

Prof. Tahir Çetin Akıncı

Personal Information

Office Phone: [+90 1111 111 11111111](tel:+901111111111)

Fax Phone: [+90 1111 111 1111111111](tel:+901111111111)

Email: akincitc@itu.edu.tr

Web: <https://avesis.itu.edu.tr/akincitc>

Address: Istanbul Technical University, Electrical & Electronics Faculty, Department of Electrical Engineering, İstanbul, Turkey

International Researcher IDs

ScholarID: GR2VnR4AAAAJ

ORCID: 0000-0002-4657-6617

Publons / Web Of Science ResearcherID: A-2838-2016

ScopusID: 16229256000

Yoksis Researcher ID: 40367

Education Information

Undergraduate, Klaipedos Universitetas, Electrical Engineering, Lithuania 2009 - 2012

Doctorate, Marmara University, Fen Bilimleri Enstitüsü, Elektrik Eğitimi (Dr), Turkey 2005 - 2009

Postgraduate, Marmara University, Fen Bilimleri Enstitüsü, Elektrik Eğitimi Bölümü, Turkey 2003 - 2005

Dissertations

Doctorate, Güç sistemlerinde ferrorezonans olayının spektral ve dalgacık analizi yöntemleriyle belirlenmesi, Marmara Üniversitesi, Fen Bilimleri Enstitüsü, Elektrik Eğitimi (Dr), 2009

Research Areas

Information Systems, Communication and Control Engineering, Signal Processing, Signal Processing Theory and Methods, Computer Sciences, Artificial Intelligence, Computer Learning and Pattern Recognition, Human Computer Interaction, Electrical and Electronics Engineering, Electronic, Sensing Devices and Transducers, Energy, Renewable energy, Engineering and Technology

Academic Titles / Tasks

Associate Professor, Istanbul Technical University, Elektrik-Elektronik, Elektrik Mühendisliği, 2016 - 2020

