

# SÜLEYMAN BİLGİN PROF.

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Publons / Web Of Science ResearcherID: C-3539-2016

ScopusID: 26021097900 Yoksis Researcher ID: 128433



### **Biography**

Prof. Dr. Süleyman Bilgin was born in 1978 in Karadeniz Ereğli. He completed his primary and secondary education in Burdur. He graduated from Süleyman Demirel University, Faculty of Engineering and Architecture in 2000 as an Electronics and Communications Engineer. He completed his master's degree in 2003 at Gebze Institute of Technology, Institute of Science and Technology, Department of Electronics Engineering, and his doctorate in Sakarya University, Institute of Science, Department of Electrical and Electronics in May 2008. After graduation, he worked as Istanbul Erelsan Ltd. between 2001-2003. Sti. Served as R&D manager. Later, he worked as a lecturer at Burdur Mehmet Akif Ersoy University Gölhisar Vocational School between 2004-2009. After completing his doctorate education, he was appointed as a lecturer at Akdeniz University, Faculty of Engineering, Department of Electrical and Electronics Engineering in 2009. He received the title of associate professor in 2018. Süleyman Bilgin, who is still a lecturer in the Department of Electrical and Electronics Engineering at Akdeniz University, has more than thirty articles published in national and international peer-reviewed journals, over fifty papers presented at national and international conferences, and author of four national and international book chapters. He works on artificial intelligence applications, biomedical systems, signal processing, image processing.

# Learning Knowledge

Doctorate 2008 - 2008	Eidgenössische Technische Hochschule, ETHZ (The Federal Institute of Technology, Zürich), Signal Processing Lab., Electronic Eng., Switzerland
Doctorate 2004 - 2008	Sakarya University, Institute Of Science, Electrical-Electronics Engineering, Turkey
Postgraduate 2001 - 2004	Gebze Technical University, Institute Of Science, Electronics Engineering, Turkey

## Foreign Languages

English, C1 Advanced German, B1 Intermediate

#### Dissertations

Doctorate, The analysis of heart rate variability using wavelet transform and artificial neural networks, Sakarya University, Institute Of Science, Electrical-Electronics Engineering, 2008

Postgraduate, Optical communication system application with RS-232 protocol in free space, Gebze Technical University, Institute Of Science, Electronics Engineering, 2004

# Academic Titles / Tasks

Professor	Akdeniz University, Faculty of Engineering, Department of Electrical and		
2024 - Continues	Electronics Engineering		
Associate Professor	Akdeniz University, Faculty of Engineering, Department of Electrical and		
2018 - 2024	Electronics Engineering		
Assistant Professor	Akdeniz University, Faculty of Engineering, Department of Electrical and		
2009 - 2018	Electronics Engineering		
Lecturer PhD	Burdur Mehmet Akif Ersoy University, Golhisar Vocational High School, Techni		
2008 - 2009	Sciences		
Lecturer	Suleyman Demirel University		
2004 - 2008	Sulcyman Denni et oniversity		

#### Supported Projects

- 1. Özdemir L., Bilgin S., TUBITAK Project, STEAM LEAK TRACKING SYSTEM, 2020 2021
- ORAL O., BİLGİN S., CARLAK H. F., AK M. Ü., DERİN N., DERİN A. T., Project Supported by Higher Education Institutions, İnsan Yüzü Üzerinden Alınan Titreşim Sinyallerinin Frekans Karakteristiklerinin Belirlenmesi, 2019 -2021
- 3. BİLGİN S., Çetin E., BİÇER GÖMCELİ Y., KAYIKÇİ A. M., Project Supported by Higher Education Institutions, Mobil EEG Tabanlı Açlık ve Tokluk Sınıflandırılması, 2018 2020
- 4. UYSAL H., KIZILAY F., BİLGİN S., ALBAYRAK Y., ÖZKAN Ö., ÖZKAN Ö., BARCIN N. E., ŞENOL A. U., KARAALİ K., ÜNAL A., et al., Project Supported by Higher Education Institutions, Bilim insanı yetiştirme ve geliştirme projesi, 2017 2019

