Prof. ALİ KARA

Personal Information

Office Phone: <u>+90 312 582 3347</u>
Fax Phone: <u>+90 312 230 8434</u>

Email: akara@gazi.edu.tr

Web: https://avesis.gazi.edu.tr/akara

Address: Gazi Üniversitesi Mühendislik Fakültesi Elektrik-Elektronik Mühendisliği Bölümü

Eti Mh. Yükseliş Sk. No: 5 Kat: 3 06570 Maltepe/ANKARA

International Researcher IDs

ScholarID: yVB187cAAAAJ ORCID: 0000-0002-9739-7619

Publons / Web Of Science ResearcherID: R-8038-2019

Yoksis Researcher ID: 104039



Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Elektrik Elektronik Mühendisliği A.B.D., Turkey 1996 - 2002

Doctorate, Polytechnic University, Brooklyn Campus, Tandon School of Engineering, Electrical and Computer Engineering, United States Of America 1999 - 2000

Postgraduate, Cukurova University, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Mühendisliği,

Turkey 1993 - 1996

Undergraduate, Erciyes University, Mühendislik Fakültesi, Turkey 1988 - 1992

Biography

Ali Kara received his Ph.D. in Electrical and Electronics Engineering from Hacettepe University, Ankara, in 2002. He was a research assistant/scholar at Polytechnic University (New York University, Brooklyn, NY) from 1999 to 2000, in an industry-sponsored project (Symbol Technologies/Motorola).

In 2000, he joined the Department of Electrical and Electronics Engineering at Atılım University, where he held various positions from lecturer to full professor. He was the Director of the Graduate School of Natural and Applied Sciences at Atılım University until 2021.

He was also a consultant and chief researcher (part-time) at TUBITAK BILGEM from 2006 to 2012, where he contributed to some nationwide defense and security projects. He has been actively involved in many state and industry-funded projects since then.

Dr. Kara has published extensively in journals, mostly with his graduate students, and has presented his research findings at relevant conferences. He has also led many research projects in the areas of electromagnetics, wireless communications, radar and electronic warfare systems, and engineering education.

In one project, he led a team of researchers from universities across Europe to develop a Virtual and Remote Laboratory (VRL) platform (ERRL-European Remote Radio Laboratory). This platform was unique at the time and was fully funded by the European Commission. Dr. Kara has five patents to his name.



His research interests lie in a broad range of areas, including wireless communications, electromagnetics, radar and electronic warfare, data-driven techniques in engineering, and engineering education. In recent years, he has focused on the use of artificial intelligence (ML/DL) to solve problems in these areas.

See Ali Kara's Google profile for research publications.

See Ali Kara's Youtube Channel for some of the course recordings.

Foreign Languages

English, C1 Advanced

Dissertations

Doctorate, Theoretical and experimental investigation of radio propagation for urban and indoor wireless communication systems at UHF band, Hacettepe University, Fen Bilimleri Enstitüsü, 2002 Postgraduate, Scattering of plane waves by corrugated surfaces, Cukurova University, 1996

Research Areas

Communication Networks, Wireless Communication, Radar Theory, Radionavigation and Direction Finding,
Telecommunication Applications, Sattelite Communication, Signal Processing for Communication, Pattern Recognition
and Analysis, Signal Processing Theory and Methods, Hardware Security, Communications and Network Protocols,
Artificial Intelligence, Computer Learning and Pattern Recognition, Microwave Circuits, Wave Propagation and Remote
Sensing, Electromagnetic Waves, Antennas and Propagation

Academic Titles / Tasks

Professor, Gazi University, Mühendislik Fakültesi, Elektrik - Elektronik Mühendisliği, 2021 - Continues
Professor, Atilim University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering, 2015 - 2021
Associate Professor, Atilim University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering,
2010 - 2015

Assistant Professor, Atilim University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering, 2003 - 2010

Lecturer, Atilim University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering, 2000 - 2002 Research Assistant, Polytechnic University, Brooklyn Campus, Electrical and Computer Engineering, 1999 - 2000 Research Assistant, Kütahya Dumlupinar University, Engineering Faculty, Electrical and Electronic Engineering, 1996 - 1998

