

Prof.Dr. ATİLA YILMAZ

Kişisel Bilgiler

İş Telefonu: [+90 312 297 7028](tel:+903122977028)

Fax Telefonu: [+90 312 299 2125](tel:+903122992125)

E-posta: ayilmaz@hacettepe.edu.tr

Web: <http://www.ee.hacettepe.edu.tr/?lang=e&link=400201&sublink=130>

Posta Adresi: Hacettepe Üniversitesi, Elektrik ve Elektronik Müh. Böl. Beytepe 06800, ANKARA

Uluslararası Araştırmacı ID'leri

ORCID: 0000-0001-9459-8493

Yoksis Araştırmacı ID: 30160

Eğitim Bilgileri

Doktora, University of Sussex, Trafford Center, Biomedical Engineering, Birleşik Krallık 1993 - 1996

Yüksek Lisans, Manchester Institute of Science and Technology, Control Systems Center, Control And Information Technology, Birleşik Krallık 1990 - 1992

Lisans, Hacettepe Üniversitesi, Mühendislik Fakültesi, Elektrik Ve Elektronik, Türkiye 1982 - 1986

Yabancı Diller

İngilizce, C1 İleri

Araştırma Alanları

Biyomedikal Mühendisliği, Biyoenstrümantasyon ve MEMS, Biyoenstrümantasyon ve MEMS, Biyomedikal Görüntü İşleme, Biyomedikal Görüntü İşleme, Biyomekanik, Hareket Analizi, Biyosinyal İşleme, Biyosinyal İşleme, Mühendislik ve Teknoloji

Akademik İdari Deneyim

Erasmus Koordinatörü, Hacettepe Üniversitesi, 2007 - Devam Ediyor

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- I. **Fine-grained Classification of Solder Joints with α-skew Jensen-Shannon Divergence**
ÜLGER F., Yuksel S. E., YILMAZ A., GÖKCEN D.
IEEE Transactions on Components, Packaging and Manufacturing Technology, cilt.13, sa.2, ss.257-264, 2023 (SCI-Expanded)
- II. **Solder Joint Inspection on Printed Circuit Boards: A Survey and a Dataset**
ÜLGER F., Yuksel S. E., YILMAZ A., GÖKCEN D.
IEEE Transactions on Instrumentation and Measurement, cilt.72, 2023 (SCI-Expanded)
- III. **Anomaly Detection for Solder Joints Using beta-VAE**

ÜLGER F., YÜKSEL ERDEM S. E., YILMAZ A.

IEEE TRANSACTIONS ON COMPONENTS PACKAGING AND MANUFACTURING TECHNOLOGY, cilt.11, sa.12, ss.2214-2221, 2021 (SCI-Expanded)

- IV. **Modeling and simulation of an anthropomorphic hand prosthesis with an object interaction**
Kaya Z. E., YILMAZ A.
COMPUTER METHODS AND PROGRAMS IN BIOMEDICINE, cilt.183, 2020 (SCI-Expanded)
- V. **Comparative study for identification of multiple alarms in telecommunication networks**
YILMAZ A.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, cilt.25, sa.2, ss.677-688, 2017 (SCI-Expanded)
- VI. **ANALYSIS OF GAIT MOTION EQUATIONS AND APPLICATION OF PROPORTIONAL DERIVATIVE CONTROL FOR ELECTRONIC ABOVE KNEE PROSTHESIS**
AKDOĞAN K. E., YILMAZ A.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, cilt.31, sa.1, ss.201-209, 2016 (SCI-Expanded)
- VII. **Gait motion simulator for kinematic tests of above knee prostheses**
YILMAZ A., ORHANLI T.
IET Science Measurement & Technology, cilt.9, sa.3, ss.250-258, 2015 (SCI-Expanded)
- VIII. **Regional TEC mapping using neural networks**
YILMAZ A., Akdoğan K. E., Gürün M.
RADIO SCIENCE, cilt.44, 2009 (SCI-Expanded)
- IX. **Application of conformal transformation to elliptic geometry for electric impedance tomography**
YILMAZ A., Akdoğan K. E., Saka B.
MEDICAL ENGINEERING & PHYSICS, cilt.30, sa.2, ss.144-153, 2008 (SCI-Expanded)
- X. **Comparative analysis on wavelet-based detection of finite duration low-amplitude signals related to ventricular late potentials**
MOUSA A., Yilmaz A.
PHYSIOLOGICAL MEASUREMENT, cilt.25, sa.6, ss.1443-1457, 2004 (SCI-Expanded)
- XI. **Elliptic cylinder geometry for distinguishability analysis in impedance tomography**
Saka B., YILMAZ A.
IEEE TRANSACTIONS ON BIOMEDICAL ENGINEERING, cilt.51, sa.1, ss.126-132, 2004 (SCI-Expanded)
- XII. **Non-linear modeling of parabolic reflector: Neural network approach**
Yilmaz A., Saka B.
ELECTROMAGNETICS, cilt.19, sa.2, ss.187-200, 1999 (SCI-Expanded)