- 5. TUNÇ S., ÖZEN Ş., DUMAN O., GÜRKAN T., BİLGİN S., Project Supported by Higher Education Institutions, Fotopolimerizasyon tekniği ile jelatin bazlı hidrojel sistemlerinin geliştirilmesi ve elektriksel aktivitelerinin incelenmesi. 2017 2018
- 6. BİLGİN S., ÜSER Y., TUBITAK Project, Kanal Seçenekli EKG Holter ve Kalp Hızı Değişkenliği (KHD) Analiz Cihazı, 2016 2018
- 7. BİLGİN S., CARLAK H. F., UYSAL H., POLAT Ö., TUBITAK Project, Spatisite Mekanizmalarının Kas, eklem ve Medulla Spinalisin Matematiksel Modelleriyle Analizi, 2015 2017
- 8. Carlak H. F., Bilgin S., Project Supported by Higher Education Institutions, Akım Uygulamalı Termal Görüntüleme, 2014 2016
- 9. BİLGİN S., Industrial Thesis Project, Prototip Buhar Kondenstopları kaçak kontrol cihazı, 2014 2015
- 10. BİLGİN S., Industrial Thesis Project, Kablosuz Holter EKG ve KHD Cihazı Tasarımı, 2013 2014
- 11. BİLGİN S., ÖZEN Ş., KIZILAY F., UYSAL H., TUBITAK Project, Spastisitenin değerlendirilmesinde elektrofizyolojik-kinesiolojik bir yöntem, 2011 2013
- 12. Bilgin S., Project Supported by Higher Education Institutions, Elektrokardiyografi (EKG) İşaretlerinin Sayısal İşarete Dönüştürülürken ortaya çıkan Problemlerin Araştırılması ve Çözümlenmesi, 2009 2011
- 13. ÇOLAK Ö. H., BİLGİN S., TUBITAK Project, Fibromiyalji Sendromunun Teşhisine Yönelik HRV, SSR ve Psikolojik Testlerin Dalgacık Dönüşümü ve Yapay Sinir Ağları ile Değerlendirilmesi ve İlişkilerin Belirlenmesi, 2008 - 2010

### **Awards**

- 1. BİLGİN S., GÜZELER A. C., BİLİŞİM, OTOMASYON, YAZILIM TEKNOLOJİLERİ KATEGORİSİNDE BİRİNCİLİK, ANTALYA ORGANİZE SANAYİ BÖLGESİ AR-GE VE İNOVASYON PROJE PAZARI, March 2018
- 2. BİLGİN S., Endurance and surface electromyography power frequency analysis of paraspinal muscles in patients with chronic low back pain undergoing exercise program, 7 th Physical Medicine and Rehabilitation Congress, May 2010

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

1. A novel wearable ERP-based BCI approach to explicate hunger necessity Çetin E., Bilgin S., Bilgin G.

NEUROSCIENCE LETTERS, vol.818, pp.137573-137582, 2024 (SCI-Expanded)

2. Evaluation of Vibration Signals Measured by 3-Axis MEMS Accelerometer on Human Face using Wavelet Transform and Classifications

Oral O., Bilgin S., Ak M. Ü.

Tehnicki Vjesnik-Technical Gazette, vol.29, no.2, pp.355-362, 2022 (SCI-Expanded)

3. Evaluation of facial tissue characteristics by utilising vibration signals using thermal imaging Irim Y., CARLAK H. F., Ak M. U., BİLGİN S., ORAL O.

IET SCIENCE MEASUREMENT & TECHNOLOGY, vol.14, no.10, pp.997-1002, 2020 (SCI-Expanded)

4. Mathematical model of patella T-reflex and clinical evaluation with Ashworth scales BİLGİN S., CARLAK H. F., POLAT Ö., Nuzket T., USLU S., UYSAL H. BIOMEDICAL ENGINEERING-BIOMEDIZINISCHE TECHNIK, vol.65, no.5, pp.587-594, 2020 (SCI-Expanded)

5. Evaluation of vibration measurements on human face using median and maximum frequencies Umit Ak M., BİLGİN S., ORAL O., Feza Carlak H. F., Tunga Derin A., DERİN N. IET Science, Measurement and Technology, vol.14, no.8, pp.853-856, 2020 (SCI-Expanded)

6. Investigating effects of force and pressure centre signals on stabilogram analysis Cetin E., BILGIN S.

IET SCIENCE MEASUREMENT & TECHNOLOGY, vol.13, no.9, pp.1305-1310, 2019 (SCI-Expanded)

7. Carbon nanotube, poly(3,4-ethylenedioxythiophene):poly(styrenesulfonate) and Ag nanoparticle doped gelatin based electro-active hydrogel systems

Polat T. G., Ateş K., Bilgin S., Duman O., Özen Ş., Tunç S.