Research Assistant, Cukurova University, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Mühendisliği, 1993 - 1996

Academic and Administrative Experience

Director of The Institution, Atilim University, Institute Of Science, 2017 - 2021

Head of Department, Atilim University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering,

Courses

Electronic Signal Intelligence (ELINT), Doctorate, 2022 - 2023

Radar Signals and Systems, Postgraduate, 2022 - 2023

Introduction to Radar Systems, Postgraduate, 2022 - 2023

Engineering Design II, Undergraduate, 2021 - 2022

Project Management, Undergraduate, 2021 - 2022

Electronic Warfare Systems, Postgraduate, 2022 - 2023

Engineering Design I, Undergraduate, 2021 - 2022

Digital Signal Processing, Undergraduate, 2021 - 2022

Radar Systems, Undergraduate, 2020 - 2021

Communication Systems, Undergraduate, 2019 - 2020

Wireless Communications, Undergraduate, 2018 - 2019

Applications of Communications and Signal Processing, Postgraduate, 2016 - 2017

Electronic Warfare Systems, Postgraduate, 2015 - 2016

Radar Signal Processing, Postgraduate, 2013 - 2014

Electronic Warfare, Postgraduate, 2011 - 2012

Advising Theses

Kara A., MODELLING AND DESIGN OF PRE-EQUALIZATION IN VISIBLE LIGHT COMMUNICATION, Postgraduate, M.BOSTANOĞLU(Student), 2023

Kara A., Yazılım Tanımlı Radyo ile bir Frekans Modülasyonlu Sürekli Dalga Radar Uygulaması, Postgraduate, C.ŞAHİN(Student), 2023

Kara A., Dalveren Y., A study on microstrip antenna design for 77 GHz radar systems, Postgraduate, S.YILMAZ(Student), 2023

Kara A., Zencir E., Design and development of application-specific RF proximity sensor, Doctorate, B.UD(Student), 2022 Kara A., Aydin E., Radar cross section measurement of various objects with 77-81 GHz automotive radar and assessment of radar cross section simulation tools, Postgraduate, D.SEZGİN(Student), 2022

Kara A., Aydin E., Optimal exclusion zone estimation for co-existence of geostationary and non-geostationary satellite networks, Doctorate, F.ÖZTÜRK(Student), 2022

Kara A., Wi-Fi sinyalleri kullanılarak kablosuz cihazların derin öğrenme yöntemleri ile kimliklendirilmesine yönelik bir çalışma, Postgraduate, M.SEFA(Student), 2022

Kara A., Dalveren Y., Deep learning-based vehicle classification under low-quality imagining conditions, Postgraduate, Ö.SARI(Student), 2022

Kara A., DESIGN AND DEMONSTRATION OF LOW COST MODULAR FMCW RADAR FOR EDUCATIONAL PURPOSES, Postgraduate, I.OVAIS(Student), 2021

Kara A., A Study On Performance Analysis Of Space Time Block Coding In Multiple Input Multiple Output Wireless Communication Systems, Postgraduate, K.DAW(Student), 2021

Dalveren Y., Kara A., Use of wavelet decomposition in radio frequency fingerprinting of bluetooth signals, Postgraduate, H.AL(Student), 2021

Kara A., Modeling and Measurement of Received Signal Variability over Populated Links in Indoor Channels at mmWaves, Postgraduate, M.MOSTAFA(Student), 2021

Kara A., DEVELOPMENT AND PERFORMANCE ASSESSMENT OF SIGNAL DETECTION METHODS FOR TRANSIENT SIGNAL STARTS, Doctorate, I.SALEM(Student), 2021

Lotfi B., Kara A., Modelling and optimization of harness design and cost analysis using software tools, Postgraduate, M.KEMAL(Student), 2021

Kara A., Development of piezoelectric powered ultraviolet portable water cleaning system, Postgraduate, D.ERDEM(Student), 2020

Kara A., Analysis of scattering centers over irregular terrain in emitter localization, Postgraduate, B.MAIGA(Student), 2020

