

# YALÇIN ALBAYRAK

## ASST. PROF.

Email : [yalbayrak@akdeniz.edu.tr](mailto:yalbayrak@akdeniz.edu.tr)

Office Phone : [+90 242 310 6390](tel:+902423106390)

Office Phone : [+90 242 310 6390](tel:+902423106390)

Fax Phone : [+90 242 310 6390](tel:+902423106390)

### Learning Knowledge

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Doctorate 2009 - 2017	Sakarya University, Graduate School of Natural and Applied Sciences, Department of Electric-Electronics , Turkey
Postgraduate 2003 - 2007	Technische Universitaet Berlin, Electronics-Computer Science , Mobile Communication Systems , Germany
Undergraduate 1998 - 2003	Technische Universitaet Berlin, Electronics-Computer Science , Communication Systems , Germany

### Foreign Languages

German, B2 Upper Intermediate

English, B2 Upper Intermediate

### Academic Titles / Tasks

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Assistant Professor 2021 - Continues	Akdeniz University, Faculty of Engineering, Department of Electrical and Electronics Engineering
Lecturer 2008 - Continues	Akdeniz University, Faculty of Engineering, Elektrik-Elektronik Bölümü
Lecturer 2008 - Continues	Akdeniz University, Faculty of Engineering, Elektrik-Elektronik Bölümü

### Supported Projects

1. Albayrak Y., Nur Eke R., TUBITAK Project, Covid-19 Küresel Salgını Nedeniyle Takip ve Tedavi Süreci Aksayan Obezite Hastalarının Takibinde Dijital Uygulamaların Etkinliğinin Araştırılması, 2020 - 2021
2. Muhammetoğlu A., Muhammetoğlu H., Albayrak Y., TUBITAK Project, Akıllı Su Sayaçları ile İçme Suyu Dağıtım Şebekelerindeki Faturalandırılmamış İzinli Su Tüketiminde Yer Alan Abonelerin Aşırı ve Kontrolsüz Su Tüketimlerinin Tespiti ve Yönetimi, 2018 - 2020
3. BAŞARAN S. C., ALBAYRAK Y., AKSU Y., AKSU S., Project Supported by Higher Education Institutions, Biyotelemetri Uygulamaları için Biyosensör Entegre Modülü Tasarımı, 2016 - 2020

4. UYSAL H., KIZILAY F., BİLGİN S., ALBAYRAK Y., ÖZKAN Ö., ÖZKAN Ö., BARCIN N. E., ŞENOL A. U., KARAALI K., ÜNAL A., et al, Project Supported by Higher Education Institutions, Bilim insanı yetiştirme ve geliştirme projesi, 2017 - 2019
5. ALBAYRAK Y., TUBITAK Project, Manyetik Parçacık Görüntüleme (Mpi) Tekniğine Dayalı Medikal Görüntüleme Cihazının Geliştirilmesi, 2017 - 2019