Research Assistant, Marmara University, Elektrik Eğitimi Bölümü, 2003 - 2010

Academic and Administrative Experience

Vice Dean, Istanbul Technical University, Elektrik-Elektronik, 2020 - 2021

Vice Dean, Istanbul Technical University, Fen Bilimleri Enstitüsü, 2019 - 2020

Kırklareli Üniversitesi, Mühendislik Fakültesi, 2011 - 2013

Courses

Computer Networks for Power Systems, Undergraduate, 2019 - 2020

Sayısal Elektronik Devreler, Undergraduate, 2017 - 2018

introduction to computer science using python, Undergraduate, 2017 - 2018

Published journal articles indexed by SCI, SSCI, and AHCI

- I. An Innovative Approach to Electrical Motor Geometry Generation using Machine Learning and Image Processing Techniques
DEMİR U., AKGÜN G., AKÜNER M. C., Pourkarimi M., AKGÜN Ö., Akıncı T. Ç.
IEEE Access, vol.11, pp.48651-48666, 2023 (SCI-Expanded)
- II. Estimating Average Power of Welding Process with Emitted Noises based on Adaptive Neuro Fuzzy Inference System
GÖKMEN G., Akıncı T. Ç., Kocyigit G., KIYAK İ., İlhan Akbas M.
IEEE Access, vol.11, pp.39154-39164, 2023 (SCI-Expanded)
- III. Optimizing Security Systems with an Optimum Design of a Hybrid Renewable Energy System
Kiyak M. H., Pürlü M., Emre Turkay B., Akıncı T. Ç.
Electric Power Components and Systems, 2023 (SCI-Expanded)
- IV. Algorithms to Measure Area and Volume on 3D Face Models for Facial Surgeries
Topsakal O., Sawyer P., Akıncı T. Ç., Celikoyer M.
IEEE Access, 2023 (SCI-Expanded)
- V. Machine Learning-Based Error Correction Codes and Communication Protocols for Power Line Communication: An Overview
Akıncı T. Ç., Erdemir G., Zengin A. T., Şeker Ş. S., Idriss A. I.
IEEE Access, vol.11, pp.124760-124781, 2023 (SCI-Expanded)
- VI. Feature Extraction and NN-based Enhanced Test Maneuver Deployment for 2 DoF Vehicle Simulator
DEMİR U., AKGÜN G., AKÜNER M. C., Demirci B., AKGÜN Ö., Akıncı T. Ç.
IEEE Access, vol.11, pp.36218-36232, 2023 (SCI-Expanded)
- VII. Diagnosis of Chaotic Ferroresonance Phenomena Using Deep Learning
NOĞAY H. S., Akıncı T. Ç., Akbas M. I., Tokic A.
IEEE Access, vol.11, pp.58937-58946, 2023 (SCI-Expanded)
- VIII. Automatic detection of brain tumors with the aid of ensemble deep learning architectures and class activation map indicators by employing magnetic resonance images
Turk O., Ozhan D., Acar E., Akıncı T. Ç., Yilmaz M.
Zeitschrift fur Medizinische Physik, 2023 (SCI-Expanded)
- IX. Assessment of Hematological Predictors via Explainable Artificial Intelligence in the Prediction of Acute Myocardial Infarction
Yilmaz R., YAĞIN F. H., Raza A., ÇOLAK C., Akıncı T. Ç.
IEEE Access, vol.11, pp.108591-108602, 2023 (SCI-Expanded)
- X. Detecting Facial Landmarks on 3D Models Based on Geometric Properties – A Review of Algorithms, Enhancements, Additions and Open-Source Implementations
Topsakal O., Akıncı T. Ç., Murphy J., Preston T., Celikoyer M.
IEEE Access, vol.11, pp.25593-25603, 2023 (SCI-Expanded)
- XI. Utilization of Machine Learning for the Objective Assessment of Rhinoplasty Outcomes
Topsakal O., Dobratz E. J., Akbas M. I., Dougherty W. M., Akıncı T. Ç., Celikoyer M. M.
IEEE Access, vol.11, pp.42135-42145, 2023 (SCI-Expanded)