Kara A., Aydın E., An Experimental Study on Near Ground Radio Propagation at 900 MHZ, Postgraduate, B.BİLGİÇ(Student), 2020

Kara A., Modeling and Measurement Of Multiple Human Body Shadowing at 28 GHz, Postgraduate, G.KARATAŞ(Student), 2020

Kara A., Performance analysis of higher order statistical features in classification of some modulation types, Postgraduate, R.BÜŞRA(Student), 2020

Kara A., Performance analysis of hierarchical classification of modulation types, Postgraduate, B.YALÇINKAYA(Student), 2020

Kara A., A practical time synchronization algorithm for linear wireless sensor networks including link-layer protocol implementation, Postgraduate, M.ABDULLAH(Student), 2020

Kara A., Distributed Denial of Service (DDoS) Attack Mitigation in Network Functions Virtualization (NFV) based 5G Networks, Postgraduate, S.KÖKSAL(Student), 2020

Kara A., Modeling and characterization of human body shadowing at millimeter waves, Doctorate, A.H.A.(Student), 2020 Kara A., Variational mode decomposition based radio frequency fingerprinting of bluetooth devices, Doctorate, A.AGHANAIYA(Student), 2019

Aydın E., Kara A., Design and implementation of high gain microstrip antennasfor sub-GHZ bands, Postgraduate, G.BİLGİN(Student), 2019

Kara A., Aydın E., Design and fabrication of miniaturized microstrip antennas at 900 MHz for industrial remote controllers, Postgraduate, V.SU(Student), 2019

Kara A., Assessment of features and classifiers for Bluetooth RF fingerprinting, Doctorate, A.B.(Student), 2019 Özbek M. E., Kara A., Implementation of Matched Filter for Radar Receiver on FPGA, Postgraduate, M.SALEM(Student), 2018

Kara A., An experimental study on time synchronization in linear spanning tree wireless sensor network, Postgraduate, A.ERPAY(Student), 2018

Kara A., Design and implementation of modular front end for RF fingerprinting of bluetooth signals, Postgraduate, E.UZUNDURUKAN(Student), 2018

Aydın E., Kara A., Design of small dual band slot antenna, Postgraduate, M.BUBRAIG(Student), 2017

Kara A., Analysis and quantization of range error of modular FMCW radar at C band, Postgraduate, M.Y.(Student), 2017

Kara A., Use of multipaths in passive localization of emitters, Doctorate, Y.DALVEREN(Student), 2016

Kara A., Indoor radio propagation studies in industrial environments, Postgraduate, Ş.TÜTÜNCÜ(Student), 2016

Kara A., Spectral analysis of parabolic range gate pull-off signals in digital radio frequency memory, Postgraduate, M.TALHA(Student), 2015

Kara A., Optimization of satellite transponder utilization based on simulation results, Postgraduate, O.ULUBEY(Student), 2015

At N., Kara A., New methods for radar emitter identification, Doctorate, K.GENÇOL(Student), 2015

Kara A., Signal and system level simulations on wideband intercept receivers, Postgraduate, İ.KARADEDE(Student), 2014

Kara A., Determination of scattering center of multipath signals using geometric optics and fresnel zone concepts,

Postgraduate, K.YAVUZ(Student), 2013

Kara A., Towards real time implementation of specific emitter identification on pulse waveforms: Optimizations on a low cost commercial platform, Postgraduate, C.ERDEM(Student), 2012

Kara A., A study on identification of radar emitters, Postgraduate, A.MUSTAFA(Student), 2011

Kara A., Localization of emitters over and around sea surfaces, Postgraduate, Y.DALVEREN(Student), 2011

Kara A., Performance benchmarking of cellular network operators in Turkey, Postgraduate, R.KADIOĞLU(Student), 2010

Kara A., Development of an improved algorithm for multiple diffractions in urban radio propagation, Postgraduate,

M.BARIŞ(Student), 2009

Kara A., Development of a wireless transmission module for Modbus applications, Postgraduate, O.TÜRKKAN(Student), 2008

Published journal articles indexed by SCI, SSCI, and AHCI

I. A Radio Frequency Fingerprinting-Based Aircraft Identification Method Using ADS-B Transmissions Gurer G., Dalveren Y., KARA A., Derawi M.

