

# Prof. İSA YEŞİLYURT

## Personal Information

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## Education Information

Doctorate, University of Manchester, Mechanical Engineering, England 1993 - 1997

Postgraduate, Dokuz Eylul University, Fen Bilimleri Enstitüsü, Makine Teorisi Ve Dinamiği (YI) (Tezli) (İngilizce), Turkey 1992 - 1994

Undergraduate, Dokuz Eylul University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, Turkey 1985 - 1988

## Foreign Languages

English, C1 Advanced

## Dissertations

Doctorate, Gearbox Fault Detection and Severity Assessment using Vibration Analysis, University of Manchester, Mechanical Engineering, 1997

## Academic Titles / Tasks

Professor, Usak University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2010 - Continues

Associate Professor, Usak University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 2005 - 2010

Assistant Professor, Afyon Kocatepe University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 1998 - 2005

Research Assistant, University of Manchester, Engineering, Mechanical Engineering, 1993 - 1997

Research Assistant, Pamukkale University, Mühendislik Fakültesi, Makine Mühendisliği Bölümü, 1991 - 1993

## Academic and Administrative Experience

Usak University, 2017 - 2018

Usak University, 2017 - 2018

Usak University, 2010 - 2011

Afyon Kocatepe University, 2003 - 2007

Usak University, 2002 - 2007

## Courses

### Doctorate

İLERİ DİNAMİK, Doctorate, 2019 - 2020, 2011 - 2012

KISMİ DİFERANSİYEL DENKLEMLER, Doctorate, 2011 - 2012

Fourier ve Dalgacık Dönüşümü, Doctorate, 2011 - 2012

Mekanik Sistemlerin Dinamiği, Doctorate, 2011 - 2012

Şok ve Titreşim Ölçümleri, Doctorate, 2011 - 2012

#### **Postgraduate**

KESTİRİMCİ BAKIM, Postgraduate, 2019 - 2020, 2017 - 2018, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010

İLERİ TİTREŞİMLER, Postgraduate, 2019 - 2020, 2017 - 2018, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010

ENDÜSTRİYEL AKUSTİK VE GÜRÜLTÜ, Postgraduate, 2019 - 2020

GÜRÜLTÜ KONTROLÜ, Postgraduate, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009

TİTREŞİMDE NUMERİK METOTLAR, Postgraduate, 2009 - 2010

#### **Undergraduate**

MEKANİZMA TEKNİĞİ, Undergraduate, 2019 - 2020, 2017 - 2018, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007

MATEMATİK 3, Undergraduate, 2019 - 2020, 2017 - 2018, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006

BAKIM ESASLARI VE TEKNİĞİ, Undergraduate, 2019 - 2020, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006

ÖLÇME TEKNİĞİ, Undergraduate, 2019 - 2020, 2017 - 2018, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006

MAKİNA DİNAMİĞİ, Undergraduate, 2019 - 2020, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006

MOTORLAR, Undergraduate, 2017 - 2018, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006

TAKIM TEZGAHLARI, Undergraduate, 2017 - 2018, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2007 - 2008, 2006 - 2007, 2005 - 2006

ENDÜSTRİYEL AKUSTİK VE GÜRÜLTÜ, Undergraduate, 2017 - 2018, 2013 - 2014, 2012 - 2013

BİTİRME TEZİ, Undergraduate, 2017 - 2018, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006

MAKİNE PROJE, Undergraduate, 2013 - 2014, 2012 - 2013, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2006 - 2007, 2005 - 2006

SİSTEM DİNAMİĞİ VE KONTROL, Undergraduate, 2011 - 2012, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006

MEKANİK TİTREŞİMLER, Undergraduate, 2010 - 2011, 2009 - 2010, 2008 - 2009, 2007 - 2008, 2006 - 2007, 2005 - 2006  
motorlar, Undergraduate, 2004 - 2005, 2003 - 2004, 2002 - 2003, 2001 - 2002, 2000 - 2001

BAKIM ESASLARI VE TEKNİĞİ, Undergraduate, 2004 - 2005, 2003 - 2004, 2002 - 2003, 2001 - 2002, 2000 - 2001

SİSTEM DİNAMİĞİ VE KONTROL, Undergraduate, 2004 - 2005, 2003 - 2004, 2002 - 2003, 2001 - 2002

MEKANİK TİTREŞİMLER, Undergraduate, 2004 - 2005, 2003 - 2004, 2001 - 2002

Transport Tekniği, Undergraduate, 2004 - 2005, 2003 - 2004, 2002 - 2003, 2000 - 2001

Makina Tasarımı, Undergraduate, 2004 - 2005, 2003 - 2004, 2002 - 2003, 2001 - 2002

matematik 3, Undergraduate, 2004 - 2005

MEKANİZMA TEKNİĞİ, Undergraduate, 2004 - 2005, 2003 - 2004, 2002 - 2003, 2001 - 2002

Makina Elamanları I-II, Undergraduate, 2004 - 2005, 2003 - 2004, 2002 - 2003, 2000 - 2001

MAKİNA DİNAMİĞİ, Undergraduate, 2004 - 2005, 2003 - 2004, 2002 - 2003, 2001 - 2002

