SCI-Expanded)

XI. **The effects of austempering temperature and time onto the machinability of austempered ductile iron**

Cakir M. C., Bayram A., Isik Y., Salar B.

MATERIALS SCIENCE AND ENGINEERING A-STRUCTURAL MATERIALS PROPERTIES MICROSTRUCTURE AND PROCESSING, vol.407, pp.147-153, 2005 (SCI-Expanded)

XII. **Finite element analysis of cutting tools prior to fracture in hard turning operations**

Cakir M. C., Isik Y.

MATERIALS & DESIGN, vol.26, no.2, pp.105-112, 2005 (SCI-Expanded)

XIII. **Detecting tool breakage in turning aisi 1050 steel using coated and uncoated cutting tools**

Cakir M. C., Isik Y.

JOURNAL OF MATERIALS PROCESSING TECHNOLOGY, vol.159, no.2, pp.191-198, 2005 (SCI-Expanded)

## Articles Published in Other Journals

I. **The Experimental Investigation of the Machinability of Armor Steels**

Işık Y., Asmafiliz C.

International Journal of Innovative Science and Research Technology, vol.9, no.4, pp.2220-2228, 2024 (Peer-Reviewed Journal)

II. **Optimization of the Mini Backhoe Excavator's Arm by HyperWorks Under Static Condition**

Işık Y., Khairalla Y.

International Journal of Innovative Science and Research Technology, vol.9, no.1, pp.1084-1090, 2024 (Peer-Reviewed Journal)

III. **Fatigue Analysis of Excavator Arm Reduced in Weight by Structural Optimization Methods**

Işık Y., Soylu S.

International Journal of Innovative Science and Research Technology, vol.8, no.12, pp.1543-1548, 2023 (Peer-Reviewed Journal)

IV. **Initial Flank Wear in the First Seconds of Coated Carbide Tools in Turning Operations**

Işık Y.

International Journal of Innovative Science and Research Technology, vol.8, no.10, pp.170-173, 2023 (Peer-Reviewed Journal)

V. **Determination of Natural Frequency Values In Bending Sheet Metals Using Finite Element Method**

Işık Y., Dogdu M.

International Journal of Innovative Science and Research Technology , vol.8, no.9, pp.1220-1226, 2023 (Peer-Reviewed Journal)

