

Assoc. Prof. İBRAHİM İŞİK

Personal Information

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International Researcher IDs

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Publons / Web Of Science ResearcherID: AAG-5915-2019

Yoksis Researcher ID: 55527

Education

Doctorate, Inonu University, Mühendislik Fakültesi, Elektrik Elektronik, Turkey 2014 - 2019

Postgraduate, Inonu University, Mühendislik Fakültesi, Elektrik Elektronik, Turkey 2012 - 2014

Undergraduate, Gaziantep University, Faculty Of Engineering, Elektrik Elektronik, Turkey 2006 - 2012

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, DİFÜZYON TABANLI NANO AĞLARDA AMYLOİD BETA'NİN MOLEKÜLER HABERLEŞME ÜZERİNDEKİ ETKİSİNİN ANALİZİ , Inonu University, Mühendislik Fakültesi, Elektrik Elektronik, 2019

Postgraduate, Geniş Bant Kablosuz Ağlarda Sembolik Modülasyonların Hata Analizi , Inonu University, Mühendislik Fakültesi, Elektrik Elektronik, 2014

Research Areas

Artificial Intelligence, Computer Learning and Pattern Recognition, Biomedical Engineering, Biosignal Processing, Engineering and Technology

Academic Positions

Assistant Professor, Inonu University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği, 2019 - Continues

Research Assistant, Inonu University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği, 2012 - 2019

Research Assistant, Danmarks Tekniske Universitet (Technical University of Denmark), engineering faculty, electrical electronics engineering, 2016 - 2016

Courses

Undergraduate

Elektrik Elektronik Tasarım I, Undergraduate, 2021-2022
Java Programming, Undergraduate, 2021-2022
Elektrik Elektronik Tasarım I, Undergraduate, 2020-2021
Electronic Lab., Undergraduate, 2020-2021
Elektrik Elektronik Tasarım II, Undergraduate, 2020-2021
C Programming, Undergraduate, 2020-2021
Java Programming, Undergraduate, 2020-2021
Elektrik Elektronik Tasarım II, Undergraduate, 2019-2020
Java Programming, Undergraduate, 2019-2020
C Programming, Undergraduate, 2019-2020
Electronic Lab., Undergraduate, 2019-2020
Elektrik Elektronik Tasarım I, Undergraduate, 2019-2020

Undergraduate Double Major

Olasılık ve Stokastik Prosesler, Undergraduate Double Major, 2021-2022
Olasılık ve Stokastik Prosesler, Undergraduate Double Major, 2020-2021
İleri Anten Teorisi, Undergraduate Double Major, 2020-2021
İleri Anten Teorisi, Undergraduate Double Major, 2019-2020

Journal articles indexed in SCI, SSCI, and AHCI

- I. **Analysis of molecular communication model via diffusion with cumulative distribution functions**
Işık İ., Işık E., Ateş A.
Gazi Üniversitesi Mühendislik Mimarlık Fakültesi Dergisi, vol.39, no.4, pp.2353-2362, 2024 (SCI-Expanded)
- II. **Effects of Sensor Size, Surface Material, and Contact Area on Pressure Measurements in Thin-Film Pressure Sensors**
Talu B., Işık İ., Candiri B., Candiri Y., Yapalıkan B.
IEEE SENSORS JOURNAL, vol.24, no.2, pp.1591-1597, 2024 (SCI-Expanded)
- III. **Analyzing of Alzheimer's Disease Based on Biomedical and Socio-Economic Approach Using Molecular Communication, Artificial Neural Network, and Random Forest Models**
Bayraktar Y., Isik E., IŞIK İ., ÖZYILMAZ A., Toprak M., Kahraman Guloglu F., Aydin S.
SUSTAINABILITY, vol.14, no.13, 2022 (SCI-Expanded)
- IV. **Synthesis and analysis of TiO₂ nanotubes by electrochemical anodization and machine learning method for hydrogen sensors**
Isik E., Tasyurek L. B., IŞIK İ., KILINÇ N.
MICROELECTRONIC ENGINEERING, vol.262, 2022 (SCI-Expanded)
- V. **Analysis of the electronic integrate and fire neuron model**
IŞIK İ., TAĞLUK M. E.
NEUROCOMPUTING, vol.488, pp.261-270, 2022 (SCI-Expanded)
- VI. **Analysis and classification of the mobile molecular communication systems with deep learning**
IŞIK İ., Er M. B., Isik E.
JOURNAL OF AMBIENT INTELLIGENCE AND HUMANIZED COMPUTING, 2022 (SCI-Expanded)
- VII. **How mobility of transmitter and receiver affects the communication quality**
IŞIK İ.
AIP ADVANCES, vol.12, no.2, 2022 (SCI-Expanded)
- VIII. **Interference and molecule reception probability analysis in nano/micro scale communication systems using Fick's diffusion law**
IŞIK İ., TAĞLUK M. E., Isik E.
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.37, no.2, pp.967-983, 2022 (SCI-Expanded)