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

1. **Association of Vehicle Count Data Obtained Via Image Processing Techniques Compared with Microsimulation Program Analysis Results**  
İlyas S., Ulusoy B. E., KÖFTECİ S., ALBAYRAK Y.  
Networks and Spatial Economics, vol.24, no.3, pp.655-680, 2024 (SCI-Expanded)
2. **The Role of Artificial Intelligence in Early Diagnosis and Molecular Classification of Head and Neck Skin Cancers: A Multidisciplinary Approach**  
SEMERCİ Z. M., TORU H. S., Çobankent Aytakin E., TERCANLI H., Chiorean D. M., ALBAYRAK Y., Cotoi O. S.  
Diagnostics, vol.14, no.14, 2024 (SCI-Expanded)
3. **Application of Cargo Distribution Computation in Airbus A330 Cargo Aircraft with Optimization Algorithms**  
ALBAYRAK Y., Atak B., Oral O.  
Tehnicki Vjesnik, vol.30, no.4, pp.1068-1080, 2023 (SCI-Expanded)
4. **Detection and Assessment of Post Meter Leakages in Public Places Using Smart Water Metering**  
MUHAMMETOĞLU A., ALBAYRAK Y., Bolbol M., Enderoglu S., MUHAMMETOĞLU H.  
WATER RESOURCES MANAGEMENT, vol.34, no.9, pp.2989-3002, 2020 (SCI-Expanded)
5. **Geographical origin of imported and domestic teas (Camellia sinensis) from Turkey as determined by stable isotope signatures**  
CENGİZ M. F., TURAN O., ÖZDEMİR D., ALBAYRAK Y., PERİNÇEK F., KOCABAŞ H.  
INTERNATIONAL JOURNAL OF FOOD PROPERTIES, vol.20, no.12, pp.3234-3243, 2017 (SCI-Expanded)
6. **Rule based fuzzy logic approach for classification of fibromyalgia syndrome**  
Arslan E., YILDIZ S., ALBAYRAK Y., Koklukaya E.  
AUSTRALASIAN PHYSICAL & ENGINEERING SCIENCES IN MEDICINE, vol.39, no.2, pp.501-515, 2016 (SCI-Expanded)
7. **The use of mobile smart devices and medical apps in the family practice setting**  
Yaman H., YAVUZ E., ER A., VURAL R., ALBAYRAK Y., YARDIMCI A., Asilkan O.  
JOURNAL OF EVALUATION IN CLINICAL PRACTICE, vol.22, no.2, pp.290-296, 2016 (SCI-Expanded)
8. **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)
9. **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)

### Articles Published in Other Journals

1. **Examples of legal regulations in Turkey and the world regarding the use of e- scooters in urban spaces**  
BİLDİRİCİ Z., İlyas S., Kepenek E., Albayrak Y.  
Akıllı Ulaşım Sistemleri ve Uygulamaları Dergisi (Online), vol.7, no.1, pp.31-42, 2024 (Peer-Reviewed Journal)
2. **AN EXAMINATION OF THE EFFECTIVENESS OF DIGITAL APPLICATIONS FOR OBESE PATIENTS WHOSE**

## **FOLLOW-UP AND TREATMENT WERE DISRUPTED DUE TO THE COVID-19 PANDEMIC**

Eke R. N., ALBAYRAK Y., Kuru S., Esen H.

Ankara Medical Journal, no.1, pp.104-117, 2022 (Scopus)

### **3. Researching the Consumer Attitudes towards the High Technology Multifunction Products**

ALBAYRAK Y., ORAL O.

The Journal of Knowledge Economy & Knowledge Management, vol.9, no.2, pp.61-72, 2014 (Peer-Reviewed Journal)

### **4. An Indoor To Outdoor Propagation Model At GSM900 GSM1800 And CDMA2100**

ÇELİK S., KURNAZ O., ALBAYRAK Y., HELHEL S., BİTİRGAN M., BAŞYİĞİT İ. B.

INTERNATIONAL JOURNAL OF ENGINEERING AND APPLIED SCIENCES, vol.5, no.2, pp.9-17, 2013 (Peer-Reviewed Journal)

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

### **1. Estimation of Obesity Risk with Fuzzy Logic Approach**

Yapar D., Edebalı S., Albayrak Y., Yardımcı A.

14. Tıp Bilişimi Kongresi, İzmir, Turkey, 16 - 18 March 2023

### **2. Estimation of The Level of Corrosion in Columns in Buildings by Using Wide Band Microwave Systems**

Irmak G., Sapmaz E., Akgün E., KOCAKUŞAK A., Başyigit I. B., ALBAYRAK Y., HELHEL S.

14th International Conference on Electrical and Electronics Engineering, ELECO 2023, Virtual, Bursa, Turkey, 30 November - 02 December 2023

### **3. An Empiric Mathematical Models to Predict Electrical Properties of Natural Juniper Wood Samples by Using Non-Distractive Methods**

Alsaadi S. S. J., KOCAKUŞAK A., ALBAYRAK Y., HELHEL S.