Kitap & Kitap Bölümleri

- I. **Taşınabilir apne tespit cihazı: Donanım ve yazılım**
YILMAZ A., PEKER O.
Uyku Sinyallerinin İşlenmesi, Prof. Dr. Osman EROĞUL, Müh. Galip ÖZDEMİR, Editör, Uyku Klinikleri, Ankara, ss.83-94, 2020
- II. **Biyokinematik: Kuram, Ölçüm ve Çözümleme Çalışmaları**
Yilmaz A., Orhanlı T.
Biyomedikal Mühendisliği ve Uygulamaları, Osman Eroğul, Editör, Türkiye Yayıncılar Birliği, Ankara, ss.50-60, 2019
- III. **Biokinematics for Mobility: Theory, Sensors, and Wireless Measurements**
YILMAZ A., ORHANLI T.
Telehealth and Mobile Health, Halit Eren, John G. Webster, Editör, CRC Press, Boca Raton, Florida, ss.525-554, 2015

Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- I. **Performance of using Mel-Frequency Cepstrum Based Features in Nonlinear Classifiers for Phonocardiography Recordings**
Ozkan I., YILMAZ A.
31st European Signal Processing Conference, EUSIPCO 2023, Helsinki, Finlandiya, 4 - 08 Eylül 2023, ss.1190-1194
- II. **Defect Classification from Electronic Card Images by Deep Learning Elektronik Kart Görüntülerinden Derin Öğrenme ile Kusur Siniflandirmasi**
Eryilmaz M., Cil M., Akturk S., Tilegi M., Tirak H., YILMAZ A., Yuksel S. E., GÖKCEN D.
30th Signal Processing and Communications Applications Conference, SIU 2022, Safranbolu, Türkiye, 15 - 18 Mayıs 2022
- III. **Classification of Systolic Murmurs by Using Improved Mel-Wavelet Segmentation**
ÖZKAN İ., YILMAZ A.
29th Signal Processing and Communications Applications (SIU), İstanbul, Türkiye, 09 Haziran 2021
- IV. **Reconstruction of Multiple Inhomogeneities for Circular Model in Electric Impedance Tomography**
Manisalı H., YILMAZ A.
29th Signal Processing and Communications Applications (SIU), İstanbul, Türkiye, 09 Haziran 2021
- V. **Neural Network Based Real Time Evaluation for Portable Apnea Device with Three Channels**
PEKER O., YILMAZ A.
29th Signal Processing and Communications Applications (SIU), İstanbul, Türkiye, 09 Haziran 2021
- VI. **Analysis of Portable Apnea Devices: Comparison with Polysomnographic (PSG) Records**
YILMAZ A., Mutlu M. A., Gunay M., DEMİR A. U.
27th Signal Processing and Communications Applications Conference (SIU), Sivas, Türkiye, 24 - 26 Nisan 2019
- VII. **Improved Segmentation with Dynamic Threshold Adjustment for Phonocardiography Recordings**
ÖZKAN İ., YILMAZ A., Celebi G.
41st Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), Berlin, Almanya, 23 - 27 Temmuz 2019, ss.6681-6684
- VIII. **Mel-Frequency Cepstrum and Wavelet Transform for Phonocardiography Records**
ÖZKAN İ., YILMAZ A., Celebi G.
27th Signal Processing and Communications Applications Conference (SIU), Sivas, Türkiye, 24 - 26 Nisan 2019
- IX. **Analysis and Comparison of Current Dependent Models of MR (Magnetoreological) Dampers Used in Knee Prosthesis**
Sozeri G., YILMAZ A., ŞAHİN İ.
27th Signal Processing and Communications Applications Conference (SIU), Sivas, Türkiye, 24 - 26 Nisan 2019
- X. **Analysis of Gait Dynamics with the Double Pendulum Model**
ORHANLI T., YILMAZ A.
27th Signal Processing and Communications Applications Conference (SIU), Sivas, Türkiye, 24 - 26 Nisan 2019
- XI. **Üç Serbestlik Dereceli Yürüyüş Hareketinin Kinematik Analizi**
ORHANLI T., YILMAZ A.
2018 26th Signal Processing and Communications Applications Conference (SIU), İzmir, Türkiye, 2 - 05 Mayıs 2018
- XII. **Segmentation and Classification of Contractions in Uterine 16 Channels EMG Signals for Preterm Birth Prediction**
Tagdogan Kocak A., YILMAZ A.
26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Türkiye, 2 - 05 Mayıs 2018
- XIII. **Kinematic Analysis of Human Gait with Three Degrees of Freedom**
ORHANLI T., YILMAZ A.
26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Türkiye, 2 - 05 Mayıs 2018
- XIV. **Design of Apnea Detection Interface Including Time Delay Neural Networks for Portable Recording Devices with Three Channels**
Peker O., YILMAZ A., DEMİR A. U.
26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Türkiye, 2 - 05 Mayıs 2018

