

## Dr.Öğr.Üyesi Kamil Karaçuha

### Kişisel Bilgiler

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### Uluslararası Araştırmacı ID'leri

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Publons / Web Of Science ResearcherID: ABC-8066-2020

ScopusID: 57202857584

Yoksis Araştırmacı ID: 278937

### Eğitim Bilgileri

Lisans, Anadolu Üniversitesi, Açıköğretim Fakültesi, Sosyoloji Bölümü, Türkiye 2017 - 2021

Bütünleşik Doktora, İstanbul Teknik Üniversitesi, Bilişim Enstitüsü, Türkiye 2017 - 2021

Lisans, Orta Doğu Teknik Üniversitesi, Fen Edebiyat Fakültesi, Fizik Bölümü, Türkiye 2014 - 2018

Lisans, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Elektrik Elektronik Mühendisliği, Türkiye 2012 - 2017

### Araştırma Alanları

Elektrik-Elektronik Mühendisliği, Elektromanyetik, Elektriksel ve Manyetik Alanlar , Mühendislik ve Teknoloji

### Akademik Unvanlar / Görevler

Dr.Öğr.Üyesi, İstanbul Teknik Üniversitesi, Elektrik-Elektronik, Elektrik Mühendisliği, 2021 - Devam Ediyor  
Araştırma Görevlisi, İstanbul Teknik Üniversitesi, Bilişim Enstitüsü, Bilişim Uygulamaları, 2018 - Devam Ediyor

### SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- I. A fundamental approach: E-polarized electromagnetic wave diffraction by two dimensional arbitrary-shaped objects with impedance boundary condition  
Tabatadze V., Karaçuha K., Zaridze R., Veliyev E., Karaçuha E.  
Journal of Electrical Engineering, cilt.73, sa.6, ss.426-431, 2022 (SCI-Expanded)
- II. H-polarized plane wave diffraction by a slotted cylinder with different surface impedances: Solution by the analytical-Numerical approach  
Tabatadze V., Karaçuha K., Alperen Ö. F., Veliyev E.  
IET MICROWAVES ANTENNAS & PROPAGATION, cilt.16, sa.14, ss.869-879, 2022 (SCI-Expanded)
- III. A new approach in electromagnetic plane wave diffraction by two concentric slotted cylinders with variably placed slits: E and H polarized cases  
Karaçuha K., Tabatadze V., Alperen O. F., Veliyev E.  
IET MICROWAVES ANTENNAS & PROPAGATION, cilt.16, sa.7, ss.437-450, 2022 (SCI-Expanded)
- IV. Electromagnetic plane wave diffraction by a cylindrical arc with edges: H-polarized case

- Karaçuha K., Tabatadze V., Veliyev E.  
 INTERNATIONAL JOURNAL OF APPLIED ELECTROMAGNETICS AND MECHANICS, cilt.68, sa.1, ss.13-27, 2022 (SCI-Expanded)
- V. General approach to the line source electromagnetic scattering by a circular strip: Both E- and H-polarisation cases  
 Karaçuha K.  
 IET Microwaves, Antennas and Propagation, cilt.15, ss.1721-1734, 2021 (SCI-Expanded)
- VI. Several case studies on electric field distributions for two human bodies inside the car at 3.5 GHz-5G frequency band  
 Akdogan H., Tabatadze V., Karaçuha K., Yaldiz E.  
 INTERNATIONAL JOURNAL OF APPLIED ELECTROMAGNETICS AND MECHANICS, cilt.67, sa.4, ss.507-520, 2021 (SCI-Expanded)
- VII. Line source diffraction by double strips with different fractional boundary conditions  
 Karaçuha K., Tabatadze V., Veliyev E.  
 INTERNATIONAL JOURNAL OF APPLIED ELECTROMAGNETICS AND MECHANICS, cilt.67, sa.2, ss.165-181, 2021 (SCI-Expanded)
- VIII. Analyzing Response Efficiency to COVID-19 and Underlying Factors of the Outbreak With Deep Assessment Methodology and Fractional Calculus  
 Karaçuha E., Ergün E., Önal Tuğrul N. Ö., Karaçuha K., Tabatadze V.  
 IEEE ACCESS, cilt.9, ss.157812-157824, 2021 (SCI-Expanded)
- IX. The solution of the plane wave diffraction problem by two strips with different fractional boundary conditions  
 Tabatadze V., Karaçuha K., Veliyev E.  
 JOURNAL OF ELECTROMAGNETIC WAVES AND APPLICATIONS, cilt.34, sa.7, ss.881-893, 2020 (SCI-Expanded)
- X. The Electric Field Calculation for Mobile Communication Coverage in Buildings and Indoor Areas by Using the Method of Auxiliary Sources  
 Tabatadze V., Karaçuha K., Veliyev E., Karaçuha K., Zaridze R.  
 COMPLEXITY, cilt.2020, 2020 (SCI-Expanded)
- XI. Plane wave diffraction by strip with an integral boundary condition  
 Karaçuha K., Tabatadze V., Veliev E. I.  
 TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, cilt.28, sa.3, ss.1776-1790, 2020 (SCI-Expanded)
- XII. Modeling and Prediction of the Covid-19 Cases With Deep Assessment Methodology and Fractional Calculus  
 Karaçuha E., Onal N. Ö., Ergün E., Tabatadze V., Alkas H., Karaçuha K., Tontuş H. Ö., Nu N. V. N.  
 IEEE ACCESS, cilt.8, ss.164012-164034, 2020 (SCI-Expanded)
- XIII. A Mathematical Approach with Fractional Calculus for the Modelling of Children's Physical Development  
 Önal N. Ö., Karaçuha K., Erdinç G. H., Karacuha B. B., Karaçuha E.  
 COMPUTATIONAL AND MATHEMATICAL METHODS IN MEDICINE, cilt.2019, 2019 (SCI-Expanded)