- XII. High Order Spectral Analysis of Ferroresonance Phenomena in Electric Power Systems**
 Akıncı T. Ç., AKGÜN Ö., Yilmaz M., Martinez-Morales A. A.
 IEEE Access, vol.11, pp.61289-61297, 2023 (SCI-Expanded)
- XIII. Detection of invisible cracks in ceramic materials using by pre-trained deep convolutional neural network**
 NOĞAY H. S., Akıncı T. C., YILMAZ M.
 NEURAL COMPUTING & APPLICATIONS, vol.34, no.2, pp.1423-1432, 2022 (SCI-Expanded)
- XIV. Classification of operation cases in electric arc welding wachine by using deep convolutional neural networks**
 NOĞAY H. S., Akıncı T. Ç.
 NEURAL COMPUTING & APPLICATIONS, vol.33, no.12, pp.6657-6670, 2021 (SCI-Expanded)
- XV. A THERMAL QUANTUM CLASSIFIER**
 Korkmaz U., Türkpençe D., Akıncı T. Ç., Seker S.
 QUANTUM INFORMATION & COMPUTATION, vol.20, pp.969-986, 2020 (SCI-Expanded)
- XVI. Measurement of Power Line Sagging Using Sensor Data of a Power Line Inspection Robot**
 Zengin A. T., Erdemir G., Akıncı T. Ç., Seker S.
 IEEE ACCESS, vol.8, pp.99198-99204, 2020 (SCI-Expanded)
- XVII. Analysis of instantaneous frequency, instantaneous amplitude and phase angle of ferroresonance in electrical power networks**
 AKGÜN Ö., Akıncı T. Ç., Erdemir G., Seker S.
 JOURNAL OF ELECTRICAL ENGINEERING-ELEKTROTECHNICKY CASOPIS, vol.70, no.6, pp.494-498, 2019 (SCI-Expanded)
- XVIII. Wind energy potential and micro-turbine performance analysis in Djibouti-city, Djibouti**
 Ibrahim Idris A., Ali Ahmed R., Idriss Oma A., Kassim Said R., AKINCI T. Ç.
 ENGINEERING SCIENCE AND TECHNOLOGY-AN INTERNATIONAL JOURNAL-JESTECH, 2019 (SCI-Expanded)
- XIX. A steady state quantum classifier**
 Türkpençe D., Akıncı T. Ç., Seker S.
 PHYSICS LETTERS A, vol.383, no.13, pp.1410-1418, 2019 (SCI-Expanded)
- XX. Analysis of Gait Dynamics of ALS Disease and Classification of Artificial Neural Networks**
 Akgun O., Akan A., Demir H., Akıncı T. Ç.
 TEHNICKI VJESNIK-TECHNICAL GAZETTE, vol.25, pp.183-187, 2018 (SCI-Expanded)
- XXI. Fast fourier transformation of emitted noises from welding machines and their classification with acoustic method**
 Gokmen G., Akgun O., Akıncı T. Ç., Şeker S. S.
 MECHANIKA, vol.23, no.4, pp.588-593, 2017 (SCI-Expanded)
- XXII. The determination of short circuits and grounding faults in electric power systems using time frequency analysis**
 ESEN V., ORAL B., Akıncı T. Ç.
 Journal of Energy in Southern Africa, vol.26, no.2, pp.123-132, 2015 (SCI-Expanded)
- XXIII. Determination of Wind Energy Potential in Kırklareli-Turkey**
 Ersoz S., Akıncı T. Ç., Nogay H. S., Dogan G.
 INTERNATIONAL JOURNAL OF GREEN ENERGY, vol.10, no.1, pp.103-116, 2013 (SCI-Expanded)
- XXIV. Application of artificial neural networks for short term wind speed forecasting in Mardin Turkey**
 NOĞAY H. S., Akıncı T. Ç., Eidukeviite M. E.
 Journal of Energy in Southern Africa, vol.23, no.4, 2012 (SCI-Expanded)
- XXV. Wind Speed Correlation Between Neighboring Measuring Stations**
 Akıncı T. Ç., Nogay H. S.
 ARABIAN JOURNAL FOR SCIENCE AND ENGINEERING, vol.37, no.4, pp.1007-1019, 2012 (SCI-Expanded)
- XXVI. Spectral and statistical analysis for ferroresonance phenomenon in electric power systems**
 Seker S., Akıncı T. Ç., Taskin S.
 ELECTRICAL ENGINEERING, vol.94, no.2, pp.117-124, 2012 (SCI-Expanded)

- XXVII. **Application of wavelet transform to defect detection of building's structure**
 Volkovas V., EIDUKEVICIUTE M., Nogay H. S., Akinci T. Ç.
 MECHANIKÀ, no.6, pp.683-690, 2012 (SCI-Expanded)
- XXVIII. **Short Term Wind Speed Forecasting with ANN in Batman Turkey**
 Akinci T. Ç.
 ELEKTRONIKA IR ELEKTROTECHNIKA, vol.1, no.107, pp.41-45, 2011 (SCI-Expanded)

