

## Res. Asst. SERKAN USLU

### Personal Information

**Email:** serkanuslu@akdeniz.edu.tr

**Web:** <https://avesis.akdeniz.edu.tr/serkanuslu>

### International Researcher IDs

ORCID: 0000-0002-0875-5905

Yoksis Researcher ID: 285781

### Education Information

Doctorate, Akdeniz University, Faculty Of Medicine, Department of Basic Medical Sciences, Turkey 2018 - Continues

Postgraduate, Akdeniz University, Faculty Of Medicine, Department of Basic Medical Sciences, Turkey 2015 - 2018

Undergraduate, Akdeniz University, Faculty Of Engineering, Department of Electrical and Electronics Engineering, Turkey 2009 - 2013

### Foreign Languages

English, C1 Advanced

### Research Areas

Life Sciences, Biophysics, Natural Sciences

### Academic Titles / Tasks

Research Assistant, Akdeniz University, Faculty of Medicine, Department of Basic Medical Sciences, 2018 - Continues

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

- I. **Application of diffuse optical back reflection spectroscopy for determining articular cartilage thickness in a clinical setting**  
ÜNCÜ Y. A., Unlu Ö., Gumus B., USLU S., Turgut C., Soyuncu Y., BİLGE U., Ustunel I., CANPOLAT M.  
INTERNATIONAL ORTHOPAEDICS, vol.47, no.10, pp.2515-2521, 2023 (SCI-Expanded)
- II. **Left atrial overload detection in ECG using frequency domain features with machine learning and deep learning algorithms**  
USLU S., Ozturk N., Kucukseymen S., ÖZDEMİR S.  
Biomedical Signal Processing and Control, vol.85, 2023 (SCI-Expanded)
- III. **Evaluation of Executive Functions With Functional Near-Infrared Spectroscopy in Euthymic Bipolar and Borderline Personality Disorders**  
Zeybek G., USLU S., metin ö., Nüzket T., CİNEMRE B., CANPOLAT M., BAYSAL Ö.  
Nöropsikiyatri Arşivi, vol.60, no.2, pp.110-116, 2023 (SCI-Expanded)
- IV. **Role of adenosine triphosphate and protein kinase A in the force-frequency relationship in isolated**

## **rat cardiomyocytes**

Ozturk N., ERKAN O., USLU S., ÖZDEMİR S.

Archives of Biological Sciences, vol.75, no.1, pp.47-56, 2023 (SCI-Expanded)

- V. **Electrophysiological and kinesiological analysis of deep tendon reflex responses, importance of angular velocity**  
USLU S., Nüzket T., Gürbüz M., UYSAL H.  
Medical and Biological Engineering and Computing, vol.60, no.10, pp.2917-2929, 2022 (SCI-Expanded)
- VI. **Amplitude and velocity dependence of patellar pendulum triggered by T reflex in Parkinson's rigidity**  
USLU S., Gurbuz M., KIZILAY F., Ozkaynak S., Nuzket T., UYSAL H.  
NEUROLOGICAL SCIENCES, vol.42, no.8, pp.3257-3266, 2021 (SCI-Expanded)
- VII. **Rosuvastatin Reduces L-Type Ca<sup>2+</sup> Current and Alters Contractile Function in Cardiac Myocytes via Modulation of beta-Adrenergic Receptor Signaling**  
Ozturk N., USLU S., Mercan T., ERKAN O., ÖZDEMİR S.  
CARDIOVASCULAR TOXICOLOGY, vol.21, no.5, pp.422-431, 2021 (SCI-Expanded)
- VIII. **Diabetes-induced changes in cardiac voltage-gated ion channels**  
Ozturk N., USLU S., ÖZDEMİR S.  
WORLD JOURNAL OF DIABETES, vol.12, no.1, pp.1-18, 2021 (SCI-Expanded)
- IX. **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)
- X. **O121 Alpha motor neuron excitability and force generation in spasticity**  
Uslu S., Nüzket T., Ozcan C., Yagcioglu S., Uysal H.  
CLINICAL NEUROPHYSIOLOGY, vol.128, pp.1-2, 2017 (SCI-Expanded)
- XI. **Evaluation of The Patellar Tendon Reflex With Reflex Hammer That Can Measure Impact Force, Muscle Vibration and CMAP**  
Uslu S., NÜZKET T., Albayrak Y., UYSAL H.  
JOURNAL OF NEUROLOGICAL SCIENCES-TURKISH, vol.33, no.2, pp.214-226, 2016 (SCI-Expanded)