FİZİK II, Undergraduate, 2004 - 2005

Matematik II, Undergraduate, 2004 - 2005, 2003 - 2004

BİTİRME TEZİ, Undergraduate, 2004 - 2005, 2003 - 2004, 2000 - 2001

ÖLÇME TEKNİĞİ, Undergraduate, 2004 - 2005, 2003 - 2004, 2002 - 2003, 2001 - 2002, 2000 - 2001

MAKİNE PROJE, Undergraduate, 2003 - 2004, 2002 - 2003

TAKIM TEZGAHLARI, Undergraduate, 2003 - 2004, 2002 - 2003, 2001 - 2002, 2000 - 2001

## Supervised Theses

İSA Y., Çelik malzemelerdeki hataların titreşim analizi ile tespiti, Postgraduate, B.EGELİ(Student), 2008

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

- I. **Acoustic Emission Monitoring of Burn Damage Occurring Under Different Grinding Conditions Using the Low-Order Frequency Moments of a Spectrogram**  
YEŞİLYURT İ.  
Journal of Vibration Engineering and Technologies, vol.11, no.7, pp.3185-3196, 2023 (SCI-Expanded)
- II. **A comparison of four machine learning techniques and continuous wavelet transform approach for detection and classification of tool breakage during milling process**  
Demir H. G., YEŞİLYURT İ.  
Transactions of the Canadian Society for Mechanical Engineering, vol.47, no.1, pp.26-42, 2023 (SCI-Expanded)
- III. **Modeling and experimental verification of cutting forces in gear tooth cutting**  
YEŞİLYURT İ., GURSOY H.  
Machining Science and Technology, vol.22, no.1, pp.30-47, 2018 (SCI-Expanded)
- IV. **Estimation of elastic and modal parameters in composites using vibration analysis**  
YEŞİLYURT İ., GURSOY H.  
JVC/Journal of Vibration and Control, vol.21, no.3, pp.509-524, 2015 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Scalogram-Based Instantaneous Features of Acoustic Emission in Grinding Burn Detection**  
YEŞİLYURT İ., DALKIRAN A., YEŞİL Ö., MUSTAK O.  
Journal of Dynamics, Monitoring and Diagnostics, vol.1, no.1, pp.19-28, 2022 (Peer-Reviewed Journal)
- II. **Monitoring of Burn Damage Occurrence under Different Grinding Conditions Using Acoustic Emission**  
YEŞİLYURT İ., BAKIR O.  
Usak University Journal of Engineering Sciences, vol.3, no.2, pp.105-112, 2020 (Peer-Reviewed Journal)
- III. **Dişli Çark Oyukçuk Arızasının Titreşim Analizi ile Tespiti**  
ÖZTÜRK H., YEŞİLYURT İ., SABUNCU M.  
Makine Teknolojileri Elektronik Dergisi (elektronik), no.98, pp.72-79, 2004 (Peer-Reviewed Journal)

## Papers Published in Refereed Scientific Meetings

- I. **DİŞLİ ÜRETİMİNDE KESİCİ TAKIMDA OLUŞAN LOKAL HATANIN SINIFLANDIRMA TEKNİKLERİ İLE TESPİTİ**  
GURSOY DEMİR H., YEŞİLYURT İ.  
19. Ulusal Makine Teorisi Sempozyumu, Turkey, 4 - 06 September 2019
- II. **Detection and Location of Tooth Defect in a Two-Stage Helical Gearbox using the Smoothed Instantaneous Power Spectrum**  
YEŞİLYURT İ., BALL A.  
14th International Congress on Condition Monitoring and Diagnostic Engineering Management, Manchester, England, 04 September 2001, pp.465-472
- III. **Vibration Based Methods in gearbox Fault Detection**  
YEŞİLYURT İ., BALL A.  
Proceedings of the International Conference on Vibration, noise, and Structural Dynamic, 27 - 29 April 1999

- IV. **Wavelet Transform Based Feature Extraction Scheme for Automated Rotating Machinery Fatigue Failure Assessment**  
YEŞİLYURT İ., ENGIN NACI S., BADI M. N.  
Proceedings of the Second U.K. Symposium on Applications of Time-Frequency and Time-Scale Methods, University of Warwick, Coventry, 27 - 28 August 1997
- V. **Detection and Severity Assessment of Bending Fatigue Failure in Spur Gear Teeth using the Continuous Wavelet transform**  
YEŞİLYURT İ., Ball A.  
Proceedings of the 10th International Congress on Condition Monitoring and Diagnostic Engineering Management, 24 - 27 June 1997
- VI. **Fault Detection in Helical Gears using Pseudo Wigner-Ville, Instantaneous Power Spectrum, and Choi-Williams Distributions: Part II: Automatic Classification**  
Ball A., YEŞİLYURT İ.  
Proceedings of the 9th International Congress on Condition Monitoring and Diagnostic Engineering Management, 16 - 18 July 1996
- VII. **Fault Detection in Helical Gears using Pseudo Wigner-Ville, Instantaneous Power Spectrum, and Choi-Williams Distributions: Part I: Performance Comparison of Time-Frequency Distributions**  
YEŞİLYURT İ., Ball A., JACOP P. J.  
Proceedings of the 9th International Congress on Condition Monitoring and Diagnostic Engineering Management, 1 - 03 July 1996

## **Metrics**

Publication: 14

Citation (Scopus): 29

H-Index (Scopus): 2

## **Non Academic Experience**

Uşak Seramik, mühendis