Aerospace, vol.11, no.3, 2024 (SCI-Expanded)

II. Towards mmWave Altimetry for UAS: Exploring the Potential of 77 GHz Automotive Radars

Awan M. A., Dalveren Y., KARA A., Derawi M.

Drones, vol.8, no.3, 2024 (SCI-Expanded)

III. Solid materials characterization using split ring resonators enclosed by power divider

Mohammadi P., Mohammadi A., KARA A.

MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, vol.66, no.2, 2024 (SCI-Expanded)

IV. A Differential and High-Sensitivity Thickness Measurement Sensor for Dielectric Solid Materials
Using a Branch Line Coupler

Mohammadi P., Mohammadi A., KARA A.

IEEE Sensors Journal, 2024 (SCI-Expanded)

V. Blockage loss and shadow fading behavior of millimeter-wave signals due to human bodies at 28 GHz

Benzaghta M., Gokdogan B. Y., Coruk R. B., KARA A.

Microwave and Optical Technology Letters, vol.66, no.1, 2024 (SCI-Expanded)

VI. Convolutional Neural Network-Based Vehicle Classification in Low-Quality Imaging Conditions for Internet of Things Devices

Maiga B., Dalveren Y., KARA A., Derawi M.

SUSTAINABILITY, no.23, 2023 (SCI-Expanded)

VII. Deployment and Implementation Aspects of Radio Frequency Fingerprinting in Cybersecurity of Smart Grids

Awan M. A., Dalveren Y., Catak F. O., Kara A.

ELECTRONICS, vol.12, no.24, 2023 (SCI-Expanded)

VIII. Dual Frequency Microwave Resonator for Non-invasive detection of Aqueous Glucose

Mohammadi P., Mohammadi A., KARA A.

IEEE Sensors Journal, vol.23, no.18, pp.21246-21253, 2023 (SCI-Expanded)

IX. A Hybrid-Flipped Classroom Approach: Students' Perception and Performance Assessment Un enfoque de aula invertida híbrida: evaluación de la opinión y el ren-dimiento de los estudiantes Gokdogan B. Y., Coruk R. B., Benzaghta M., Kara A.

Ingenieria e Investigacion, vol.43, no.3, 2023 (SCI-Expanded)

X. Modelling and Design of Pre-Equalizers for a Fully Operational Visible Light Communication System Bostanoglu M., Dalveren Y., Catak F. O., KARA A.

Sensors, vol.23, no.12, 2023 (SCI-Expanded)

XI. Investigating the Impact of Two Major Programming Environments on the Accuracy of Deep Learning-Based Glioma Detection from MRI Images

Yilmaz V. S., Akdag M., Dalveren Y., Doruk R. O., KARA A., Soylu A.

Diagnostics, vol.13, no.4, 2023 (SCI-Expanded)

XII. Modeling and measurement of human body blockage loss at 28 GHz

Benzaghta M., Gokdogan B. Y., Coruk R. B., Kara A.

Journal of Electromagnetic Waves and Applications, vol.37, no.4, pp.538-548, 2023 (SCI-Expanded)

XIII. Enhanced Half-Mode SIW Loaded With Interdigital Capacitor for Permittivity Measurements Mohammadi P., Mohammadi A., KARA A.

IEEE TRANSACTIONS ON INSTRUMENTATION AND MEASUREMENT, vol.72, 2023 (SCI-Expanded)

XIV. On the accuracy of an emitter localization method based on multipath exploitation in realistic scenarios

Al Imran M. A., Ank E., Dalveren Y., Tabakcioglu M. B., Kara A.

JOURNAL OF ELECTROMAGNETIC WAVES AND APPLICATIONS, vol.36, no.15, pp.2178-2197, 2022 (SCI-Expanded)

XV. On the Classification of Modulation Schemes Using Higher Order Statistics and Support Vector Machines

Coruk R. B., Gokdogan B. Y., Benzaghta M., KARA A.

