GÜRAY GÜRKAN
ASST. PROF.

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International Researcher IDs
ORCID: 0000-0003-0109-1349
Publons / Web Of Science ResearcherID: P-8671-2019
Yoksis Researcher ID: 113297

Learning Knowledge

Doctorate 2005 - 2011	Istanbul University, Institute of Graduate Studies In Sciences, Biomedical Engineering, Turkey
Postgraduate 2003 - 2005	Istanbul University, Institute of Graduate Studies In Sciences, Biomedical Engineering, Turkey
Undergraduate 1999 - 2003	İstanbul University-Cerrahpaşa, Faculty Of Engineering, Department Of Electrical And Electronics Engineering, Turkey

Foreign Languages

English, C2 Mastery

Academic Titles / Tasks

Assistant Professor 2021 - Continues	Istanbul University, Faculty of Science, Department of Physics
Assistant Professor 2012 - 2021	Istanbul Kultur University, Faculty Of Engıneerıng, Department Of Electronıcs Engıneerıng (Englısh)
Research Assistant 2005 - 2012	Istanbul Kultur University, Faculty Of Engıneerıng-Archıtecture, Department of Electrical and Electronics Engineering

Supported Projects

1. ÖZKORUCUKLU S., ALBROW M., PENZO A., GÜRKAN G., AYDİLEK O., HACIŞAHİNOĞLU B., Project Supported by Higher Education Institutions, CMS Detektöründe Çok İleri Bölge Fizik Analizleri ve FACET Forward Aperture CMS ExTension Detektör Tasarım Çalışmaları, 2022 - Continues
2. Gürkan G., Özkorucuklu S., Oktayoğlu S., Project Supported by Higher Education Institutions, Development of a multi-modal gel imaging system, 2022 - 2024
3. Özkorucuklu S., Sert H., Şahin Yalçın L., Çeliktaş C., Zorbilmez Ç., Hoş İ., Gürkan G., Işıldak B., Kaynak B., Aggez G., et

al., Project Supported by Other Official Institutions, CMS Detektöründe Çok İleri Bölge Fizik Analizleri, İnklusif pp Etkileşmeleri, PPS (Hassas Proton Spektrometresi) Hassas Zaman Ölçüm Detektörü ve HCAL (Hadronik Kalorimetre) Faz 2. Güncelleme Çalışmaları, 2020 - 2023

4. ÖZKORUCUKLU S., SOYLAMIŞ A., ŞAHİN YALÇIN L., KAYNAK B., GÜRKAN G., SERT H., ZORBİLMEZ Ç., Project Supported by Higher Education Institutions, CERN CMS Deneyi Üyeliği Yüksek Enerji Fiziği ve Detektör Geliştirme Çalışmaları, 2018 - 2022
5. Gürkan G., Çalışkan A., Project Supported by Higher Education Institutions, Baskılı devre kartları için düşük maliyetli otomatik kusur tespit sisteminin geliştirilmesi, 2020 - 2021
6. Gürkan G., Topuz E., TUBITAK Project, Dizgi Makinaları ile Üretilen Baskı Devrelerdeki Montaj Hatalarını Bulan Sistem, 2019 - 2020
7. Gürkan G., Güler A., TUBITAK Project, Uzaktan Gözlemlenebilen Laboratuvar Tüp Çeviricisi, 2016 - 2017
8. Gürkan G., Işıklar G., TUBITAK Project, Kuyumcular İçin Koçan Kesme İşlemini Kolaylaştıran Cihaz, 2016 - 2017
9. Gürkan G., Öner M. H., TUBITAK Project, Sıcaklık ve Nem Haritalama Ölçümlernde Kullanılabilecek Düşük Güçlü Algılayıcı ve Kayıt Modülünün Geliştirilmesi, 2016 - 2017
10. Gürkan G., Fırat E., TUBITAK Project, Çift Mikrofon Yardımıyla Ses Kaynağı Konum Tayini, 2015 - 2016
11. Türker Şener L., Gürkan G., Gürkan K., Project Supported by Other Official Institutions, GERÇEK ZAMANLI HÜCRE SAYIM VE GÖRÜNTÜLEME CİHAZI TASARIMI, 2015 - 2016
12. Gürkan G., Acı H. F., TUBITAK Project, GPS ile Rotası Tanımlanabilen İnsansız Kara Taşıtı, 2014 - 2015