VI. **Investigation of Sound Absorption Performance of Roof Panels in Automobiles**

- Işık Y., Tuzla M.  
SSRG International Journal of Mechanical Engineering, vol.9, no.12, pp.1-9, 2022 (Peer-Reviewed Journal)
- VII. **Analysis of the Fatigue Life of Matrix Elements in the Hole Drilling Process in Sheet Metal Forming Dies**  
Işık Y., Kır H., Mantarlar M., Yazar M.  
SSRG International Journal of Mechanical Engineering, vol.9, no.7, pp.1-9, 2022 (Peer-Reviewed Journal)
- VIII. **Comparison of Machinability of Cast Irons with Different Mechanical Properties**  
Işık Y., Tuzer A.  
international journal of mechanical engineering, vol.9, no.7, pp.10-18, 2022 (Peer-Reviewed Journal)
- IX. **Experimental Analysis of Cutting Forces and Finite Element Simulation in Milling Operations**  
Işık Y., Öztürk E.  
International Journal of Mechanical Engineering, vol.8, no.11, pp.1-7, 2021 (Scopus)
- X. **Weight Optimization of Aluminum Alloys Used in Vehicles**  
IŞIK Y., Tekin B., Yılmaz A. F., Tatoğlu F., Öztürk D.  
International Journal of Mechanical Engineering, vol.7, no.11, pp.13-21, 2020 (Scopus)
- XI. **An Investigation of Working Principles and Developing Mechanical Systems of Passenger Doors of Commercial Vehicles**  
Köse A., IŞIK Y.  
International Journal of Mechanical Engineering, vol.6, no.3, pp.1-6, 2019 (Scopus)
- XII. **A MICRO SPRING PLUNGER GRIPPING MECHANISM DESIGN WITH PIEZOELECTRIC FORCE SENSOR FOR AUTOMATED HANDLING PROCESSES**  
CANGAR T., IŞIK Y.  
International Journal of Research in Engineering and Technology, vol.7, no.6, pp.41-48, 2018 (Peer-Reviewed Journal)
- XIII. **Effect of cutting speed on the PVD-Coated carbide insert in the machining on waspaloy**  
IŞIK Y.  
International Journal of Research in Engineering and Technology, vol.6, no.8, pp.48-52, 2017 (Peer-Reviewed Journal)
- XIV. **The Performance Evaluation of Ceramic and Carbide Cutting Tools in Machining of Austempered Ductile Irons**  
IŞIK Y.  
Uludağ University, Journal of The Faculty of Engineering, vol.19, no.2, pp.67-76, 2014 (Peer-Reviewed Journal)
- XV. **Kaplamasız ve CVD Kaplamalı Kesici Takımların Performans Analizi**  
Çakır M. C., Işık Y.  
Makine ve Metal Dergisi, no.139, pp.118-125, 2003 (Peer-Reviewed Journal)
- XVI. **Tornalama İşlemlerinde Hız Çeliği Kesici Takımların Kırılma Anının Tespiti**  
Işık Y., Çakır M. C.  
Bursa Uludağ Üniversitesi Mühendislik-Mimarlık Fakültesi Dergisi, vol.7, no.1, pp.211-219, 2002 (Peer-Reviewed Journal)
- XVII. **Hız Çeliği Takımlar için Kesme Parametrelerinin Yüzey Pürüzlülüğüne Etkilerinin Deneysel Olarak İncelenmesi**  
Işık Y., Çakır M. C.  
Teknoloji Dergisi, Karabük Üniversitesi (Jestec), vol.4, no.1, pp.111-118, 2001 (Peer-Reviewed Journal)
- XVIII. **Tornalama İşlemlerinde Taylor Takım Ömrü Denkleminin Deneysel Olarak İncelenmesi**  
Işık Y., Çakır M. C.  
Teknoloji Dergisi, Karabük Üniversitesi (Jestec), vol.3, no.4, pp.47-56, 2000 (Peer-Reviewed Journal)

## Refereed Congress / Symposium Publications in Proceedings

- I. **TAŞITLARDA AĞIRLIK AZALTIMINDA HAFİF MALZEME OLARAK ALÜMİNYUM KULLANIMI**

Işık Y., Çağlayan R.