- IX. **Artificial neural network modeling for the effect of fly ash fineness on compressive strength**
Sahin D. D., Isik E., IŞIK İ., ÇULLU M.
ARABIAN JOURNAL OF GEOSCIENCES, vol.14, no.23, 2021 (SCI-Expanded)
- X. **Parkinson's detection based on combined CNN and LSTM using enhanced speech signals with Variational mode decomposition**
Er M. B., Isik E., IŞIK İ.
BIOMEDICAL SIGNAL PROCESSING AND CONTROL, vol.70, 2021 (SCI-Expanded)
- XI. **Analysis and estimation of fading time from thermoluminescence glow curve by using artificial neural network**
Isik E., IŞIK İ., TOKTAMIŞ H.
RADIATION EFFECTS AND DEFECTS IN SOLIDS, vol.176, no.9-10, pp.765-776, 2021 (SCI-Expanded)
- XII. **Effect of receiver shape and volume on the Alzheimer disease for molecular communication via diffusion**
IŞIK İ., Yılmaz H. B., Demirkol I., TAĞLUK M. E.
IET NANOBIO TECHNOLOGY, vol.14, no.7, pp.602-608, 2020 (SCI-Expanded)
- XIII. **Analysis of thermoluminescence characteristics of a lithium disilicate glass ceramic using a nonlinear autoregressive with exogenous input model**
Isik E., TOKTAMIŞ H., IŞIK İ.
LUMINESCENCE, vol.35, no.6, pp.827-834, 2020 (SCI-Expanded)
- XIV. **Communication in nano devices: Electronic based biophysical model of a neuron**
TAĞLUK M. E., IŞIK İ.
NANO COMMUNICATION NETWORKS, vol.19, pp.134-147, 2019 (SCI-Expanded)
- XV. **Fpga Tabanlı Dijital Haberleşme Sistemlerinin System Generator Aracı İle Analizi**
IŞIK İ., TAĞLUK M. E.
Selçuk Journal of Applied Mathematics, vol.6, no.1, pp.25-31, 2018 (SCI-Expanded)

Articles Published in Other Journals

- I. **Classification of Alzheimer Disease with Molecular Communication Systems using LSTM**
IŞIK İ.
International Journal of Computational and Experimental Science and Engineering, vol.8, no.2, 2022 (Peer-Reviewed Journal)
- II. **Nano Sistemlerde Hücreler Arası Haberleşmenin Analiz Edilmesi**
IŞIK İ., TAĞLUK M. E., IŞIK E.
Journal of Intelligent Systems: Theory and Applications, vol.4, no.2, 2021 (Peer-Reviewed Journal)
- III. **Comparison of the Mobile and Fixed Nano/Micro-Scale Systems by Using Monte Carlo Simulation for Different Viscosity Values**
IŞIK E., IŞIK İ.
Journal of the Institute of Science and Technology, vol.11, no.4, pp.2695-2705, 2021 (Peer-Reviewed Journal)
- IV. **EFFECT OF THE VISCOSITY FOR MOBILE NANO SYSTEMS**
IŞIK E., IŞIK İ., TAĞLUK M. E.
Türk Doğa ve Fen Dergisi, vol.10, no.1, 2021 (Peer-Reviewed Journal)
- V. **LSTM TABANLI DERİN AĞLAR KULLANILARAK DİYABET HASTALIĞI TAHMİNİ**
ER M. B., IŞIK İ.
Türk Doğa ve Fen Dergisi, vol.10, 2021 (Peer-Reviewed Journal)
- VI. **Dose and fading time estimation of glass ceramic by using artificial neural network method**
IŞIK İ., IŞIK E., TOKTAMIŞ H.
DÜMF Mühendislik Dergisi, vol.12, no.1, pp.47-52, 2021 (Peer-Reviewed Journal)
- VII. **Characterization of the influence of Amyloid β (1-42) By Way of Modeling Synaptic Cleft with an RC Electronic Circuit**