COLLOIDS AND SURFACES A-PHYSICOCHEMICAL AND ENGINEERING ASPECTS, vol.580, 2019 (SCI-Expanded)

8. Gait pattern discrimination of ALS patients using classification methods

BİLGİN S., Akın Z. E.

TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.26, no.3, pp.1367-1377, 2018 (SCI-Expanded)

9. The impact of feature extraction for the classification of amyotrophic lateral sclerosis among neurodegenerative diseases and healthy subjects

BİLGİN S.

BIOMEDICAL SIGNAL PROCESSING AND CONTROL, vol.31, pp.288-294, 2017 (SCI-Expanded)

10. Low-frequency exposure analysis using electric and magnetic field measurements and predictions in the proximity of power transmission lines in urban areas

CARLAK H. F., ÖZEN Ş., BİLGİN S.

TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.25, no.5, pp.3994-4005, 2017 (SCI-Expanded)

11. A Study on the Effects of Sympathetic Skin Response Parameters in Diagnosis of Fibromyalgia Using Artificial Neural Networks

Ozkan O., Yildiz M., Arslan E., Yıldız S., BİLGİN S., AKKUŞ S., KOYUNCUOĞLU H. R., Koklukaya E.

JOURNAL OF MEDICAL SYSTEMS, vol.40, no.3, 2016 (SCI-Expanded)

12. Physiological parameters as a tool in the diagnosis of fibromyalgia syndrome in females: A preliminary study

Elmas O., Yildiz S., BİLGİN S., Demirci S., ÇÖMLEKÇİ S., KOYUNCUOĞLU H. R., AKKUŞ S., ÇOLAK Ö. H., Koklukaya E., Arslan E., et al.

LIFE SCIENCES, pp.51-56, 2016 (SCI-Expanded)

13. Investigation of the relationship between anxiety and heart rate variability in fibromyalgia: A new quantitative approach to evaluate anxiety level in fibromyalgia syndrome

BİLGİN S., Arslan E., Elmas O., Yildiz S., ÇOLAK Ö. H., Bilgin G., KOYUNCUOĞLU H. R., Akkus S., ÇÖMLEKÇİ S., Koklukaya E.

COMPUTERS IN BIOLOGY AND MEDICINE, vol.67, pp.126-135, 2015 (SCI-Expanded)

14. Biceps femoris late latency responses and the "notching sign" in spasticity

Gürbüz M., BİLGİN S., Albayrak Y., KIZILAY F., UYSAL H.

JOURNAL OF NEUROENGINEERING AND REHABILITATION, vol.12, 2015 (SCI-Expanded)

15. An electrophysiological and kinesiological method for assessing spasticity

Gürbüz M., KIZILAY F., BİLGİN S., ALBAYRAK Y., UYSAL H.

JOURNAL OF THE NEUROLOGICAL SCIENCES, vol.333, no.1, pp.138, 2013 (SCI-Expanded)

16. Temperature and burn injury prediction of human skin exposed to microwaves: a model analysis ÖZEN Ş., HELHEL S., BİLGİN S.

RADIATION AND ENVIRONMENTAL BIOPHYSICS, vol.50, no.3, pp.483-489, 2011 (SCI-Expanded)

17. Determination of a New VLF Band in HRV for Ventricular Tachyarrhythmia Patients

Bilgin S., ÇOLAK Ö. H., Polat O., Koklukaya E.

JOURNAL OF MEDICAL SYSTEMS, vol.34, no.2, pp.155-160, 2010 (SCI-Expanded)

18. Estimation and evaluation of sub-bands on LF and HF base-bands in HRV for Ventricular Tachyarrhythmia patients

Bilgin S., ÇOLAK Ö. H., Polat O., Köklükaya E.

EXPERT SYSTEMS WITH APPLICATIONS, vol.36, no.6, pp.10078-10084, 2009 (SCI-Expanded)

19. Determination of sympathovagal balance in ventricular tachiaffythmia patients with implanted cardioverter defibrillators using wavelet transform and MLPNN

Bilgin S., ÇOLAK Ö. H., Polat O., Koklukaya E.