Articles Published in Other Journals

- I. **Signal Processing Application Based on a Hybrid Wavelet Transform to Fault Detection and Identification in Power System**
 Nasser Mohamed Y., Şeker Ş. S., Akinci T. Ç.
 Information (Switzerland), vol.14, no.10, 2023 (ESCI)
- II. **Comparison of Automated Machine Learning (AutoML) Tools for Epileptic Seizure Detection Using Electroencephalograms (EEG)**
 Lenkala S., Marry R., Gopovaram S. R., Akinci T. Ç., Topsakal O.
 Computers, vol.12, no.10, 2023 (ESCI)
- III. **Determination of isolator damages in electric power transmission lines with continuous wavelet transform and multtape power spectrum density**
 Akinci T. Ç., Chung W.
 WORLD JOURNAL OF SCIENCE TECHNOLOGY AND SUSTAINABLE DEVELOPMENT, vol.18, no.4, pp.393-404, 2021 (ESCI)
- IV. **Comparative Experimental Investigation and Application of Five Classic Pre-Trained Deep Convolutional Neural Networks via Transfer Learning for Diagnosis of Breast Cancer**
 NOĞAY H. S., AKINCI T. Ç., YILMAZ M.
 ADVANCES IN SCIENCE AND TECHNOLOGY-RESEARCH JOURNAL, vol.15, no.3, pp.1-8, 2021 (ESCI)
- V. **Short-term wind speed forecasting system using deep learning for wind turbine applications**
 Erdemir G., Zengin A. T., Akinci T. Ç.
 International Journal of Electrical and Computer Engineering, vol.10, no.6, pp.5779-5784, 2020 (Scopus)
- VI. **Accuracy of Eight Probability Distribution Functions for Modeling Wind Speed Data in Djibouti**
 Idriss A. I., Mohamed A. A., Akinci T. Ç., Ahmed R. A., Omar A. I., Çağlar R., Seker S.
 INTERNATIONAL JOURNAL OF RENEWABLE ENERGY RESEARCH, vol.10, no.2, pp.780-790, 2020 (ESCI)
- VII. **Noise identification based on spectral analysis and noisy transfer function approach for fuel cells**
 Akinci T. Ç., Seker S., DURSUN E., KILIÇ O.
 NOISE MAPPING, vol.7, no.1, pp.14-20, 2020 (ESCI)
- VIII. **Bosnia and herzegovina's renewable energy policy and perspective**
 Tokic A., Akinci T. Ç., Zengin A. T.
 International Journal of Energy Economics and Policy, vol.10, no.5, pp.524-530, 2020 (Scopus)
- IX. **ROSETLineBot: One-Wheel-Drive Low-Cost Power Line Inspection Robot Design and Control**
 ZENGİN A. T., ERDEMİR G., AKINCI T. Ç., SELÇUK F. A., ERDURAN M. N., ŞEKER Ş. S.
 JOURNAL OF ELECTRICAL SYSTEMS, vol.15, no.4, pp.626-634, 2019 (ESCI)
- X. **Suitability and Evaluating Wind Speed Probability Distribution Models in a Hot Climate: Djibouti Case Study**
 Idriss A. I., Ahmed R. A., Said R. K., Omar A. I., Barutçu B., Mohamed A. A., Akinci T. Ç.
 INTERNATIONAL JOURNAL OF RENEWABLE ENERGY RESEARCH, vol.9, no.3, pp.1586-1596, 2019 (ESCI)
- XI. **APPLICATION OF DECISION TREE METHODS FOR WIND SPEED ESTIMATION**
 NOĞAY H. S., AKINCI T. Ç.
 European Journal of Technic, vol.9, no.1, pp.74-83, 2019 (Peer-Reviewed Journal)
- XII. **International Journal of Renewable Energy Research**
 Ibrahim Idris A., Ali Ahmed R., Kassim Said R., Idriss Oma A., BARUTÇU B., Awalo Mohamed A., AKINCI T. Ç.