2023 Photonics and Electromagnetics Research Symposium, PIERS 2023, Prague, Czech Republic, 3 - 06 July 2023, pp.707-713

### **4. Güvenli Ve İzlenebilir Patoloji Numune Taşıma Sisteminin İnovasyona Dönüştürülmesi**

Esen H., Albayrak Y., Balbaşı Y., Fırat F.

VIII Uluslararası Sağlıkta Performans ve Kalite Kongresi, Antalya, Turkey, 14 - 17 December 2022, pp.1

### **5. Lora Based Tracking System for Elderly**

Albayrak Y., Can Kahyaoğlu M.

MIMCS 2022, Antalya, Turkey, 4 - 05 November 2022, pp.1-2

### **6. Spastisitede ve Rijiditede patella T Refleksi ve pendulumun Elektrofizyolojik ve Kinesiyolojik Özellikleri.**

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

29. Ulusal Klinik Nörofizyoloji EEG-EMG Kongresi, Antalya, Turkey, pp.61

### **7. Post Meter Water Leakage Detection Using Smart Metering**

MUHAMMETOĞLU A., ALBAYRAK Y., MUHAMMETOĞLU H.

Southeast Europe Regional Conference - Water Loss 2019, 23 - 24 September 2019

### **8. Nesnelerin İnterneti (IoT) Üzerine Ortam Verilerini Toplayan ve Uzaktan Takibini Sağlayan Bir Sistem Tasarımı**

ALBAYRAK Y.

Akademik Bilişim Konferansı 2017, Aksaray, Turkey, 8 - 10 February 2017, pp.1

### **9. Identification and Grading of Spasticity By Using AdaBoost and k-NN Techniques**

ALBAYRAK Y., ÇETİNEL G., Gul S.

25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017

### **10. Soft Robot Teknolojileri**

Taşpınar Ç., Yiğın S., ALBAYRAK Y., ÖZEN Ş.

1st International Mediterranean Science and Engineering Congress, Adana, Turkey, 26 - 28 October 2016

11. **Extract gait pattern with Kinect**  
ALBAYRAK Y., Şen S.  
SİU 2016, Zonguldak, Turkey, 16 - 19 May 2016, pp.1
12. **Raspberry pi ile Led Refleks Oyunu**  
ALBAYRAK Y., Akdemir K.  
Akademik Bilişim Konferansı 2016, Aydın, Turkey, 5 - 07 February 2016, pp.5
13. **Gömülü Web Sunucuyla İnternet Tabanlı Denetim Uygulaması**  
ALBAYRAK Y., Şen S., Bulut B.  
Akademik Bilişim Konferansı 2016, Aydın, Turkey, 5 - 07 February 2016, pp.1
14. **System Design For Elderly Fall**  
Guner H., ALBAYRAK Y.  
20th National Biomedical Engineering Meeting (BIYOMUT), İzmir, Turkey, 3 - 05 November 2016
15. **EXTRACT GAIT PATTERN WITH KINECT**  
ALBAYRAK Y., Sen S.  
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016, pp.1929-1932
16. **Design of Inner Campus Mobile Application For Advanced Studies Students: Instance of Akdeniz University**  
ORAL O., AFYONCU Ş., ALBAYRAK Y.  
3rd Global Conference on Computer Science, Software, Network&Engineering, İstanbul, Turkey, 19 - 21 November 2015, pp.4
17. **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
18. **Recommendation Algorithms in e-Commerce: An Empirical Study**  
ORAL O., ALBAYRAK Y.  
6th World Conference on Information Technology, Dubai, United Arab Emirates, 30 August - 01 September 2015, pp.37
19. **WLAN Based Indoor Locating Systems Enhanced by Ultrasonic Sensors; Hybrid Indoor Locating Systems (HILoS)**  
HELHEL S., KOCAKUŞAK A., ALBAYRAK Y., ÖZEN Ş.  
36 th Progress in Electromagnetic Research, Prag, Czech Republic, 5 - 09 June 2015, vol.1, no.1, pp.1-4
20. **Area-wide ANPR coverage with a small number of instrumented vehicles**  
ALBAYRAK Y., Günay B., Saltan M., Ilgaz A.  
Models and Technologies for Intelligent Transportation Systems (MT-ITS), 2015 International Conference on, İstanbul, Turkey, 3 - 05 June 2015, pp.1
21. **Gömülü Sistemlerle Görüntü İşleme ve PI Denetimli NesneTakibi**  
Öztürk T., ALBAYRAK Y., POLAT Ö.  
SİU 2015, Turkey, 16 - 19 May 2015
22. **Akıllı Trafik Kaza Algılayıcısı (ATKA)**  
Asadikoutmehr E., ALBAYRAK Y., ORAL O.  
Akademik Bilişim 2015, Eskişehir, Turkey, 4 - 06 February 2015, pp.1
23. **Object Tracking by PI Control and Image Processing on Embedded Systems**  
Ozturk T., ALBAYRAK Y., POLAT Ö.  
23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015, pp.2178-2181
24. **Area-wide ANPR coverage with a small number of instrumented vehicles**  
Gunay B., Ilgaz A., SALTAN M., ALBAYRAK Y.  
International Conference on Models and Technologies for Intelligent Transportation Systems (MT-ITS), Budapest, Hungary, 3 - 05 June 2015, pp.379-386
25. **Indoor Location Service with Beacons on Embedded Linux**