DIGITAL SIGNAL PROCESSING, vol.19, no.2, pp.330-339, 2009 (SCI-Expanded)

20. Efficient Solution For Frequency Band Decomposition Problem Using Wavelet Packet In Hrv BİLGİN S., ÇOLAK Ö. H.

### Articles Published in Other Journals

#### 1. VIBRATION-BASED MEASUREMENT SYSTEM FOR BREAST TISSUE

Ak M. Ü., Bilgin G., Kaya D., Bilgin S., Kaya A.

Mühendislik Bilimleri ve Tasarım Dergisi, vol.12, no.2, pp.319-327, 2024 (Peer-Reviewed Journal)

#### 2. Development of a Hybrid Algorithm for Real-Time Pupil Tracking System

Kara C., Bilgin G., Bilgin S.

YEKARUM E-DERGİSİ, vol.8, no.2, pp.114-130, 2023 (Peer-Reviewed Journal)

### 3. A New Wristband Design for Cardiac Event Recorder and Telemetry System

Bilgin G., Oktay M., Bilgin S.

JOURNAL OF GRADUATE SCHOOL OF NATURAL AND APPLIED SCIENCES OF MEHMET AKIF ERSOY UNIVERSITY, vol.12, no.1, pp.104-120, 2021 (Peer-Reviewed Journal)

# 4. Investigation of Hunger and Satiety Status During Eyes Open and Closed Using EEG Signals

Çetin E., Bilgin G., BİLGİN S., Biçer Gömceli Y., Kayıkçi A. M.

Journal of Intelligent Systems with Applications, vol.3, no.1, pp.35-39, 2020 (Peer-Reviewed Journal)

# 5. A New Method For The Automatic Detection Of Ventricular And Atrial Premature Contractions

Akın Z. E., BİLGİN S.

Journal of Engineering Sciences and Design, vol.8, no.1, pp.165-174, 2020 (Peer-Reviewed Journal)

### 6. Automatic Detection Of Atrial Fibrillation Based On RR Interval

GÜZELER A. C., BİLGİN S.

Journal of Engineering Sciences and Design, vol.7, no.3, pp.487-497, 2019 (Peer-Reviewed Journal)

# 7. THREE DIMENSIONAL PRINTER APPLICATIONS IN THE HEALTH SECTOR: CURRENT SITUATION AND FUTURE

Akbaş G., ORAL O., BİLGİN S.

International Journal of 3D Printing Technologies and Digital Industry, vol.2, no.2, pp.88-98, 2018 (Peer-Reviewed Journal)

#### 8. A NEW ROBUST QRS DETECTION ALGORITHM IN ARRHYTHMIC ECG SIGNALS

BİLGİN S., Akın Z. E.

Journal of Engineering Sciences and Design, vol.6, no.1, pp.64-73, 2018 (Peer-Reviewed Journal)

# 9. The Comparison of Neurodegenerative Diseases and Healthy Subjects Using Discrete Wavelet Transform in Gait Dynamics

BİLGİN S.

Journal of Medical and Bioengineering, vol.6, no.1, pp.35-38, 2017 (Peer-Reviewed Journal)

### 10. Low Cost Laboratory Type Signal Generator Using DDS Method

BİLGİN S., ÜSER Y., OKTAY M.

International Journal Of Engineering & Applied Sciences, vol.8, no.4, pp.59-65, 2016 (Peer-Reviewed Journal)

### 11. Robotic Hand Controlling Based on Flexible Sensor

BİLGİN S., ÜSER Y., MERCAN M.

International Journal Of Engineering & Applied Sciences, vol.8, no.4, pp.49-58, 2016 (Peer-Reviewed Journal)

# 12. Predictions of the Electric Field Emissions around Power Transmission Lines by Using Artificial Neural Network Methods

CARLAK H. F., ÖZEN Ş., BİLGİN S.