UMTİK, Nevşehir, Turkey, 31 August - 03 September 2022, pp.627-640

- II. **A PNEUMATICALLY ACTUATED SPRING FORCE PLUNGER GRIPPING MECHANISM DESIGN WITH PIEZOELECTRIC FORCE SENSOR FOR AUTOMATED HANDLING PROCESSES IN AUTOMOTIVE INDUSTRY**  
CANGAR T., GÖÇMEN A., IŞIK Y.  
9th International Automotive Technologies Congress OTEKON 2018 7-8 May 2018, BURSA, 7 - 08 May 2018
- III. **Sertleştirilmiş AISI 4140 Çeliğinin Tornalanması İşlenmesinde Kesme Parametrelerinin ve Takım Kaplama Tipinin Etkilerinin İncelenmesi**  
IŞIK Y., KUŞ A., MURAT D., ÇAKIR M. C.  
8. Uluslararası Talaşlı İmalat Sempozyumu, Antalya, Turkey, 2 - 04 November 2017
- IV. **İçten soğutmalı takım tutucu için farklı soğutma sıvılarının performanslarının değerlendirilmesi**  
IŞIK Y., ÇAKIR M. C.  
7. Uluslararası talaşlı imalat sempozyumu, İstanbul, Turkey, 3 - 05 November 2016
- V. **An Experimental Investigation on Effect of Internally Cooled Cutting Tools in the Machining of Difficult to Cut Materials**  
IŞIK Y., KUŞ A.  
4. Annual International Conference on Industrial, Systems and Design Engineering, Athens, Greece, 20 - 23 June 2016
- VI. **An experimental investigation on effect of internally cooled cutting tools in the machinnig of difficult to cut materials**  
IŞIK Y., KUŞ A.  
4. Annual international conference on industrial systems and design engineering, Atina, Greece, 20 - 23 June 2016
- VII. **The Design of Internally Cooled Tools in Orthogonal Metal Cutting**  
IŞIK Y., KUŞ A., ÇAKIR M. C., COŞKUN S.  
3rd Annual International Conference on Industrial, Systems and Design Engineering, ATİNA, ATİNA, Greece, 22 - 25 June 2015
- VIII. **Dik talaş kaldırma işlemlerinde içeriden soğutmalı takım tasarımı**  
Işık Y., Kuş A., Çakır M. C., Coşkun S.  
5. Ulusal Talaşlı İmalat Sempozyumu, Bursa, Turkey, 23 - 25 October 2014
- IX. **Yüksekokullarında Uluslararası Eğitime Yeni bir Yaklaşım 1+ 1 Çift diploma modeli Bursa**  
Kuş A., Arslan R., Işık Y., Ezentaş R.  
I. Uluslararası mesleki eğitim ve öğretim sempozyumu, Bursa, Turkey, 2 - 04 September 2014
- X. **The Effects of Cutting Parameters on Chip-Tool Interface Temperature and Surface Roughness in Turning of Waspaloy**  
IŞIK Y., KUŞ A., ÇAKIR M. C.  
16th International Conference on Machine Design and Production İZMİR, İzmir, Turkey, 30 June - 03 July 2014
- XI. **İçten Soğutmalı Takım Tutucu Tasarımı ve Üretimi**  
Işık Y., Kuş A., Çakır M. C., Coşkun S.  
IV. Bilgilendirme ve Ar-Ge günleri, Bursa, Turkey, 11 - 13 November 2013
- XII. **Otomotiv Endüstrisinde Kullanılan Takım Çeliklerinin İşlenebilirliği**  
Çakır M. C., Işık Y.  
Otomotiv Teknolojileri Kongresi, Bursa, Turkey, 21 - 23 June 2004, pp.54-64
- XIII. **Finite Elements Analysis For Cutting Tools Prior To Fracture Breakage in Turning Operations**  
Işık Y., Çakır M. C.  
2nd International Conference on Responce Manufacturing, Gaziantep, Turkey, 9 - 13 September 2002, pp.32-44
- XIV. **A Real-Time Tool Breakage Detection System For Coated And Uncoated Cutting Tools in Turning Operations**  
Çakır M. C., Işık Y.  
2nd International on Conference on Responce Manufacturing, Gaziantep, Turkey, 09 September 2002 - 13 November 2020, pp.223-231
- XV. **Kaplamasız ve CVD Kaplamalı Kesici Takımların Aşınma Davranışları ve Performanslarının Deneysel**

### **Olarak İncelenmesi**

Işık Y., Çakır M. C.

Makina Tasarım ve İmalat Teknolojileri Kongresi Konya , Konya, Turkey, 2 - 03 November 2001, pp.58-66

XVI. **Takım Çeliklerinin Talaşlı İmalatında Kesme Kuvvetleri ile Takım Ömrü Arasındaki İlişkinin Deneysel Olarak İncelenmesi**

Işık Y., Çakır M. C.

9 th International Machine Design and Production Conference, Ankara, Turkey, 26 - 30 June 2000, pp.120-130

XVII. **Torna Tezgahlarında Kesme Kuvvetlerinin Ölçülmesi ve Analizi için Bir Kuvvet Ölçer Tasarımı ve İmalatı**

Çakır M. C., Işık Y.

9. Mühendislik Sempozyumu, Süleyman Demirel Üniversitesi, Isparta, Turkey, 23 - 25 September 1996, pp.34-45

### **Supported Projects**

IŞIK Y., KUŞ A., Project Supported by Higher Education Institutions, CNC Tezgâhlarda Ortogonal talaş kaldırma işlemlerinde soğutma sıvısı ve takımın içeriden soğutulmasının sıcaklık dağılımına etkilerinin deneysel olarak araştırılması, 2013 - 2015

Işık Y., Çakır M. C., Project Supported by Higher Education Institutions, Otomotiv endüstrisinde kullanılan takım çeliklerinin kaplamalı kesici takımlar ile talaşlı imalatında optimum kesme parametrelerinin belirlenmesi ve takım ömrünün iyileştirilmesi, 2001 - 2004

### **Metrics**

Publication: 48

Citation (WoS): 322

Citation (Scopus): 408

H-Index (WoS): 9

H-Index (Scopus): 9

### **Non Academic Experience**

Uludag Üniversitesi