- INTERNATIONAL JOURNAL OF RENEWABLE ENERGY RESEARCH, vol.9, no.3, pp.1586-1596, 2019 (Scopus)
- XIII. A CONVOLUTIONAL NEURAL NETWORK APPLICATION FOR THE CLASSIFICATION OF LUNG CANCER TYPES
NOĞAY H. S., AKINCI T. Ç., ERDEMİR G.
Industrial Technologies, vol.5, no.1, pp.7-12, 2018 (Peer-Reviewed Journal)
- XIV. ESTIMATION OF HEAD NECK CANCER STAGE BY USING DEEP CONVOLUTIONAL NEURAL NETWORKS
NOĞAY H. S., AKINCI T. Ç., ERDEMİR G.
Industrial Technologies, vol.5, no.1, pp.13-19, 2018 (Peer-Reviewed Journal)
- XV. CALCULATION OF DIELECTRIC DISSIPATION FACTOR AT VARIABLE FREQUENCIES OF MODEL TRANSFORMER
KAYA O., AKINCI T. Ç., ÖNAL Ş. E.
JOURNAL OF THE TECHNICAL UNIVERSITY - SOFIA PLOVDIV BRANCH, BULGARIA FUNDAMENTAL SCIENCES AND APPLICATIONS, vol.24, no.1, pp.55-59, 2018 (Peer-Reviewed Journal)
- XVI. A Convolutional Neural Network Application for Predicting the Locating of Squamous Cell Carcinoma in the Lung
NOĞAY H. S., AKINCI T. Ç.
Balkan Journal of Electrical and Computer Engineering, vol.6, no.3, pp.207-210, 2018 (Peer-Reviewed Journal)
- XVII. Bispectrum and Energy Analysis of Wind Speed Data
AKINCI T. Ç., ŞEKER Ş. S., Dikun J., AKGÜN Ö., ERDEMİR G.
International Journal of Electrical Energy, vol.5, no.1, pp.87-91, 2017 (Peer-Reviewed Journal)
- XVIII. Bispectrum and Energy Analysis of Wind Speed Data
AKINCI T. Ç., ŞEKER Ş. S., AKGÜN Ö., Dikun J., ERDEMİR G.
International Journal of Electrical Energy, vol.5, no.1, pp.87-91, 2017 (Peer-Reviewed Journal)
- XIX. Artificial Neural Network Based Solution of Inverse and Forward Kinematics of Six - Axis Robotic Arm
NOĞAY H. S., AKINCI T. Ç., ŞEKER Ş. S.
Industrial Technologies, vol.14, no.1, pp.7-12, 2017 (Peer-Reviewed Journal)
- XX. Laboratory ferroresonance measurements in power transformers
Pejic M., Tokic A., Kasumovic M., Akinci T. Ç.
ELEKTROTEHNIKI VESTNIK-ELECTROCHEMICAL REVIEW, vol.84, no.4, pp.195-199, 2017 (ESCI)
- XXI. Analysis of Sounds Generated from Welding Machine while in Idle and Operational Mode by Acoustic GÜNAYDİN L., AKINCI T. Ç., KOÇYİĞİT G., GÖKMEN G., AKGÜN Ö.
Applied Researches in Technics Technologies and Education - Journal of the Technics Technologies and Education Faculty of and Technologies, Trakia University, vol.3, no.3, pp.214-223, 2015 (Peer-Reviewed Journal)

Books & Book Chapters

- I. Nature-Inspired Approach Using Seasonal Comparison of Wind Speed With Spectral and Statistical Analysis
Akinci T. Ç., Çağlar R., Erdemir G., Zengin A. T., Şeker Ş. S.
in: Applications of Nature-Inspired Computing in Renewable Energy Systems, Mellal Mohamed Arezki, Editor, IGI Global, Bumardas, pp.10-20, 2021

Refereed Congress / Symposium Publications in Proceedings

- I. Beyin Dalgası Sensörü Kontrolü ile Akıllı Ev Otomasyonu
Özen A., AKINCI T. Ç., TÜRKPENÇE D., ÇAĞLAR R., ŞEKER Ş. S.
EEMKON 2019, ELEKTRİK ELEKTRONİK MÜHENDİSLİĞİ KONGRESİ, Turkey, 14 - 16 November 2019, pp.204-208
- II. Evolution of entanglement in quantum neural network