WIRELESS PERSONAL COMMUNICATIONS, vol.126, no.2, pp.1363-1381, 2022 (SCI-Expanded)

XVI. Deep Learning-Based Vehicle Classification for Low Quality Images

Tas S., Sari O., Dalveren Y., Pazar S., KARA A., Derawi M.

SENSORS, vol.22, no.13, 2022 (SCI-Expanded)

XVII. Reliability of linear WSNs: A complementary overview and analysis of impact of cascaded failures on network lifetime

Carsancakli M. F., Imran M. A. A., YILDIZ H. U., KARA A., TAVLI B.

AD HOC NETWORKS, vol.131, 2022 (SCI-Expanded)

XVIII. Exclusion zone minimization and optimal operational mode selection for co-existent geostationary and non-geostationary satellites

Öztürk F., KARA A.

International Journal of Satellite Communications and Networking, vol.40, no.3, pp.191-203, 2022 (SCI-Expanded)

XIX. A study on the performance evaluation of wavelet decomposition in transient-based radio frequency fingerprinting of Bluetooth devices

Almashaqbeh H., Dalveren Y., KARA A.

MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, vol.64, no.4, pp.643-649, 2022 (SCI-Expanded)

XX. On the Performance of Energy Criterion Method in Wi-Fi Transient Signal Detection

 $\label{eq:continuous_problem} \mbox{Mohamed I., Dalveren Y., Catak F. O., KARA A.}$

ELECTRONICS, vol.11, no.2, 2022 (SCI-Expanded)

XXI. T-Junction Loaded With Interdigital Capacitor for Differential Measurement of Permittivity Mohammadi P., Mohammadi A., KARA A.

IEEE TRANSACTIONS ON INSTRUMENTATION AND MEASUREMENT, vol.71, 2022 (SCI-Expanded)

XXII. A case study on the assessment of RF switch and splitter options for coupling of transceiver modules to bidirectional antennas employed in linear wireless sensor networks

Dalveren Y., Durukan A. M., KARA A.

MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, vol.63, pp.2826-2832, 2021 (SCI-Expanded)

XXIII. Dual band, Miniaturized Permittivity Measurement Sensor with Negative-Order SIW Resonator Mohammadi P., Teimouri H., Mohammadi A., DEMİR Ş., KARA A.

IEEE Sensors Journal, vol.21, pp.22695-22702, 2021 (SCI-Expanded)

XXIV. Compact Size, and Highly Sensitive, Microwave Sensor for Non-Invasive Measurement of Blood Glucose Level

Mohammadi P., Mohammadia A., DEMİR Ş., KARA A.

IEEE SENSORS JOURNAL, vol.21, no.14, pp.16033-16042, 2021 (SCI-Expanded)

XXV. Distributed denial-of-service attack mitigation in network functions virtualization-based 5G networks using management and orchestration

Köksal S., Dalveren Y., Maiga B., Kara A.

International Journal of Communication Systems, vol.34, 2021 (SCI-Expanded)

XXVI. Design and optimization of piezoelectric-powered portable UV-led water disinfection system Şala D. E., Dalveren Y., Kara A., Derawi M.

Applied Sciences (Switzerland), vol.11, no.7, 2021 (SCI-Expanded)

XXVII. A Simple Propagation Model to Characterize the Effects of Multiple Human Bodies Blocking Indoor Short-Range Links at 28 GHz

Dalveren Y., Karatas G., Derawi M., Kara A.

ELECTRONICS, vol.10, no.3, 2021 (SCI-Expanded)

XXVIII. Opportunities and challenges in RCS measurement of 9-mm bullet model with 77 GHzmmwave COTS radar systems

Almod D. Wom A. Zondo E. Donos de la

Ahmed B., Kara A., Zencir E., Benzaghta M.

MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, vol.62, no.12, pp.3772-3778, 2020 (SCI-Expanded)

XXIX. On the design and effectiveness of Simulink-based educational material for a communication systems course

Coruk R. B., Yalcinkaya B., Kara A.