- XV. **Dynamic tests of MR (Magnetorheologic) damper and analysis of response characteristics in semi-active knee prosthesis MR (Manyetoreolojik) Sönümlendiricinin Dinamik Testleri ve Yarı Etkin Diz Protezlerinde Tepki Karakteristiğinin İncelenmesi**
AKALIN C., Orhanli T., YILMAZ A., Sahin I.
25th Signal Processing and Communications Applications Conference, SIU 2017, Antalya, Türkiye, 15 - 18 Mayıs 2017
- XVI. **Wireless and Embedded Controller Card Design for Above-knee Prosthesis with Pneumatic Damper**
ORHANLI T., SARAÇOĞLU M. S., ŞAHİN D., YILMAZ A.
ISPO World Congress 2017, Cape-Town, Güney Afrika, 8 - 11 Mayıs 2017
- XVII. **Mel-frequency cepstral based heart sound signal segmentation for decision support system**
CELEBİ G., SOZERİ G., YILMAZ A., KATİRCİOĞLU D., Okutucu S., SAYIN B. Y., AKSOY H., OTO A.
2017 25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, Türkiye, 15 - 18 Mayıs 2017, ss.1-4
- XVIII. **Dynamic Tests of MR (Magnetorheologic) Damper and Analysis of Response Characteristics in Semi-Active Knee Prosthesis**
Akalın C., ORHANLI T., YILMAZ A., ŞAHİN İ.
25th Signal Processing and Communications Applications Conference (SIU), Antalya, Türkiye, 15 - 18 Mayıs 2017
- XIX. **Application of neural based estimation algorithm for gait phases of above knee prosthesis**
TİLEYLİOĞLU E., YILMAZ A.
2015 37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society (EMBC), Milan, İtalya, 25 - 29 Ağustos 2015
- XX. **Embedded Phase Estimation in Finite State Control for Above Knee Prosthesis using Magnetorheological MR Damper**
YILMAZ A., SADEGHİMORAD A., ORHANLI T., ŞAHİN İ.
37th Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Milan, İtalya, 25 - 29 Ağustos 2015
- XXI. **Improving Test Platform for Kinematic Analysis of Above Knee Prostheses**
YILMAZ A., ORHANLI T.
International Society for Prosthetics and Orthotics- ISPO World Congress 2015, Lyon, Fransa, 22 - 25 Haziran 2015, cilt.39
- XXII. **Application and comparison of finite state control of above knee prosthesis with pneumatic cylinder at different phases**
ORHANLI T., YILMAZ A.
2015 23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, Türkiye, 16 - 19 Mayıs 2015, ss.2234-2237
- XXIII. **Application of wireless embedded microcontroller circuit for a semi active above knee prosthesis with pneumatic cylinder**
SARAÇOĞLU M. S., ŞAHİN D., ORHANLI T., YILMAZ A.
2015 23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, Türkiye, 16 - 19 Mayıs 2015, ss.2258-2261
- XXIV. **Elektronik Dizüstü Protezleri İçin Yapay Sinir Ağları Tabanlı Yürüyüş Evre Kestirimi Uygulaması**
TİLEYLİOĞLU E., YILMAZ A.
BİYOMUT 2014-Biyomedikal Mühendisliği Ulusal Toplantısı, İstanbul, Türkiye, 16 Ekim 2013 - 17 Ekim 2014
- XXV. **Analysis of the Performance of Controlled Semi-active Knee Joint With Magnetorheological (MR) Damper**
YILMAZ A., Sadeghimorad A., ŞAHİN İ., Kaya Z. E.
18th National Biomedical Engineering Meeting (BIYOMUT), İstanbul, Türkiye, 16 - 17 Ekim 2014
- XXVI. **Gait Measurement Using Radial Basis Function Networks and Comparison of Its Performance With Analytical Methods**
AKDOĞAN K. E., YILMAZ A.
18th National Biomedical Engineering Meeting (BIYOMUT), İstanbul, Türkiye, 16 - 17 Ekim 2014