American Scientific Research Journal for Engineering, Technology, and Sciences (ASRJETS), vol.15, no.1, pp.210-226, 2016 (Peer-Reviewed Journal)

### 13. Determination of health hazards for GSM BTS station by using fuzzy logic

Kanberoğlu B., Çömlekçi S., Bilgin S.

electronic letters on science & engineering, vol.2, no.1, pp.24-29, 2006 (Peer-Reviewed Journal)

# **Books & Book Chapters**

#### 1. A Walking and Balance Analysis Based on Pedobarography

Çetin E., Bilgin S., Oral O.

in: Lecture Notes on Data Engineering and Communications Technologies , D. Jude Hemanth, Utku Kose, Editor, Springer, London/Berlin , Basel, pp.906-913, 2019

#### 2. INDUSTRY 4.0 and INTERNET OF THINGS TECHNOLOGY

Oral O., Bilgin S.

in: Industry 4.0 Technological Fields and Applications, Kerim Çetinkaya,Pınar Demircioğlu,Koray Özsoy,Burhan Duman, Editor, Pegem A Yayıncılık, Ankara, pp.345-356, 2019

#### 3. Optoelectronic Devices

Bilgin S.

in: Solid State Electronics Circuit Elements, Merdan M., Editor, Palme Yayın Dağıtım, Ankara, pp.45-80, 2014

#### Refereed Congress / Symposium Publications in Proceedings

# 1. Evaluation of Vibration Signals Measured by 3-D MEMs Accelerometer on Human Face using Wavelet Transform and Classifications Methods

ORAL O., BİLGİN S., Ak M. Ü.

International Conference on Artificial Intelligence and Applied Mathematics in Engineering (ICAIAME 2020), Antalya, Turkey, 9 - 11 October 2020, pp.1

#### 2. Median and Maximum Frequency Analysis of Vibration Signals on Human Face

Ak M., BİLGİN S., ORAL O., Çetin E., CARLAK H. F., DERİN A. T., DERİN N.

The International Conference on Research in Engineering and Technology, Barcelona, Spain, 12 - 14 December 2019, pp.1

#### 3. Artificial Intelligence Applications in Energy Efficiency and Renewable Energy

Çetin E., Bilgin S.

YEKSEM 2019, Antalya, Turkey, 12 - 14 December 2019, pp.185-190

# 4. A New System Design for Measuring Vibration Effect in Live Tissues

Ak M., Bilgin S., Oral O., Çetin E., Carlak H. F., Derin A. T., Derin N.

TIPTEKNO 2019, Aydın, Turkey, 3 - 05 October 2019, pp.102-105

### 5. INDUSTRY 4.0 and INTERNET OF THINGS TECHNOLOGY

Oral O., Bilgin S.

4th INTERNATIONAL CONGRESS ON 3D PRINTING (ADDITIVE MANUFACTURING) TECHNOLOGIES AND DIGITAL INDUSTRY, Antalya, Turkey, 11 - 14 April 2019, pp.1436

### 6. A New System Design for Measuring Vibration Effect in Live Tissues

Umit M. A. K., BİLGİN S., ORAL O., Cetin E., CARLAK H. F., DERİN A. T., DERİN N.

Medical Technologies Congress (TIPTEKNO), İzmir, Turkey, 3 - 05 October 2019, pp.409-412

#### 7. 3D Printer Applications in The Health Sector: Current Situation and Future

BİLGİN S., ORAL O., AKBAŞ G.

The third International Congress on 3D Printing (Additive Manufacturing) Technologies and Digital Industry (3D-PTC2018), Antalya, Turkey, 19 - 21 April 2018, pp.1-8

# 8. Classification of Normal Beat, Atrial Premature Contraction and Ventricular Premature Contraction Based on Discrete Wavelet Transform and Artificial Neural Networks

Akin Z E BİLGİN S

Medical Technologies National Congress (TIPTEKNO), Trabzon, Turkey, 12 - 14 October 2017

# 9. QRS Complex Detection Algoritm Based on Discrete Wavelet and Hilbert Transform within The ECG Signal Arrhythmia

Güzeler A. C., Bilgin S.

BİYOMUT 2016, İzmir, Turkey, 3 - 05 November 2016, pp.219-224

#### 10. Fuzzy Based Flux Oriented Direct Torque Control Of Induction Motor

Üser Y., Bilgin S., Gülez K.

4th International Fuzzy Systems Symposium 2015, İstanbul, Turkey, 5 - 06 November 2015, pp.1

# 11. The Comparison of Neurodegenerative Diseases and Healthy Subjects using Discrete Wavelet Transform in Gait Dynamics

BİLGİN S.

8th International Conference on Computer and Electrical Engineering, Paris, France, 12 - 13 October 2015, pp.37

# 12. Naive Bayes Classification of Neurodegenerative Diseases By Using Discrete Wavelet Transform BİLGİN S., Güzeler A. C.