## **Articles Published in Other Journals**

- I. **MAKSİMUM OKSİJEN TÜKETİMİNİN ADIM KİNEMATİKLERİ KULLANILARAK MAKİNE ÖĞRENME YÖNTEMLERİYLE BELİRLENMESİ**  
Uslu S.  
Spor ve Performans Araştırmaları Dergisi, vol.13, no.2, pp.201-216, 2022 (Peer-Reviewed Journal)
- II. **Farklı Ağırlıklar ile Yapılan Squat Sıçramanın Makine Öğrenme Yöntemleri ile Değerlendirilmesi**  
Uslu S.  
Akdeniz Spor Bilimleri Dergisi, vol.5, no.1, pp.1-12, 2022 (Scopus)
- III. **The Comparison of Reconstruction Algorithms for Diffuse Optical Tomography**  
MERCAN T., SEVİM G., ÜNCÜ Y. A., USLU S., KAZANCI H. Ö., CANPOLAT M.  
Süleyman Demirel Üniversitesi Fen-Edebiyat Fakültesi Sosyal Bilimler Dergisi, vol.14, no.2, pp.285-295, 2019 (Peer-Reviewed Journal)
- IV. **Modified motor unit number index (MUNIX) algorithm for assessing excitability of alpha motor neuron in spasticity.**  
Uslu S., NÜZKET T., Uysal H.  
Clinical neurophysiology practice, vol.3, pp.127-133, 2018 (ESCI)

## **Refereed Congress / Symposium Publications in Proceedings**

- I. **Determination of Cartilage Thickness in-vivo Using Back Reflection Spectroscopy**  
CANPOLAT M., GÜMÜŞ B., OZBEY-UNLU O., USLU S., NÜZKET T., ÜNCÜ Y. A., SÖYÜNCÜ Y., TURGUT Ç., ÜSTÜNEL İ.  
2017 21st National Biomedical Engineering Meeting (BIYOMUT), İstanbul, Turkey, pp.1
- II. **Determination of Cartilage Thickness in-vivo Using Back Reflection Spectroscopy**  
Canpolat M., Gümüş B., Özbey Ünlü Ö., Uslu S., Nüzket T., Üncü Y. A., Söyüncü Y., Turgut Ç., Üstünel İ.  
2017 21st National Biomedical Engineering Meeting (BIYOMUT), İstanbul, Turkey, 24 - 26 November 2017
- III. **Investigation of Lateralization Effect in Prefrontal Cortex Activation During Verbal Fluency Test by Near Infrared Spectroscopy**  
USLU S., NUZKET T., ZEYBEK G., GOZTEPE M. B., CİNEMRE B., BAYSAL O., CANPOLAT M.  
21st National Biomedical Engineering Meeting (BIYOMUT), İstanbul, Turkey, 24 November - 26 December 2017
- IV. **Evaluation of Prefrontal Cortex Hemodynamic Changes with Near Infrared Spectroscopy During Wisconsin Card Sorting Test: A Pilot Study**  
USLU S., NUZKET T., ZEYBEK G., GOZTEPE M. B., CİNEMRE B., BAYSAL O., CANPOLAT M.  
21st National Biomedical Engineering Meeting (BIYOMUT), İstanbul, Turkey, 24 November - 26 December 2017
- V. **Determination of Cartilage Thickness in-vivo Using Back Reflection Spectroscopy**  
CANPOLAT M., GUMUS B., OZBEY-UNLU O., USLU S., NUZKET T., ÜNCÜ Y. A., SOYUNCU Y., TURGUT C., ÜSTÜNEL İ.  
21st National Biomedical Engineering Meeting (BIYOMUT), İstanbul, Turkey, 24 November - 26 December 2017
- VI. **Investigation Of Motor Unit Number And Size Index Of Rectus Femoris Muscle In Cerebral Spasticity**  
Nüzket T., USLU S., Özcan C., Yağcıoğlu S., CANPOLAT M., UYSAL H.  
International MotoNeuron Meeting, İstanbul, Turkey, 20 - 23 June 2016, pp.63
- VII. **Modified MUNIX Algorithm for Estimating T Response Motor Unit Number in Spasticity**  
USLU S., NÜZKET T., Özcan C., Yağcıoğlu S., CANPOLAT M., UYSAL H.  
International MotoNeuron Meeting, İstanbul, Turkey, 20 - 23 June 2016, pp.62
- VIII. **Spastisitede Patella T Refleksinin Değerlendirilmesi İçin Yeni Bir Cihaz Tasarımı**  
USLU S., Nüzket T., Özcan C., Yağcıoğlu S., UYSAL H.  
32. Ulusal Klinik Nörofizyoloji EEG - EMG Kongresi, Muğla, Turkey, 27 April - 01 May 2016, pp.37
- IX. **Serabral Spastisitede Rektus Femoris Motor Ünite ve Büyüklük İndeksinin İncelenmesi**  
Nüzket T., USLU S., Özcan C., Yağcıoğlu S., UYSAL H.  
32. Ulusal Klinik Nörofizyoloji EEG - EMG Kongresi, İstanbul, Turkey, 27 April - 01 May 2016, pp.38
- X. **Detarmination of patellar T EMG response with the Deep Tendon Reflex grading and tapping force**  
ALBAYRAK Y., UYSAL H., Uslu S., Nüzket T.  
BİYOMUT 2015, İstanbul, Turkey, 5 - 06 October 2015, pp.2
- XI. **Patella T Refl eksiinde Çekiç Vuruş Gücü, Kas Vibrasyonu ve Rektus Femoris M Yanıtı Arasındaki İlişki**  
USLU S., Nüzket T., UYSAL H.  
31. Ulusal Klinik Nörofizyoloji EEG - EMG Kongresi, Muğla, Turkey, 8 - 12 April 2015, pp.46
- XII. **Detarmination of Patellar T EMG Response with The Deep Tendon ReflexGrading and Tapping Force**  
USLU S., Nuzket T., ALBAYRAK Y., UYSAL H.  
19th National Biomedical Engineering Meeting (BIYOMUT), İstanbul, Turkey, 5 - 06 November 2015
- XIII. **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
- XIV. **Web Servis Aracılığıyla Android Cihazlardan Sıcaklık Kontrolü**  
ALBAYRAK Y., KOÇER A., Uslu S.  
XV. AKADEMİK BİLİŞİM KONFERANSI, Antalya, Turkey, 1 - 04 February 2013, pp.157-160
- XV. **RR Interval Variability and Heart Rate Calculation", 2nd International Scientific Conference on Engineering**  
ÖZEN Ş., Uslu S., BİLGİN S., Usluer M., Nüzket T., Bilgin G.  
Manufacturing and Advanced Technologies, MAT 2012, Antalya, Turkey, 22 - 24 November 2012, pp.1-3
- XVI. **RR Interval Variability 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