Published journal articles indexed by SCI, SSCI, and AHCI

1. **PyTHang: an open-source wearable sensor system for real-time monitoring of head-torso angle for ambulatory applications**
   Gurkan G.
   COMPUTER METHODS IN BIOMECHANICS AND BIOMEDICAL ENGINEERING, vol.24, no.9, pp.1003-1018, 2021 (SCI-Expanded)
2. **Incu-Stream 1.0: An Open-Hardware Live-Cell Imaging System Based on Inverted Bright-Field Microscopy and Automated Mechanical Scanning for Real-Time and Long-Term Imaging of Microplates in Incubator**
   Gurkan G., GÜRKAN K.
   IEEE ACCESS, vol.7, pp.58764-58779, 2019 (SCI-Expanded)
3. **A novel EOG-based wireless rapid communication device for people with motor neuron diseases**
   Usakli A. B., Gurkan S., Gurkan G., Kaya A.
   Journal of Medical Engineering and Technology, vol.42, no.6, pp.420-425, 2018 (SCI-Expanded)
4. **Analysis of brain connectivity changes after propofol injection by generalized partial directed coherence**
   Gurkan G., Akan A., Seyhan T.
   DIGITAL SIGNAL PROCESSING, vol.25, pp.156-163, 2014 (SCI-Expanded)

Articles Published in Other Journals

1. **Desktop Cosmic Muon Detector and First Observation Results**
   Güver T., Özkorucuklu S., Bostancı Güver Z. F., Gürkan G., Polatoğlu A., Yeşilyaprak C.
   Turkish Journal of Astronomy and Astrophysics, vol.0, no.0, 2023 (Peer-Reviewed Journal)
2. **An Open-Source User Interface Development for Widely Used Low-cost Spectrometer Designs**
   Gurkan G.
   ELECTRICA, vol.20, no.2, pp.133-142, 2020 (ESCI)
3. **TEXTURE ANALYSIS BASED IRIS RECOGNITION**
   GÜRKAN G., Akan A.

ISTANBUL UNIVERSITY-JOURNAL OF ELECTRICAL AND ELECTRONICS ENGINEERING, vol.6, no.1, pp.13-17, 2006 (ESCI)

Refereed Congress / Symposium Publications in Proceedings

1. **Design and Realization of an Automatic Optical Inspection System for PCB Solder Joints**
   Çalışkan A., Gürkan G.
   International Conference on INnovations in Intelligent SysTems and Applications (INISTA), Kocaeli, Turkey, 25 - 27 August 2021, pp.1-8
2. **Wireless dual accelerometer wearable system for torso-head angle measurement during walking**
   Gurkan G., Onerge K., Akalan N. E.
   26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
3. **An Arduino UNO application: GPS guided unmanned ground vehicle**
   Bozik T., GÜRKAN G.
   10th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 30 November - 02 December 2017, pp.852-855
4. **Wireless 3-axis accelerometer system for measurement of structural displacement**
   Gürkan K., Gürkan G., Dindar A. A., Akpınar B., Gülal V. E.
   ELECO 2013, Bursa, Turkey, 28 - 30 November 2013, pp.1-4
5. **Application of Stockwell Coherence To Prediction Of Alertness Under Anaesthesia**
   Gurkan G., Akan A., Demiralp T.
   20th International EURASIP Conference (BIOSIGNAL), Brno, Czech Republic, 01 June 2010, pp.81-86

Academic and Administrative Experience

2021 - 2023	**Deputy Head of Department**	Istanbul University, Faculty Of Science, Department Of Physics
2019 - 2021	**Uygulama ve Araştırma Merkezi Yönetim Kurulu Üyesi**	Istanbul Kultur University
2018 - 2021	**Deputy Head of Department**	Istanbul Kultur University, Faculty Of Engıneerıng, Department Of Electronıcs Engıneerıng (Englısh)

Advising Theses

Gürkan G., DEVELOPMENT OF A LOW-COST AUTOMATED PCB DEFECT SYSTEM, Postgraduate, A.ÇALIŞKAN(Student), 2021

Patent

Türker Şener L., Gürkan K., Gürkan G., Real-time live-cell imaging and analysis device for cell culture system, Utility Model, CHAPTER G Physics, The Invention Registration Number: 2016 06698 , Standard Registration, 2016

Metrics

Publication: 12
Citation (WoS): 18
Citation (Scopus): 23
H-Index (WoS): 2
H-Index (Scopus): 3

Research Areas

Simulation and Modelling, Integrated Circuits, Human Computer Interaction, Programming Languages, Bioinstrumentation and Microelectromechanical Systems (MEMS), Biomedical Image Processing, Motion Analysis, Biosignal Processing, Circuit Theory, Sensing Devices and Transducers, Electronic Circuits, Passive Circuit Components, Cables, Switches and Connectors, Computer Aided Design and Manufacturing

Non Academic Experience

Neurostim Arge Mühendislik Ltd. Şti.
LKG Mühendislik ve Arge Hizmetleri San. Tic. Ltd. Şti.