- TAĞLUK M. E., IŞIK İ.
DÜMF Mühendislik Dergisi, vol.12, no.1, pp.53-59, 2021 (Peer-Reviewed Journal)
- VIII. **Analysis of Half Sphere receiver Model in molecular Communication Through Diffusion**
IŞIK İ., TAĞLUK M. E., ER M. B.
Journal of Physical Chemistry and Functional Materials, 2020 (Peer-Reviewed Journal)
- IX. **FPGA TABANLI DİJİTAL HABERLEŞME SİSTEMLERİNİN SYSTEM GENERATOR ARACI İLE ANALİZİ**
IŞIK İ., TAĞLUK M. E.
Selcuk Univ. J. Eng. Sci. Tech, vol.6, no.2, pp.255-265, 2018 (Peer-Reviewed Journal)
- X. **Stabilization of Switched Systems Using only a Single Fractional Order PI Controller**
HAMAMCI S. E., IŞIK İ.
BALKAN JOURNAL OF ELECTRICAL AND COMPUTER ENGINEERING, vol.2, no.3, pp.150-155, 2014 (Peer-Reviewed Journal)

Papers Presented at Peer-Reviewed Scientific Conferences

- I. **Single Input Multi Output Model of Molecular Communication via Diffusion with Spheroidal Receivers**
IŞIK İ., razaei m., Noel A.
8TH WORKSHOP ON MOLECULAR COMMUNICATIONS, Norway, 28 March 2024, (Full Text)
- II. **Biophysical Model for Signal-Embedded Droplet Soaking into 2D Cell Culture**
IŞIK İ., Arjmandi H., Corre C., Noel A.
Proceedings of the 10th ACM International Conference on Nanoscale Computing and Communication, Coventry, England, 20 - 22 September 2023, (Full Text)
- III. **Sesli Ve Görsel Uyaranlı Yürüme Platformu-Step On It**
CANDİRİ B., candiri y., TALU B., IŞIK İ., yapalican b. r.
4th International Conference on Applied Engineering and Natural Sciences, Konya, Turkey, 10 November 2022, (Summary Text)
- IV. **THE EFFECT OF CRYSTAL STRUCTURE AND METAL ELECTRODES ON GAS DETECTION IN TiO₂ NANOTUBES H₂ SENSORS**
TAŞYÜREK L. B., IŞIK E., IŞIK İ., KILINÇ N.
23rd World Hydrogen Energy Conference (WHEC-2022), İstanbul, Turkey, 26 - 30 June 2022, (Full Text)
- V. **Investigation of Factors Affecting Radar Systems with Fuzzy Logic Method**
yapalican b. r., IŞIK İ., ER M. B.
1st International Conference on Advances in Engineering, Turkey, 15 December 2021, (Full Text)
- VI. **MEASUREMENT ACCURACY OF THIN FILM PRESSURE SENSORS AT DIFFERENT SIZES**
YAPALIKAN B. R., CANDİRİ Y., IŞIK İ., CANDİRİ B., TALU B.
International Conference on Engineering Technologies (ICENTE'21), Konya, Turkey, 18 November 2021, pp.9, (Summary Text)
- VII. **MEASUREMENT ACCURACY OF THIN FILM PRESSURE SENSORS AT DIFFERENT SURFACES**
YAPALIKAN B. R., CANDİRİ Y., IŞIK İ., CANDİRİ B., TALU B.
International Conference on Engineering Technologies (ICENTE'21), Konya, Turkey, 18 - 20 November 2021, pp.10, (Summary Text)
- VIII. **A deep learning Based Model for Nano Communication Systems**
IŞIK İ., ER M. B., IŞIK E.
The World Conference on Nanotechnology Research and Applications, United States Of America, 20 - 21 September 2021, (Summary Text)
- IX. **Hareketli Moleküler İletişim Sistemlerinde Sinyal Alımının Anten Kullanılarak Analizi**
atamış f. b., IŞIK İ.
29th Signal Processing and Communications Applications Conference (SIU), Turkey, 09 June 2021, (Full Text)
- X. **Effect of Diffusion Constant on the Nano Scales Systems**

IŞIK E., IŞIK İ.

3rd International Conference on Physical Chemistry and Functional Materials (PCFM'20), Malatya, Turkey, 22 - 24 September 2020, vol.2, pp.70, (Summary Text)

- XI. **Analyze of the Number of Received Molecules by using Mobile Receiver in Molecular Communication**
IŞIK İ., IŞIK E.

3rd International Conference on Physical Chemistry and Functional Materials (PCFM'20), Malatya, Turkey, 22 - 24 September 2020, vol.2, pp.69, (Summary Text)

- XII. **Effect of $A\beta$ on the Probability of Molecule Reception in MCvD**

IŞIK E., IŞIK İ., TAĞLUK M. E.