- XVII. **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., Kızılay F., Uysal H.  
TIPTEKNO 2012, Antalya, Turkey, 1 - 03 November 2012, pp.42-44
- XVIII. **Parkinson Hastalarında hareket bozukluklarını değerlendirmeye yönelik bir cihaz tasarımı**  
Gencer E., BİLGİN S., Öz E., ÖZDEMİR L., Gürbüz M., Uslu S., ÖZEN Ş., KIZILAY F., UYSAL H.  
Tıp Teknolojileri Ulusal Kongresi 2012, Antalya, Turkey, 1 - 03 November 2012, pp.42-44
- XIX. **Parkinson Hastalarında hareket bozukluklarını değerlendirmeye yönelik bir cihaz tasarımı**  
Gencer E., BİLGİN S., Öz E., ÖZDEMİR L., Gürbüz M., Uslu S., ÖZEN Ş., KIZILAY F., UYSAL H.  
Tıp Teknolojileri Ulusal Kongresi 2012, Antalya, Turkey, 1 - 03 November 2012, pp.42-44
- XX. **Parkinson Hastalarında hareket bozukluklarını değerlendirmeye yönelik bir cihaz tasarımı**  
Uysal H., Bilgin S., ÖZDEMİR L., Özen Ş., Kızılay F., Uslu S., Gencer E., Öz E., Gürbüz M.  
Tıp Teknolojileri Ulusal Kongresi, Antalya, Turkey, 1 - 03 November 2012, vol.-, pp.42-44

## Metrics

Publication: 38

Citation (WoS): 14

Citation (Scopus): 13

H-Index (WoS): 2

H-Index (Scopus): 2

## Congress and Symposium Activities

54. Ulusal Psikiyatri Kongresi, Attendee, İzmir, Turkey, 2018

33. Ulusal Klinik Nörofizyoloji EEG - EMG Kongresi, Attendee, Antalya, Turkey, 2017

10th BIENNIAL INTERNATIONAL MOTONEURON MEETING, Attendee, İstanbul, Turkey, 2016

32. Ulusal Klinik Nörofizyoloji EEG - EMG Kongresi, Attendee, Muğla, Turkey, 2016