19th National Biomedical Engineering Meeting (BIYOMUT), İstanbul, Turkey, 5 - 06 November 2015

# 13. Image-Processing Based Determination of Kinesiologic Parameters of Spasticity Patients

Albayrak Y., Dağlı M., Asilkan Ö., Yardimci A., Bilgin S., Uysal H.

BİYOMUT 2014, İstanbul, Turkey, 16 - 17 October 2014, vol.1, no.1, pp.284-286

### 14. Assesment of Spasticity via Patellar Pendulum and Muscular and Skeletal Modelling

Özcan C., Albayrak Y., Bilgin S., Uysal H.

BİYOMUT 2014, İstanbul, Turkey, 16 - 17 October 2014, vol.1, no.1, pp.287-290

#### 15. A New Method for Determination of EDR Signal from ECG Signal

Uslu S., Nüzket T., Bilgin S.

TIPTEKNO2014, Nevşehir, Turkey, 25 - 27 September 2014, vol.1, no.1, pp.275-278

# 16. Assesing spasticity via patellar pendulum which is triggered by patellar T reflex

Gürbüz M., BİLGİN S., Özcan C., UYSAL H.

The XX Congress of the International Society of Electrophysiology and Kinesiology (ISEK) 2014, Roma, Italy, 15 - 18 July 2014, pp.355

### 17. Features of patellar pendulum triggered by patella t reflex in rigidity

UYSAL H., Gürbüz M., KIZILAY F., ALBAYRAK Y., BİLGİN S.

30th International Congress of Clinical Neurophysiology (ICCN), Berlin, Germany, 19 - 23 March 2014, vol.125, no.1, pp.127

#### 18. Assesment of Spasticity via Patellar Pendulum and Muscular-Skeletal Modelling

Ozcan C., ALBAYRAK Y., BİLGİN S., UYSAL H.

18th National Biomedical Engineering Meeting (BIYOMUT), İstanbul, Turkey, 16 - 17 October 2014

#### 19. An electrophysiological and kinesiological method for assessing spasticity

Gürbüz M., KIZILAY F., BİLGİN S., ALBAYRAK Y., UYSAL H.

XXI World Congress of Neurology, Viyana, Austria, 21 - 26 September 2013, vol.333, no.1, pp.138

### 20. An electrophysiological and kinesiological method for assesing spasticity

Gürbüz M., KIZILAY F., Bilgin S., Albayrak Y., Uysal H.

WCN 2013, Hong Kong, Japan, 31 May - 04 June 2013, pp.429

# 21. Examination of Possible Heart Problems in Fibromyalgia Patients with Detailed Electrocardiogram Analysis

Elmas O., Yıldız S., Bilgin S., Koyuncuoglu H. R., Çömlekçi S.

TFBD 2012 38th NATIONAL CONGRESS OF PHYSIOLOGY, Trabzon, Turkey, 1 - 03 December 2012, pp.1-3

# 22. RR Interval Variablity and Heart Rate Calculation

BİLGİN S., Uslu S., Usluer M., Nüzket T., ÖZEN Ş.

2nd International Scientific Conference on Engineering "Manufacturing and Advanced Technologies" (MAT2012), Antalya, Turkey, 22 - 24 November 2012, pp.311-314

### 23. A Device Design For Evaluation of Kinetic Disturbances in Parkinson Patients

Gencer E., Bilgin S., Öz E., Özdemir L., Gürbüz M., Uslu S., Özen Ş., Kizilay F., Uysal H.

TIPTEKNO 2012, Antalya, Turkey, 1 - 03 November 2012, pp.42-44

# 24. Prediction of Electromagnetic Pollution occured around the Energy Transmission and Distribution Lines with Multilayer Perceptron Artificial Neural Networks

Özen Ş., Ögel E. G., Bilgin S., Helhel S.

Biomedical Engineering Meeting 2012, 17th National Biyomut, İstanbul, Turkey, 3 - 05 October 2012, pp.130-133

### 25. Design of a new system for the evaluation of spasticity

Tosun P. D., Gürbüz M., Gencer E., Bilgin S., Özdemir E., Sever R., Özen Ş., Kizilay F., Uysal H.

TIPTEKNO 2011, Antalya, Turkey, 13 - 16 October 2011, pp.1

### 26. QRS Detection algorithm using Wavelet Packet Transform

Kuru Ö. F., Bilgin S., Özen Ş.