Coskun H., ALBAYRAK Y., Helbel S.

23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015, pp.2370-2372

26. **Determination of Patellar T EMG Response with The Deep Tendon Reflex Grading and Tapping Force**  
USLU S., Nuzket T., ALBAYRAK Y., UYSAL H.  
19th National Biomedical Engineering Meeting (BIYOMUT), İstanbul, Turkey, 5 - 06 November 2015
27. **Ortalama hız limiti uygulamasının donanımlı araçlar sayesinde alansal yaptırımı**  
GÜNAY B., Ilgaz A., ALBAYRAK Y., Saltan M.  
Transist 2014 7. Uluslararası Ulaşım Teknolojileri ve Sempozyumu, İstanbul, Turkey, 19 - 20 December 2014, pp.23-33
28. **Electronic Commerce And Its Development In Republic Of Macedonia**  
Saveska M., Bashkimi S., ORAL M., ALBAYRAK Y.  
5th World Conference On Information Technology, Dubai, United Arab Emirates, 11 - 13 December 2014, pp.3
29. **An Implantable Meander-Line Printed Antenna for Biomedical Applications**  
AKDAĞ M., YAMAÇ Y. E., ALBAYRAK Y., BAŞARAN S. C.  
International Conference on Applied Informatics for Health and Life Sciences, Aydın, Turkey, 19 - 22 October 2014, pp.132-134
30. **Patellar Pendulum ve Kas-İskelet Modellemesi ile Spastisitenin Değerlendirilmesi**  
Özcan C., ALBAYRAK Y., BİLGİN S., UYSAL H.  
BIYOMUT 2014, İstanbul, Turkey, 16 - 17 October 2014, vol.1, no.1, pp.287-290
31. **Image-Processing Based Determination of Kinesiologic Parameters of Spasticity Patients**  
Albayrak Y., Dağlı M., Asilkan Ö., Yardimci A., Bilgin S., Uysal H.  
BIYOMUT 2014, İstanbul, Turkey, 16 - 17 October 2014, vol.1, no.1, pp.284-286
32. **Three Dimensional (3D) Electromagnetic Field Distributions in the Air and Relative Diversity Gain**  
HELHEL S., ÖZEN Ş., ALBAYRAK Y., Başyigit I. B.  
PIERS 2014, Guangzhou, China, 25 - 28 August 2014, vol.1, no.1, pp.2178-2181
33. **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
34. **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
35. **Image-Processing Based Determination of Kinesiologic Parameters of Spasticity Patients**  
ALBAYRAK Y., DAGLI M., Asilkan O., YARDIMCI A., BİLGİN S., UYSAL H.  
18th National Biomedical Engineering Meeting (BIYOMUT), İstanbul, Turkey, 16 - 17 October 2014
36. **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
37. **Understanding Matching Circuits; Plastic Made Quasioptical Multilayer Matching Unit Design at X-band**  
ÖZEN Ş., HELHEL S., Kahya G., Aydoğmuş T., ALBAYRAK Y., Kopçal İ.  
Progress in Electromagnetics Research Symposium, PIERS 2013, Stockholm, Sweden, 12 - 15 August 2013, pp.3
38. **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
39. **Polisiye İngilizce: Antalya polisinin mobil öğrenme deneyimleri**  
GEDİK N., İLTER B., ALBAYRAK Y.  
Akademik Bilişim, Antalya, Turkey, 23 - 25 February 2013, pp.267
40. **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