3rd International Conference on Data Science and Applications (ICONDATA'20, İstanbul, Turkey, 25 - 28 June 2020, vol.2, pp.48, (Summary Text)

- XIII. **Analysis of Fading Time Data of Glow Curve by Using Artificial Neural Network**

IŞIK İ., IŞIK E., toktamış h.

3rd International Conference on Data Science and Applications (ICONDATA'20), İstanbul, Turkey, 25 - 28 June 2020, vol.2, pp.1, (Summary Text)

- XIV. **STATISTICAL BASED ANALYSIS OF ALZHEIMER'S DISEASE**

IŞIK İ., TAĞLUK M. E.

5th International Regional Development Conference (IRDC'2019), Turkey, 26 - 28 September 2019, (Full Text)

- XV. **ANALYSIS of RECEPTOR MODELS in MOLECULAR COMMUNICATION via DIFFUSION**

IŞIK İ., ışık e.

2nd International Conference on Advanced Engineering Technologies, Bayburt, Turkey, 21 - 23 September 2017, pp.1-5, (Summary Text)

- XVI. **A Preliminary Investigation of Receiver Models in Molecular Communication via Diffusion**

IŞIK İ., TAĞLUK M. E., Yılmaz H. B.

2nd International Conference on Artificial Intelligence and Data Processing (IDAP17), Malatya, Turkey, 16 - 17 September 2017, pp.1-5, (Full Text)

- XVII. **Comparison of HDL Coder and System Generator Tools in terms of QPSK Analysis**

IŞIK İ., TAĞLUK M. E.

2nd International Conference on Artificial Intelligence and Data Processing (IDAP17), Malatya, Turkey, 16 - 17 September 2017, pp.1-5, (Full Text)

- XVIII. **Fpga Based Analysis Methods in TL and OSL Studies**

IŞIK İ., ışık e.

2nd International Energy and Engineering Conference, Gaziantep, Turkey, 12 - 14 September 2017, pp.1-4, (Summary Text)

- XIX. **Analysis Methods in Molecular Communication via Diffusion**

IŞIK İ., TAĞLUK M. E.

2nd International Energy and Engineering Conference, Gaziantep, Turkey, 12 - 14 September 2017, pp.1-5, (Summary Text)

- XX. **Comparison of HDL Coder and System Generator Tools in terms of QPSK Analysis**

IŞIK İ., TAĞLUK M. E.

2017 International Artificial Intelligence and Data Processing Symposium (IDAP), Malatya, Turkey, 16 - 17 September 2017, (Full Text)

- XXI. **A Preliminary Investigation of Receiver Models in Molecular Communication via Diffusion**

IŞIK İ., Yılmaz H. B., TAĞLUK M. E.

2017 International Artificial Intelligence and Data Processing Symposium (IDAP), Malatya, Turkey, 16 - 17 September 2017, (Full Text)

- XXII. **Kaos Türetim Yöntemi ile Yeni bir Kaotik Sistem**

Hamamcı S. E., Gögebakan V., Işık İ.

IEEE 23. Sinyal İşleme ve İletişim Uygulamaları Kurultayı, Malatya, Turkey, 16 May 2015, (Full Text)

- XXIII. **Kaos Türetim Yöntemi ile Yeni bir Kaotik Sistem**

HAMAMCI S. E., gögebakan v., IŞIK İ.