- XXVII. **A Test Platform Design for Testing Knee Prostheses**
YILMAZ A., ORHANLI T.
18th National Biomedical Engineering Meeting (BIYOMUT), İstanbul, Türkiye, 16 - 17 Ekim 2014
- XXVIII. **Finite State Control of Semi Active Knee Joint With Pneumatic Damper**
ORHANLI T., YILMAZ A.
18th National Biomedical Engineering Meeting (BIYOMUT), İstanbul, Türkiye, 16 - 17 Ekim 2014
- XXIX. **Home recording for pre-phase sleep apnea diagnosis by Holter recorder using MMC memory**
YILMAZ A., DÜNDAR T.
2010 IEEE International Conference on Virtual Environments, Human-Computer Interfaces and Measurement Systems, Taranto, Italy, 6 - 08 Eylül 2010
- XXX. **Prediction of knee angle from accelerometer data for microcontroller implementation of semi active knee prosthesis**
ALTINÖZ Ö. T., YILMAZ A.
2010 15th National Biomedical Engineering Meeting, Antalya, Turkey, Türkiye, 21 - 24 Nisan 2010, ss.1-4
- XXXI. **Space Weather Activities of IONOLAB Group TEC Mapping**
ARIKAN F., YILMAZ A., ARIKAN O., SAYIN I., GÜRÜN M., AKDOĞAN K. E., YILDIRIM S. A.
EGU General Assembly Conference, Viyana, Avusturya, 19 - 24 Nisan 2009, cilt.11, ss.6962-6965
- XXXII. **Design Of a Neural Modelling Scheme For Gait Temporal Features**
Can E., YILMAZ A.
IEEE 17th Signal Processing and Communications Applications Conference, Antalya, Türkiye, 9 - 11 Nisan 2009, ss.798-801
- XXXIII. **Simulations of Knee Angle Control in Dynamical Gait Model for Above Knee Prosthesis**
Akdogan K. E., YILMAZ A., Duman S.
IEEE 17th Signal Processing and Communications Applications Conference, Antalya, Türkiye, 9 - 11 Nisan 2009, ss.822-823
- XXXIV. **Design of Portable Holter Recorder with MMC Memory for Prephase Sleep Apnea Diagnosis**
Karadeniz O., YILMAZ A., Dundar T.
14th National Biomedical Engineering Meeting, İzmir, Türkiye, 20 - 22 Mayıs 2009, ss.348-351
- XXXV. **Regional ionosphere mapping by using neural networks**
Gueruen M., Akdogan K. E., YILMAZ A.
IEEE 15th Signal Processing and Communications Applications Conference, Eskişehir, Türkiye, 11 - 13 Haziran 2007, ss.1027-1028
- XXXVI. **A method based on wavelet analysis for the detection of ventricular late potentials in ECG signals**
MOUSA A., YILMAZ A.
Proceedings of the 44th IEEE 2001 Midwest Symposium on Circuits and Systems. MWSCAS 2001 (Cat. No.01CH37257), Dayton, OH, USA, 14 - 17 Ağustos 2001
- XXXVII. **Neural network detection of ventricular late potentials in ECG signals using wavelet transform extracted parameters**
MOUSA A., YILMAZ A.
2001 Conference Proceedings of the 23rd Annual International Conference of the IEEE Engineering in Medicine and Biology Society, Istanbul, Turkey, Türkiye, 25 - 28 Kasım 2001, cilt.2, ss.1668-1671
- XXXVIII. **Adaptive non linear filtering of ECG signals dynamic neural network approach**
YILMAZ A., ENGLISH M. J.
IEE Colloquium on Artificial Intelligence Methods for Biomedical Data Processing, London, Birleşik Krallık, 26 Nisan 1996