- Korkmaz U., TÜRKPENÇE D., AKINCI T. Ç., ŞEKER Ş. S.
IOP Conference Series: Materials Science and Engineering, 16 - 18 May 2019, vol.618, pp.12006
- III. A VIEW TO COGNITIVE ENGINEERING**
AKINCI T. Ç.
International Conference on Technics, Technologies and Education ICTTE 2019, 16 - 18 October 2019
- IV. QUANTUM NEURAL NETWORKS DRIVEN BY INFORMATION RESERVOIR**
TÜRKPENÇE D., Korkmaz U., ÇAĞLAR R., AKINCI T. Ç., ŞEKER Ş. S.
The International Conference On New Approaches In Special Needs, 26 - 28 April 2019, pp.224-231
- V. Analysis of wind effect on a PID controlled quadcopter for trajectory tracking task**
ERDEMİR G., AKINCI T. Ç., ZENGİN A. T., ŞEKER Ş. S.
OSTIV 2018 Meteorological Panel, Bremen, Germany, 2 - 03 February 2018
- VI. Time-Frequency Methods for Signal Analysis in Seasonal Wind Speed Data**
AKINCI T. Ç., ERDEMİR G., Salinus A., ŞEKER Ş. S.
OSTIV 2018 Meteorological Panel, Bremen, Germany, 2 - 03 February 2018
- VII. Steady coherence in quantum neural networks**
TÜRKPENÇE D., AKINCI T. Ç., ŞEKER Ş. S.
4th International Conference on pure and Applied Sciences: Renewable energies, 23 - 25 November 2017
- VIII. Artificial Neural Network Based Solution Of Inverse And Forward Kinematics Of Six-axis Robotic Arm**
NOĞAY H. S., AKINCI T. Ç., ŞEKER Ş. S.
University Burgas, International Conference Education, Science, Economics And Technologies, 22 - 23 June 2017
- IX. SEASONAL COMPARISONS FOR SPECTRAL ANALYSIS AND STATISTICAL DISTRIBUTIONS OF ANNUAL WIND DAT**
ÇAĞLAR R., ŞEKER Ş. S., Dikun J., AKINCI T. Ç., ÖNAL Ş. E., AYAZ E.
XXXIII OSTIV Congress, Benalla, Australia, 8 - 13 January 2017
- X. Analysis of Light Levels in a Class in a day Using Wavelet Method International Conference on Engineering**
AKINCI T. Ç., SEVER Ü., GÜNEYDİN L., AYAZ E., ŞEKER Ş. S.
International Conference on Engineering, Technologies and Systems-TECHSYS 2015, 29 April - 31 May 2015
- XI. Detection of the Deformations in Ceramic Plates with Coherence Analysis and Transfer Function Model**
AKINCI T. Ç., AYAZ E., ŞEKER Ş. S.
20th International Scientific Conference Mechanika, 23 - 24 April 2015
- XII. SPECTRAL ANALYSIS FOR SIGNALS BASED ON FERRORESONANCE PHENOMENA IN ELECTRIC POWER SYSTEM**
AKINCI T. Ç., ŞEKER Ş. S., EKREN N.
International Conference Engineering, Technologies and SystemsTechSys 'xx2009, 29 - 30 May 2009

Supported Projects

- Akinci T. Ç., Project Supported by Higher Education Institutions, Bispectrum and energy analysis of wind speed data, 2016 - 2018
- Akinci T. Ç., Project Supported by Higher Education Institutions, Durum İzleme, Arıza Tespit Analizi ve İşaret İşleme Yöntemlerinde Yeni Yaklaşımalar, 2016 - 2018

Activities in Scientific Journals

- The Journal of Cognitive Systems, Committee Member, 2016 - Continues
Journal of Electrical Systems, Committee Member, 2016 - Continues

Energy, Special Issue Editor, 2019 - 2020

Balkan Journal of Electrical and Computer Engineering, Special Issue Editor, 2019 - 2020

Metrics

Publication: 96

Citation (WoS): 99

Citation (Scopus): 254

H-Index (WoS): 6

H-Index (Scopus): 10

Congress and Symposium Activities

Intern Conf Education Scie. Tech, Attendee, Burgas, Bulgaria, 2017

TechSys 2017, Attendee, Plovdiv, Bulgaria, 2017

OSITV CONGRESS, Attendee, Australia, 2017

ICCEE 2016, Attendee, Barcelona, Spain, 2016

ICTTE 2016, Attendee, Jambol, Bulgaria, 2016

RE & IT 2016, Attendee, Smoljan, Bulgaria, 2016