TIPTEKNO 2010, Antalya, Turkey, 14 - 16 October 2010, pp.1

# 27. Endurance and surface electromyography power frequency analysis of paraspinal muscles in patients with chronic low back pain undergoing exercise program

Yıldız S., Soyupek F., BİLGİN S., Koyuncuoğlu H. R.

17th Physical and Rehabilitation Medicine European congress, Venedik, Italy, 23 - 27 May 2010, pp.160

# 28. Correlation of BAI Psychological Test Scores with Heart Rate Variability Using Wavelet Packet Transform and Artificial Neural Networks in Fibromyalgia Syndrome

BİLGİN S., Koklukaya E., ÇOLAK Ö. H., Özkan Ö., Yıldız S., Bilgin G.

Biomedical Engineering Meeting 2010, 15th National Biyomut, Antalya, Turkey, 21 - 24 April 2010, pp.1

# 29. Analyze of Sympathovagal Balance on Ventricular Tachyarrhythmia Patients Using Wavelet Packet Transform

Çolak Ö. H., Bilgin S., Polat Ö.

BIYOMUT 2009, İzmir, Turkey, 20 - 24 May 2009, pp.1

# 30. The Impact of Daubechies Wavelet Performances on Ventricular Tachyarrhythmia Patients for Determination of Dominant Frequency Bands in HRV

Bilgin S., Polat O., ÇOLAK Ö. H.

14th National Biomedical Engineering Meeting, İzmir, Turkey, 20 - 22 May 2009, pp.423-424

# 31. Detection of Frequency Sub-Bands on Heart Rate Variability in Supra-Ventricular Tachyarrhythmia Patients Using Artificial Neural Networks

Bilgin S., Bilgin G., ÇOLAK Ö. H., Koklukaya E.

14th National Biomedical Engineering Meeting, İzmir, Turkey, 20 - 22 May 2009, pp.13-14

# 32. Evaluation of Sub-Frequency Regions of HRV in Supraventricular Tachyarrhythmia Patients BİLGİN S., ÇOLAK Ö. H., POLAT Ö., Köklükaya E.

Computers in Cardiology, Bologna, Italy, 14 - 17 September 2008, pp.1

### 33. Determination of Frequency Characteristics in HRV Signals Using Wavelet Transform

Bilgin S., Çolak Ö. H., Elmas O., Çömlekçi S.

SDU 15th Year Engineering and Architecture Congress 2007, Isparta, Turkey, 15 - 17 November 2007, pp.1

#### 34. The Detection of Artifacts on Heart Rate Variability Using Wavelet Transform

Bilgin S., Çolak Ö. H., Köklükaya E.

International Kyrgyz-Kazakh Electronics And Computer Conference, Almati, Kazakhstan, 3 - 05 October 2007, pp.1

# 35. Analyze Of Frequency-Energy Characteristics for HRV Signals Using Discrete Wavelet Transform (DWT)

BİLGİN S., ÇOLAK Ö. H., Koklukaya E.

International Workshop II on Applications of Wavelets to Real World Problems, İstanbul, Turkey, 7 - 09 June 2007, pp.2

# 36. Determination of health hazards for GSM BTS station by using fuzzy logic

Çömlekçi S., Bilgin S., Ulukut Coşkun Ö.

URSI 2006, Ankara, Turkey, 6 - 08 September 2006, pp.1

#### Academic and Administrative Experience

2023 - Continues	Applied Research Center Board Member	Akdeniz University, BİYOMEDİKAL TEKNOLOJİLER UYGULAMA VE ARAŞTIRMA MERKEZİ
2013 - 2018	Deputy Head of Department	Akdeniz University, Faculty of Engineering, Department of Electrical and Electronics Engineering

**Department** 

#### Courses

Elektronik Cihaz Tasarımı, Undergraduate, 2018 - 2019

Optoelektronik, Undergraduate, 2018 - 2019, 2016 - 2017, 2015 - 2016

Devre Teorisi II, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015

Devre Teorisi I, Undergraduate, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015

