

## Asst. Prof. MUSTAFA İSTANBULLU

### Personal Information

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### International Researcher IDs

ORCID: 0000-0001-5414-7380

Publons / Web Of Science ResearcherID: J-1088-2018

Yoksis Researcher ID: 102813

### Education Information

Doctorate, Cukurova University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği,  
Turkey 2013 - 2020

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Biomedical Engineering  
Department, Turkey 2010 - 2013

Undergraduate, Erciyes University, Mühendislik Fakültesi, Elektrik- Elektronik Mühendisliği ,  
Turkey 2006 - 2010

### Foreign Languages

English, C1 Advanced

### Dissertations

Doctorate, Design and Simulation of A Carbon Nanotube Hybridized Field Effect Transistor Biopotential Sensor,  
Cukurova University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği, 2020

Postgraduate, Early Diagnosis of Osteoporosis Using Artificial Neural Network and Support Vector Machines, Istanbul  
Technical University, Biyomedikal Müh., 2013

### Research Areas

Bioinstrumentation and Microelectromechanical Systems (MEMS), Printed Circuits, Thin Film, Thick Film and Hybrid ICs,  
Sensing Devices and Transducers, Electronic Circuits, Nanotechnology, Semiconducting Materials and Devices

### Academic Titles / Tasks

Assistant Professor, Cukurova University, Mühendislik Fakültesi, Biyomedikal Mühendisliği, 2021 - Continues

Research Assistant, Cukurova University, Mühendislik Fakültesi, Biyomedikal Mühendisliği, 2012 - 2021

## Academic and Administrative Experience

Deputy Head of Department, Cukurova University, Mühendislik Fakültesi, Biyomedikal Mühendisliği, 2021 - Continues  
Researcher, Istanbul Aydin University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering,  
2011 - 2012

## Courses

Introduction to Nanoelectronics, Postgraduate, 2021 - 2022  
Electronics Lab. 1, Undergraduate, 2021 - 2022  
Computer Aided Electronics Design, Undergraduate, 2021 - 2022  
Electronics 1, Undergraduate, 2021 - 2022  
Electronics 2, Undergraduate, 2021 - 2022  
Semiconductor Microfabrication, Postgraduate, 2021 - 2022  
Electronics Lab. 2, Undergraduate, 2021 - 2022

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

- I. **An ANN-Based Single Calibration Impedance Measurement System for Skin Impedance Range**  
İstanbul M., Avcı M.  
IEEE Sensors Journal, vol.21, no.3, pp.3776-3783, 2021 (SCI-Expanded)
- II. **Novel multiwalled carbon nanotube (MWCNT) modified metal oxide semiconductor field effect transistor (MOSFET) based electrode for electrophysiological measurements on human skin**  
İSTANBULLU M., AVCI M.  
INSTRUMENTATION SCIENCE & TECHNOLOGY, vol.47, no.5, pp.545-563, 2019 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Evaluation of CNT/MOSFET Based Active Electrode with ECG, EMG, and EEG Signals**  
İstanbul M., Avcı M.  
Çukurova Üniversitesi Mühendislik Mimarlık Fakültesi Dergisi, vol.35, no.3, pp.699-709, 2020 (Peer-Reviewed Journal)
- II. **Low Voltage Two Stage CMOS Operational Amplifier Design for Biomedical Applications**  
İstanbul M., Avcı M.  
International Journal of Management and Applied Science, vol.6, no.7, pp.75-81, 2020 (Peer-Reviewed Journal)
- III. **Authentication of Ottoman Art Calligraphers**  
UCAN O. N., İSTANBULLU M., KILINC N., KALA A.  
INTERNATIONAL JOURNAL OF ELECTRONICS; MECHANICAL and MECHATRONICS ENGINEERING, no.2, pp.215-224, 2012 (Peer-Reviewed Journal)
- IV. **Traffic Sign Recognition With Video Processing Technique**  
AYDIN M., CALIK E., İSTANBULLU M.  
INTERNATIONAL JOURNAL OF ELECTRONICS; MECHANICAL and MECHATRONICS ENGINEERING, vol.2, no.2, pp.190-194, 2012 (Peer-Reviewed Journal)
- V. **Elektrik Dağıtım Sistemlerinde Enerji Kalitesi Sistem Bozulmaları ve Giderme Teknikleri**  
SAYGIN H., İSTANBULLU M., UCAN O. N.  
TSE, Standard Ekonomik ve Teknik Dergi, no.589, pp.43-45, 2011 (Non Peer-Reviewed Journal)

## Books & Book Chapters

- I. **Microelectronics Laboratory Experiments 1**

İstanbulu M., Avcı M.

Karahan Kitabevi Yayınları, Adana, 2021

## II. **Microelectronics Laboratory Experiments 2**

İstanbulu M., Avcı M.