## **Düzen Dergilerde Yayınlanan Makaleler**

- I. Electromagnetic Diffraction by a Slotted Cylinder with the Fractional Boundary Condition  
 Karaçuha K., Tabatadze V., Alperen Ö. F., Karaçuha E., Veliyev E.  
 Progress In Electromagnetics Research C, cilt.128, ss.61-71, 2023 (Scopus)
- II. Mathematical Modeling of European Countries' Telecommunication Investments Avrupa Ülkelerinin Haberleşme Sektöründeki Yatırımlarının Matematiksel Modelleme  
 Karaçuha K., Sağlamol S. A., Ergün E., Önal Tuğrul N. Ö., Şimşek K., Karaçuha E.  
 El-Cezeri Journal of Science and Engineering, cilt.9, sa.3, ss.1028-1037, 2022 (Scopus)

- III. MODELING OF MOBILE AND FIXED BROADBAND SUBSCRIPTIONS OF COUNTRIES WITH FRACTIONAL CALCULUS**  
 Önal Tuğrul N. Ö., Baser C., Ergün E., Karaçuha K., Tabatadze V., Eker S., Karaçuha E., Simsek K.  
 TRANSPORT AND TELECOMMUNICATION JOURNAL, cilt.23, sa.1, ss.1-10, 2022 (ESCI)
- IV. A Simple Approach to Characterize a Buried Object under the Ground**  
 Tabatadze V., Karaçuha K., Alperen Ö. F., Joof S., Zaridze R.  
 PROGRESS IN ELECTROMAGNETICS RESEARCH M, cilt.109, ss.89-100, 2022 (ESCI)
- V. Electromagnetic Scattering from 2-D Conducting Objects of Arbitrary Smooth Shape: Complete Mathematical Formulation of the Method of Auxiliary Sources for E-Polarized Case**  
 Tabatadze V., Karaçuha K., Zaridze R.  
 Progress In Electromagnetics Research M, cilt.114, ss.117-125, 2022 (ESCI)
- VI. Diffraction of the electromagnetic plane waves by double half-plane with fractional boundary conditions**  
 Tabatadze V., Karaçuha K., Veliyev E., Karaçuha E.  
 Progress In Electromagnetics Research M, cilt.101, ss.207-218, 2021 (ESCI)
- VII. The Diffraction by the Half-Plane with the Fractional Boundary Condition**  
 Veliyev E., Tabatadze V., Karaçuha K., Karaçuha E.  
 PROGRESS IN ELECTROMAGNETICS RESEARCH M, cilt.88, ss.101-110, 2020 (ESCI)
- VIII. Body Shape and Complex Permittivity Determination Using the Method of Auxiliary Sources**  
 Tabatadze V., Karaçuha K., Karaçuha E.  
 PROGRESS IN ELECTROMAGNETICS RESEARCH M, cilt.87, ss.115-125, 2019 (ESCI)
- IX. The fractional derivative approach for diffraction problems: Plane wave diffraction by two strips with fractional boundary conditions**  
 Tabatadze V., Karaçuha K., Veliyev E.  
 Progress In Electromagnetics Research C, cilt.95, ss.251-264, 2019 (Scopus)
- X. Analysis of Current Distributions and Radar Cross Sections of Line Source Scattering from Impedance Strip by Fractional Derivative Method**  
 Karaçuha K., Veliyev E., Tabatadze V., Karaçuha E.  
 ADVANCED ELECTROMAGNETICS, cilt.8, sa.2, ss.108-113, 2019 (ESCI)
- XI. The Use of the Fractional Derivatives Approach to Solve the Problem of Diffraction of a Cylindrical Wave on an Impedance Strip**  
 Veliyev E., Karaçuha K., Karaçuha E., Dur O.  
 PROGRESS IN ELECTROMAGNETICS RESEARCH LETTERS, cilt.77, ss.19-25, 2018 (ESCI)

### Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- I. A Filtering Dipole Antenna Design with Bandwidth Enhancement for 5G**  
 Çelik F. T., Joof S., Karaçuha K.  
 17th European Conference on Antennas and Propagation, EuCAP 2023, Florence, İtalya, 26 - 31 Mart 2023
- II. A Wideband Dipole Antenna Design for Through-the-Wall Imaging on Security Applications**  
 Joof S., Doğu S., Çelik F. T., Karaçuha K.  
 17th European Conference on Antennas and Propagation, EuCAP 2023, Florence, İtalya, 26 - 31 Mart 2023
- III. Modelling on economic growth and telecommunication sector of Turkey using a fractional approach including error minimizing**  
 Önal N. Ö., Karaçuha K., Karaçuha E.  
 2021 Asia-Pacific Conference on Applied Mathematics and Statistics, AMS 2021, Chiangmai, Virtual, Tayland, 20 - 22 Şubat 2021, cilt.2471
- IV. A Dual-Band Quasi-Yagi Reconfigurable Binomial Weighted Phased Antenna Array Design**  
 Karaçuha K., Celik F. T.  
 2nd IEEE Ukrainian Microwave Week, UkrMW 2022, Kharkiv, Ukrayna, 14 - 18 Kasım 2022, ss.351-354

- V. **Electromagnetic Scattering by the Strip with Different Impedances on Both Sides**  
Tabatadze V., Karaçuha K., Karaçuha E., Veliev E.  
2nd IEEE Ukrainian Microwave Week, UkrMW 2022, Kharkiv, Ukrayna, 14 - 18 Kasım 2022, ss.482-485
- VI. **A Gain Enhancement Study on a Vivaldi Antenna for Radar Applications**  
Yıldız E. M., Dede C. F. G., Karaçuha K., Eker S.  
2022 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, AP-S/URSI 2022, Colorado, Amerika Birleşik Devletleri, 10 - 15 Temmuz 2022, ss.1218-1219
- VII. **Four Beam Patch Antenna**  
Barbakadze V., Karaçuha K., Tabatadze V., Zaridze R.  
2nd IEEE Ukrainian Microwave Week, UkrMW 2022, Kharkiv, Ukrayna, 14 - 18 Kasım 2022, ss.600-603
- VIII. **Electromagnetic Diffraction by a Pulse from 2-D Dielectric Objects**  
Tabatadze V., Karaçuha K., Zaridze R.  
2nd IEEE Ukrainian Microwave Week, UkrMW 2022, Kharkiv, Ukrayna, 14 - 18 Kasım 2022, ss.559-562
- IX. **A Simple Approach to Determine the Buried Object under the Ground**  
KARAÇUHA K., TABATADZE V., KARAÇUHA E., Zaridze R.  
2021 IEEE 26th International Seminar/Workshop on Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory (DIPED), Gürcistan, 8 - 10 Eylül 2021
- X. **A Reconfigurable Binomial Weighted Phased Array Antenna Design for Wi-Fi Band Wi-Fi Bandı icin Yeniden Yapılandırılabilir Binom Ağırlıklı Fazlı Dizi Anten Tasarımı**  
ÇELİK F. T., Karaçuha K.  
28th Signal Processing and Communications Applications Conference, SIU 2020, Gaziantep, Türkiye, 5 - 07 Ekim 2020
- XI. **The Diffraction by the Half-plane with the Fractional Boundary Condition**  
Tabatadze V., Veliyev E., Karaçuha E., Karaçuha K.  
2020 International Applied Computational Electromagnetics Society Symposium, ACES-Monterey 2020, California, Amerika Birleşik Devletleri, 27 - 31 Temmuz 2020
- XII. **A Two-Element Array Design of Dual-Band Quasi-Yagi Antenna with Reflector**  
Gul F. C., Karaçuha K., Eker S.  
IEEE International Symposium on Antennas and Propagation / North American Radio Science Meeting, ELECTR NETWORK, 5 - 10 Temmuz 2020, ss.1915-1916
- XIII. **A Reconfigurable Binomial Weighted Phased. Array Antenna Design for Wi-Fi Band**  
ÇELİK F. T., Karaçuha K.  
28th Signal Processing and Communications Applications Conference (SIU), ELECTR NETWORK, 5 - 07 Ekim 2020
- XIV. **Broadband RF communication system design for smart houses including Wi-Fi and 5G**  
ÇELİK F. T., Karaçuha K.  
2019 Photonics and Electromagnetics Research Symposium - Fall, PIERS - Fall 2019, Xiamen, Çin, 17 - 20 Aralık 2019, ss.1558-1562
- XV. **Dual band quasi-yagi antenna array structure for the side loop reduction by using binomial weighting**  
Karaçuha K., ÇELİK F. T.  
2019 Photonics and Electromagnetics Research Symposium - Fall, PIERS - Fall 2019, Xiamen, Çin, 17 - 20 Aralık 2019, ss.1567-1570
- XVI. **Dual-band Quasi-Yagi Antenna Gain Enhancement by Using a Reflector Plate**  
Gul F. C., Karaçuha K., Eker S.  
PhotonIcs and Electromagnetics Research Symposium - Spring (PIERS-Spring), Rome, İtalya, 17 - 20 Haziran 2019, ss.3594-3600
- XVII. **Application of The Method of Fractional Derivatives to the Solution of the Problem of Plane Wave Diffraction by Two Axisymmetric Strips of Different Sizes**  
Karaçuha K., Veliyev E., Tabatadze V., Karaçuha E.  
URSI International Symposium on Electromagnetic Theory (EMTS), California, Amerika Birleşik Devletleri, 27 - 31 Mayıs 2019