Desteklenen Projeler

SAKA TANATAR B., KUMBAY YILDIZ Ş., ÖZGÜN Ö., AKTAŞ E., YILMAZ A., BULU G., Yükseköğretim Kurumları Destekli Proje, Elektrik ve Elektronik Mühendisliği Bölümünün ABET Akreditasyonu, 2017 - 2022

YILMAZ A., AKÇAY B., Yükseköğretim Kurumları Destekli Proje, Elektrik ve Elektronik Mühendisliği Bölümü Bilgisayar Laboratuvarları, 2015 - 2020

YILMAZ A., Kaya Z. E., Yükseköğretim Kurumları Destekli Proje, Eksik Tahrikli El Protezleri İçin Geliştirilen Doğrusal Olmayan Denetim Yöntemlerinin Gerçek Zamanlı Platformlar Üzerindeki Performanslarının Değerlendirilmesi, 2017 - 2019

AKTAŞ E., YILMAZ A., BULU G., ÖZGÜN Ö., Yükseköğretim Kurumları Destekli Proje, Elektrik ve Elektronik Mühendisliği Bölümünün ABET Akreditasyonuna Başvurması, 2015 - 2018

YILMAZ A., AKDOĞAN K. E., Yükseköğretim Kurumları Destekli Proje, ELEKTRONİK DİZ PROTEZİ İÇİN YÜRÜYÜŞ HAREKET DENKLEMLERİNİN ÇÖZÜMLEMESİ VE ORANSAL TÜREVSEL DENETİM UYGULAMASI, 2017 - 2017

YILMAZ A., TÜBİTAK Projesi, Elektronik Stetoskop ile Ayrıntılı Dinleme Oskültasyon ve Kalp Hastalıklarında Tanı Destek Sistemi Geliştirme ESDES G, 2015 - 2017

YILMAZ A., Orhanlı T., Yükseköğretim Kurumları Destekli Proje, Diz Üstü Protezlerinin Kinematik Testleri için Test Platformunun İyileştirilmesi, 2015 - 2016

YILMAZ A., TÜBİTAK Projesi, Pnömatik Ve Manyetoreolojik MR Sönümlendiricili Yarı Etkin Diz Eklem Tasarımlarında Gerçek Zamanlı Yürüyüş Fazı Ve Hız Kestirimi Uygulamaları, 2013 - 2016

YILMAZ A., Sanayi Tezleri Projesi, UYKU ANALIZI AMAÇLI FLASH KART BELLEKLİ HOLTER CİHAZI TASARIMI, 2008 - 2010

YILMAZ A., Sanayi Tezleri Projesi, MİKROİŞLEMCİ KONTROLLÜ PROTEZ DİZ EKLEMİ TASARIMI, 2007 - 2010

Metrikler

Yayın: 53

Atıf (WoS): 63

Atıf (Scopus): 226

H-İndeks (WoS): 4

H-İndeks (Scopus): 5

Akademi Dışı Deneyim

University of Wisconsin