41. **Patella T Refleksi ve Pendulumun Elektrofizyolojik Özellikleri**

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

28.Ulusal Klinik Nörofizyoloji ve EEG-EMG Kongresi, Antalya, Turkey, 1 - 04 April 2012, pp.61

42. **FEM Tabanlı Mikroşerit Anten Simülatörü**

BAŞARAN S. C., ALBAYRAK Y.

1. Ulusal EM Konferansı, İstanbul, Turkey, 14 - 16 September 2011, pp.1-2

43. **Finite Element Microstrip Antenna simulator (FEMAS)**

BAŞARAN S. C., ALBAYRAK Y.

IEEE URSI General Assembly and Scientific Symposium, İstanbul, Turkey, 13 - 20 August 2011, pp.1-4

44. **Assesment of spasticity via Patellar pendulum and muscular-skeletal modelling Patellar pendulum ve kas-skelet modellemesi ile spastisitenin değerlendirilmesi**

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

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

## Courses

Bilgisayar Programlama II, Undergraduate, 2022 - 2023

Mikrodenetleyiciler, Undergraduate, 2022 - 2023

İleri Bilgisayar Programlama, Undergraduate, 2022 - 2023

İleri Yapay Sinir Ağları Uygulamaları, Postgraduate, 2022 - 2023

Bilgisayar Programlama I, Undergraduate, 2022 - 2023

Görüntü İşleme, Undergraduate, 2022 - 2023

Yapay Sinir Ağları, Postgraduate, 2021 - 2022

Bilgisayar Ağları, Undergraduate, 2020 - 2021

## Advising Theses

Albayrak Y., Derin öğrenme ile korpus kalozum segmentasyonu ve indeks hesaplaması, Postgraduate, T.YILDIZOĞLU(Student), 2022

Albayrak Y., SU KAYIPLARI İÇİN AKILLI SU SAYAÇLARI İLE YAPAY ZEKA TABANLI OTOMASYON TASARIMI, Postgraduate, M.CELAL(Student), 2022

HELHEL S., ALBAYRAK Y., Uzaktan kontrollü ARM tabanlı mikrodenetleyici deney seti tasarımı ve gerçekleştirilmesi, Postgraduate, R.GÜLCAN(Student), 2019

ALBAYRAK Y., Uzaktan kontrollü ARM tabanlı mikrodenetleyici deney seti tasarımı ve gerçekleştirilmesi / Design and implementation of remote controlled ARM, Postgraduate, R.Gülcan(Student), 2019

## Scientific Consultations

Tübitak 2209, Project Consultancy, Akdeniz University, Faculty Of Engineering, Department of Electrical and Electronics Engineering, Turkey, 2023 - Continues

UğurOptik Makina, Scientific Consultancy, Akdeniz University, Faculty Of Engineering, Department of Electrical and Electronics Engineering, Turkey, 2020 - 2021

Tübitak, Project Consultancy, Akdeniz University, Faculty Of Engineering, Department of Electrical and Electronics Engineering, Turkey, 2019 - 2020

Tübitak, Project Consultancy, Akdeniz University, Faculty Of Engineering, Department of Electrical and Electronics Engineering, Turkey, 2019 - 2019

## Metrics

Publication: 64

Citation (WoS): 27

Citation (Scopus): 45

H-Index (WoS): 3

H-Index (Scopus): 2

## Research Areas

Biomedical Engineering, Engineering and Technology