- XVIII. **Miniaturized Virtual Array Dual Band Loop Quasi - Yagi Antenna Design for 5G Application**  
ÇELİK F. T., Karaçuha K.  
URSI International Symposium on Electromagnetic Theory (EMTS), California, Amerika Birleşik Devletleri, 27 - 31 Mayıs 2019
- XIX. **Scattering of a Cylindrical Wave from an Impedance Strip by Using the Method of Fractional Derivatives**  
Veliev E., Karaçuha K., Karaçuha E.  
23rd International Seminar/Workshop on Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory (DIPED), Tbilisi, Gürcistan, 24 - 27 Eylül 2018, ss.72-75
- XX. **Dual - Band Microtrip Quasi - Yagi Antenna Design for Free Band and 5G Mobile Communication**  
Celik F. T., Karacuha K.  
23rd International Seminar/Workshop on Direct and Inverse Problems of Electromagnetic and Acoustic Wave Theory (DIPED), Tbilisi, Gürcistan, 24 - 27 Eylül 2018, ss.189-192

## Desteklenen Projeler

Karaçuha E., Karaçuha K., Ergün E., Tabatadze V., Önal Tuğrul N. Ö., Yükseköğretim Kurumları Destekli Proje, Derin Değerlendirme ve Yapay Zeka ile G8 Ülkeleri ve Türkiye'nin Ekonomik Faktörlerinin Modellenmesi, Etki Analizi ve Öngörülmesi, 2021 - 2024

Karaçuha K., ALTUNSU B., TÜRK B., KARATAŞ E., Önal Tuğrul N. Ö., Yükseköğretim Kurumları Destekli Proje, Atış Kararını Kendi Veren Otonom Kara Aracı, 2022 - 2023

Karaçuha K., Yükseköğretim Kurumları Destekli Proje, 5G için Geniş Bandlı Filtreleme Özelliğine Sahip Anten Tasarımı Denemesi, 2022 - 2023

Karaçuha E., Akıncı M. N., Karaçuha K., Yelten M. B., Temeltaş H., Acar M. H., GÖSE E., ŞAHİNTÜRK H., Şeker Ş. S., Yılmaz Abdolsaheb T., TÜBİTAK Projesi, SAVA120, 2020 - 2022

## Metrikler

Yayın: 55  
Atıf (WoS): 19  
Atıf (Scopus): 138  
H-İndeks (WoS): 3  
H-İndeks (Scopus): 8