Karahan Kitabevi Yayınları, Adana, 2020

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

- I. **Design and Simulation of a Graphene Based Dual-Gate ISFET Microsensor**  
İSTANBULLU M., HARB A.  
26th International Biomedical Science and Technology Symposium (BIOMED 2022), 25 November 2022
- II. **MINTERM AND MAXTERM BASED FUCTIONAL ANALYSIS METHOD FOR LOGIC CIRCUITS**  
İstanbulu M., Avcı M.  
4 TH INTERNATIONAL CONGRESS ON ENGINEERING AND TECHNOLOGY MANAGEMENT, İstanbul, Turkey, 13 - 14 November 2020, pp.25-31
- III. **A PROGRAMMABLE SYSTEM ON CHIP IMPLEMENTATION OF SECOND GENERATION CURRENT CONVEYOR**  
İstanbulu M., Avcı M.  
4thINTERNATIONAL CONGRESS ON ENGINEERING AND TECHNOLOGY MANAGEMENT, İstanbul, Turkey, 13 - 14 November 2020, pp.32-38
- IV. **A Novel Logarithmic Amplifier with Second Generation Current Conveyors**  
İstanbulu M., Avcı M.  
4th International Conference on Engineering Technologies, Konya, Turkey, 19 - 21 November 2020, pp.1
- V. **Low Voltage Two Stage CMOS Operational Amplifier Design for Biomedical Applications**  
İstanbulu M., Avcı M.  
656th International Conference On Electrical and Electronics Engineering (ICEEE), Hamburg, Germany, 4 - 05 April 2020, pp.1-7
- VI. **Microfabrication Process Design of Low Voltage Depletion Type N-MOSFET for Biopotential Sensing**  
İSTANBULLU M., AVCI M.  
5th International Conference on Materials Science and Nanotechnology For Next Generation (MSNG2018), Nevşehir, Turkey, 04 October 2018 - 06 October 2019, pp.117-121
- VII. **Early diagnosis of osteoporosis using artificial neural networks and support vector machines Yapay sinir ağları ve destek vektör makineleri kullanarak kemik erimesi hastalığının erken teşhisi**  
İstanbulu M., Aydın M., Benveniste R., Uçan O. N., JENNANE R.  
2012 20th Signal Processing and Communications Applications Conference, SIU 2012, Fethiye, Muğla, Turkey, 18 - 20 April 2012
- VIII. **Yapay Sinir Ağları ve Destek Vektör Makineleri Kullanarak Kemik Erimesi Hastalığının Erken Teşhisi**  
İSTANBULLU M., AYDIN M., BENVENİSTE R., UÇAN O. N.  
SIU 2012, Turkey, 18 - 20 April 2012

## **Supported Projects**

İSTANBULLU M., OĞUZHAN B., Project Supported by Higher Education Institutions, Empedans Haritalama Yaklaşımı ile Anormal Cilt Dokularının Boyut Analizi, 2022 - Continues

İSTANBULLU M., HARB A. W. M., Project Supported by Higher Education Institutions, Design and simulation of a Graphene based Dualgate ISFET microsensor, 2022 - 2024

AVCI M., GÜVEN M., BAYSAL C. V., AYDIN A., İSTANBULLU M., ÖDEMİŞ E., KESKİNOĞLU C., Project Supported by Higher Education Institutions, BİYOMEDİKAL MÜHENDİSLİĞİ BÖLÜMÜ LİSANS ÖĞRENCİ LABORATUVARLARININ GENİŞLETİLMESİ VE GELİŞTİRİLMESİ, 2018 - 2019

## Patent

İstanbul M., PROGRAMLANABİLİR SİGARA İÇME SİMÜLATÖRÜ, Patent, CHAPTER G Physics, The Invention Registration Number: 2022 018975 , Standard Registration, 2023

İstanbul M., Avcı M., AN ANN BASED SINGLE CALIBRATION IMPEDANCE MEASUREMENT SYSTEM FOR SKIN IMPEDANCE RANGE, Patent, CHAPTER B Implementation of Operations; Transport, The Invention Registration Number: a 2020/22620 , Standard Registration, 2021

İstanbul M., Avcı M., CİLT EMPEDANS ARALIĞI İÇİN YSA TABANLI TEK KALİBRASYONLU EMPEDANS ÖLÇÜM SİSTEMİ, Patent, CHAPTER A Human Needs, The Invention Recourse Number: PCT/TR2020/051504 , Standard Registration, 2020

## Activities in Scientific Journals

International Journal of Sensors and Sensor Networks (IJSSN), Evaluation Committee Member, 2020 - Continues

## Scientific Refereeing

IEEE SENSORS JOURNAL, Journal Indexed in SCI-E, September 2022

TUBITAK Project, 2204-A High School Students Research Projects Competition , Cukurova University, Turkey, February 2022

INSTRUMENTATION SCIENCE & TECHNOLOGY, SCI Journal, October 2021

International Journal of Sensors and Sensor Networks (IJSSN), Other Indexed Journal, April 2020

## Metrics

Publication: 17

Citation (Scopus): 2

H-Index (Scopus): 1

## Non Academic Experience

İstanbul Aydın Üniversitesi

Türk Telekomünikasyon A.Ş

Nursan Elektrik Donanım A.Ş

Kumtel Elektrik A.Ş