- Sinyal İşleme ve İletişim Uygulamaları Kurultayı, Malatya, Turkey, 16 - 19 May 2015, pp.1-5, (Full Text)
- XXIV. **A New Chaotic System with Chaos Entanglement**
HAMAMCI S. E., GOGEBAKAN V., IŞIK İ.
23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015, pp.2597-2600, (Full Text)
- XXV. **Bozucu Model Yöntemi ile Çok Girişli-Çok Çıkışlı Sistemlerin Kontrolü**
IŞIK İ., HAMAMCI S. E., gögebakan v., köksal m.
Otomatik Kontrol Ulusal Toplantısı, Kocaeli, Turkey, 11 - 13 September 2014, pp.1-5, (Full Text)
- XXVI. **Bozucu Model Yöntemi ile Çok Girişli-Çok Çıkışlı Sistemlerin Kontrolü**
Işık İ., Hamamcı S. E., Gögebakan V., Köksal M.
Otomatik Kontrol Ulusal Toplantısı, Kocaeli, Turkey, 11 - 13 September 2014, pp.1-5, (Full Text)
- XXVII. **Darbe Generatörünün Maksimum Enerjisi Hakkında Varyasyonel Problem**
ALİSOY H., ALİSOY G. T., KELEŞ C., DENİZ F. N., IŞIK İ., İÇEL Y.
Otomatik Kontrol Ulusal Toplantısı, TOK2013, Malatya, Turkey, 26 - 28 September 2013, pp.1272-1276, (Full Text)
- XXVIII. **Darbe Generatörünün Maksimum Enerjisi Hakkında Varyasyonel Problem**
ALİSOY H., ALİSOY G. T., KELEŞ C., DENİZ F. N., IŞIK İ., İÇEL Y.
Otomatik Kontrol Ulusal Toplantısı, TOK2013, Malatya, Turkey, 26 - 28 September 2013, pp.1272-1276, (Full Text)
- XXIX. **Anahtarlama Sistemleri Kararlı Yapan PI Kontrolör Setinin Hesabı**
IŞIK İ., HAMAMCI S. E.
Otomatik Kontrol Ulusal Toplantısı, Malatya, Turkey, 25 - 27 September 2013, pp.1-5, (Full Text)
- XXX. **Darbe Generatörünün Maksimum Enerjisi Hakkında Varyasyonel Problem**
alisoy h., alisoy g., KELEŞ C., DENİZ F. N., IŞIK İ., içel y.
Otomatik Kontrol Ulusal Toplantısı, Malatya, Turkey, 25 - 27 September 2013, pp.1-5, (Full Text)
- XXXI. **Anahtarlama Sistemleri Kararlı Yapan PI Kontrolör Setinin Hesabı**
Işık İ., Hamamcı S. E.
Otomatik Kontrol Ulusal Toplantısı, Malatya, Turkey, 25 - 27 September 2013, pp.1-5, (Full Text)
- XXXII. **Darbe Generatörünün Maksimum Enerjisi Hakkında Varyasyonel Problem**
alisoy h., alisoy g., KELEŞ C., DENİZ F. N., IŞIK İ., içel y.
Otomatik Kontrol Ulusal Toplantısı, Malatya, Turkey, 25 - 27 September 2013, pp.1-5, (Full Text)

Funded Projects

- KILINÇ N., HARPUTLUOĞLU M. M. M., IŞIK İ., TAŞYÜREK L. B., IŞIK E., Project Supported by Higher Education Institutions, Nefesten Gastroenterolojik Hastalıkların Teşhisi için Nanoyapılı Sensör Dizisi Üretimi, 2024 - Continues
- KILINÇ N., IŞIK İ., ERKOVAN M., Project Supported by Higher Education Institutions, Nanoyapılı Pd alaşımların üretimi yapısal karakterizasyonu elektriksel ve hidrojen algılama özelliklerinin belirlenmesi, 2023 - Continues
- KILINÇ N., IŞIK E., TAŞYÜREK L. B., TOSUN E., IŞIK İ., Project Supported by Higher Education Institutions, SiC Schottky Diyot Üretimi ve Farklı Uygulama Alanlarının Araştırılması, 2023 - Continues
- KILINÇ N., IŞIK İ., ÖZTÜRK S., Project Supported by Higher Education Institutions, Fonksiyonelleştirilmiş ZnO nanoyapıların üretimi yapısal karakterizasyonu elektriksel ve gaz algılama özelliklerinin belirlenmesi, 2021 - 2023
- TALU B., IŞIK İ., CANDİRİ Y., CANDİRİ B., Project Supported by Higher Education Institutions, Sesli ve Görsel Uyaranlı Yürüme Platformu "Step On It", 2021 - 2022
- IŞIK İ., IŞIK E., TAŞYÜREK L. B., AK F., Project Supported by Higher Education Institutions, TiO2 Nanotüp H2 Sensörü Geliştirilmesi ve Akım Gelirim Karakteristiğinin Analizi, 2020 - 2021
- TAĞLUK M. E., IŞIK İ., Project Supported by Higher Education Institutions, Difüzyon Tabanlı Nano Ağlarda Amyloid Beta'nın Moleküler Haberleşme Üzerindeki Etkisinin Analizi, 2019 - 2020
- TAĞLUK M. E., KÖSEOĞLU M., IŞIK İ., Project Supported by Higher Education Institutions, DİFÜZYON TABANLI NANO AĞLARDA MOLEKÜLER HABERLEŞMENİN MODELLEMESİ, 2018 - 2020
- TAĞLUK M. E., IŞIK İ., TUBITAK Project, Alanda programlanabilir kapı dizileri (FPGA) kullanarak bir sayısal haberleşme sistem tasarımı ve analizi, 2016 - 2017

Metrics

Publication: 59

Citation (WoS): 26

Citation (Scopus): 3

H-Index (WoS): 3

H-Index (Scopus): 1

Non Academic Experience

Murph's Marketplace, Personnel