Sinyaller ve Sistemler, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015

Yapay Sinir Ağları, Postgraduate, 2017 - 2018

Sayısal Sinyal İşleme, Undergraduate, 2017 - 2018, 2016 - 2017, 2015 - 2016

Çoklu Çözünürlü Sinyal İşleme, Postgraduate, 2015 - 2016, 2014 - 2015

İleri Düzey MATLAB Uygulamaları, Postgraduate, 2015 - 2016, 2014 - 2015

MATLAB ile Kullanıcı Arayüz Programlama, Postgraduate, 2015 - 2016, 2014 - 2015

Yapay Sinir Ağları, Postgraduate, 2015 - 2016, 2014 - 2015

# **Advising Theses**

Bilgin S., RESEARCH OF FACEBOOK PROPHET FUNCTION EFFECT FOR HANDWRITTEN DIGIT PREDICTION, Postgraduate, C.KAPLAN(Student), 2023

Bilgin S., DEVELOPMENT OF A HYBRID ALGORITHM FOR REAL-TIME PUPIL TRACKING SYSTEM, Postgraduate, C.KARA(Student), 2022

Bilgin S., MOBILE EEG BASED HUNGER AND SATIETY CLASSIFICATION, Postgraduate, E.Çetin(Student), 2020 Oral O., Bilgin S., INVESTIGATION THE FREQUENCY CHARACTERISTICS OF VIBRATION SIGNALS ON THE HUMAN FACE, Postgraduate, M.Ümit(Student), 2019

Bilgin S., ECG EVENT RECORDER AND PHYSICAL TELEMETRY SYSTEM DESIGN, Postgraduate, M.Oktay(Student), 2019 Bilgin S., AUTOMATIC DETECTION OF VENTRICULAR AND ATRIAL PREMATURE CONTRACTIONS, Postgraduate, Z.Elif(Student), 2018

Bilgin S., AUTOMATIC ATRIAL FIBRILLATION DETECTION ON HOLTER ECG SIGNALS, Postgraduate, A.Can(Student), 2017 Çetinel G., Bilgin S., Diagnosis and grading of spasticity with electrophysiological and kinesiological data, Doctorate, Y.Albayrak(Student), 2017

Bilgin S., HARDWARE AND SOFTWARE DEVELOPMENT TO EVALUATE MOVEMENT DISORDER OF PARKINSON PATIENTS, Postgraduate, E.Gencer(Student), 2014

### Patent

BİLGİN S., ÖZDEMİR L., UYSAL H., Elektronik goniometre, Utility Model, CHAPTER A Human Needs, 2014

### Activities in Scientific Journals

Journal of Intelligent Systems with Applications, Editor, 2020 - Continues

TURKISH JOURNAL OF ELECTRICAL ENGINEERING & COMPUTER SCIENCES, Editor, 2017 - 2017

TURKISH JOURNAL OF ELECTRICAL ENGINEERING & COMPUTER SCIENCES, Editor, 2017 - 2017

### Scientific Refereeing

Biomedical Signal Processing and Control, SCI Journal, August 2020

Measurement, SCI Journal, October 2019

TURKISH JOURNAL OF ELECTRICAL ENGINEERING & COMPUTER SCIENCES, SCI Journal, October 2019

Computers in Biology and Medicine, SCI Journal, October 2015

Turkish journal of electrical engineering & computer sciences, SCI Journal, January 2013

Journal of Medical Systems, SCI Journal, February 2012

Applied Soft Computing, SCI Journal, January 2012

#### Metrics

Publication: 72 Citation (WoS): 107 Citation (Scopus): 176 H-Index (WoS): 7 H-Index (Scopus): 9

# **Congress and Symposium Activities**

Translational Engineering in Neurorehabilitation 2012 (TEN2012), Attendee, Göttingen/ALMANYA, Turkey, 2012

#### Research Areas

Computer Sciences, Computer Vision, Artificial Intelligence, Computer Learning and Pattern Recognition, Natural Language Processing, Evolutionary Computing, Text/Document Processing, Pattern Recognition and Image Processing, Neural Networks, Biomedical Engineering, Biomedical Image Processing, Biosignal Processing, Electrical and Electronics Engineering, Electronic, Circuit Theory, Sensing Devices and Transducers, Electronic Circuits, Engineering and Technology

#### Non Academic Experience

Company, Medises Medikal Elektronik Ar-Ge Danışmanlık A.Ş., Ar-Ge Erelsan Elektronik Ltd. Şti. Business Establishment Private, Erelsan Elektrik Elektronik Ltd. Şti., , İstanbul