COMPUTER APPLICATIONS IN ENGINEERING EDUCATION, vol.28, no.6, pp.1641-1651, 2020 (SCI-Expanded)

XXX. Performance Analysis of Modular RF Front End for RF Fingerprinting of Bluetooth Devices
Uzundurukan E., Ali A. M., Dalveren Y., Kara A.

WIRELESS PERSONAL COMMUNICATIONS, vol.112, no.4, pp.2519-2531, 2020 (SCI-Expanded)

XXXI. Optimal operation mode selection for energy-efficient light-weight multi-hop time synchronization in linear wireless sensor networks

Al Imran M. A., Dalveren Y., Tavli B., Kara A.

EURASIP JOURNAL ON WIRELESS COMMUNICATIONS AND NETWORKING, vol.2020, no.1, 2020 (SCI-Expanded)

XXXII. On the Performance of Variational Mode Decomposition-Based Radio Frequency Fingerprinting of Bluetooth Devices

Aghnaiya A., Dalveren Y., Kara A.

SENSORS, vol.20, no.6, 2020 (SCI-Expanded)

XXXIII. Variational Mode Decomposition-Based Threat Classification for Fiber Optic Distributed Acoustic Sensing

Abufana S. A., Dalveren Y., Aghnaiya A., Kara A.

IEEE ACCESS, vol.8, pp.100152-100158, 2020 (SCI-Expanded)

XXXIV. Performance Assessment of Transient Signal Detection Methods and Superiority of Energy Criterion (EC) Method

Mohamed I. S., Dalveren Y., Kara A.

IEEE ACCESS, vol.8, pp.115613-115620, 2020 (SCI-Expanded)

XXXV. Miniaturised antenna at a sub-GHZ band for industrial remote controllers

Yilmaz V. S., Bilgin G., Aydin E., Kara A.

IET MICROWAVES ANTENNAS & PROPAGATION, vol.13, no.9, pp.1408-1413, 2019 (SCI-Expanded)

XXXVI. A flipped classroom in communication systems: Student perception and performance assessments Oncel A. F., Kara A.

INTERNATIONAL JOURNAL OF ELECTRICAL ENGINEERING EDUCATION, vol.56, no.3, pp.208-221, 2019 (SCI-Expanded)

XXXVII. Multipath Exploitation in Emitter Localization for Irregular Terrains

Dalveren Y., Kara A.

RADIOENGINEERING, vol.28, no.2, pp.473-482, 2019 (SCI-Expanded)

XXXVIII. Comparative assessment of electromagnetic simulation tools for use in microstrip antenna design: Experimental demonstrations

Bilgin G., Yilmaz V. S., Kara A., Aydin E.

MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, vol.61, no.2, pp.349-356, 2019 (SCI-Expanded)

XXXIX. Assessment of Features and Classifiers for Bluetooth RF Fingerprinting

Ali A. M., Uzundurukan E., Kara A.

IEEE ACCESS, vol.7, pp.50524-50535, 2019 (SCI-Expanded)

XL. Variational Mode Decomposition-Based Radio Frequency Fingerprinting of Bluetooth Devices Aghnaiya A., Ali A. M., Kara A.

IEEE ACCESS, vol.7, pp.144054-144058, 2019 (SCI-Expanded)

XLI. A Simplified Model for Characterizing the Effects of Scattering Objects and Human Body Blocking Indoor Links at 28 GHz

Dalveren Y., Alabish A. H., Kara A.

IEEE ACCESS, vol.7, pp.69687-69691, 2019 (SCI-Expanded)

XLII. Improvements on deinterleaving of radar pulses in dynamically varying signal environments Gencol K., Kara A., At N.

DIGITAL SIGNAL PROCESSING, vol.69, pp.86-93, 2017 (SCI-Expanded)

XLIII. A wavelet-based feature set for recognizing pulse repetition interval modulation patterns

Gencol K., At N., Kara A.

TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.24, no.4, pp.3078-3090, 2016 (SCI-Expanded)

XLIV. Quality of service assessment: a case study on performance benchmarking of cellular network operators in Turkey

Kadioglu R., Dalveren Y., Kara A.

TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.23, no.2, pp.548-559, 2015 (SCI-Expanded)

XLV. Heterogeneity in Classes: Cooperative Problem-Solving Activities through Cooperative Learning Cigdemoglu C., Kapusuz K. Y., Kara A.

Croatian Journal of Education-Hrvatski Casopis za Odgoj i obrazovanje, vol.16, no.4, pp.999-1029, 2014 (SSCI)

XLVI. An Enhanced Course in Digital Communications

Kara A., Cagiltay N. E., Dalveren Y.

INTERNATIONAL JOURNAL OF ENGINEERING EDUCATION, vol.30, no.4, pp.1048-1059, 2014 (SCI-Expanded)

XLVII. Seven Principles of Instructional Content Design for a Remote Laboratory: A Case Study on ERRL Cagiltay N. E., Aydin E., Aydin C. C., Kara A., Alexandru M. IEEE TRANSACTIONS ON EDUCATION, vol.54, no.2, pp.320-327, 2011 (SCI-Expanded)

Improvements on Slope Diffraction for Multiple Wedges

XLVIII.

Tabakcioglu M. B., Kara A.

ELECTROMAGNETICS, vol.30, no.3, pp.285-296, 2010 (SCI-Expanded)

XLIX. Requirements for Remote RF Laboratory Applications: An Educators' Perspective

Cagiltay N. E., Aydin E., Oktem R., Kara A., Alexandru M., Reiner B.

IEEE TRANSACTIONS ON EDUCATION, vol.52, no.1, pp.75-81, 2009 (SCI-Expanded)

L. Comparison of Improved Slope Uniform Theory of Diffraction with Some Geometrical Optic and Physical Optic Methods for Multiple Building Diffractions

Tabakcioglu M. B., Kara A.

ELECTROMAGNETICS, vol.29, no.4, pp.303-320, 2009 (SCI-Expanded)

Human body shadowing variability in short-range indoor radio links at 3-11 GHz band

INTERNATIONAL JOURNAL OF ELECTRONICS, vol.96, no.2, pp.205-211, 2009 (SCI-Expanded)

Remote RF laboratory requirements: Engineers' and technicians' perspective Cagiltay N. E., Aydin E. U., Kara A.

Turkish Online Journal of Distance Education, vol.8, no.4, pp.80-95, 2007 (SCI-Expanded)

LIII. Effect of people moving near short-range indoor propagation links at 2.45 GHz

JOURNAL OF COMMUNICATIONS AND NETWORKS, vol.8, no.3, pp.286-289, 2006 (SCI-Expanded)

LIV. Scattering of plane waves at the junction of two corrugated half-planes

Serbest A., Kara A., Lueneburg E.

ELECTROMAGNETICS, vol.25, no.1, pp.21-38, 2005 (SCI-Expanded)

LV. Limit and application range of the slope-diffraction method for wireless communications Kara A., Bertoni H. L., Yazgan E.

IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol.51, no.9, pp.2512-2514, 2003 (SCI-Expanded)

LVI. Roof shape modelling for multiple diffraction loss in cellular mobile communication systems Kara A., Yazgan E.

INTERNATIONAL JOURNAL OF ELECTRONICS, vol.89, no.10, pp.753-758, 2002 (SCI-Expanded)

LVII. Diffraction coefficient for a half-plane with anisotropic conductivity

Buyukaksoy A., SERBEST A., Kara A.

IEE PROCEEDINGS-SCIENCE MEASUREMENT AND TECHNOLOGY, vol.143, no.6, pp.384-388, 1996 (SCI-Expanded)

Articles Published in Other Journals

I. A Mini-Review on SDR Based Radar Classification System: Recent Advances and Challenges Oncu S., Kara A.

Journal of Science, Technology and Engineering Research, vol.4, no.2, pp.124-129, 2023 (Peer-Reviewed Journal)

II. A Miniaturized Multi-layer Microstrip Antenna for Linear Wireless Sensor Network Monitoring Systems

Benzaghta M., Er B., Bilgin G., Aydın E., Kara A.

GAZI UNIVERSITY JOURNAL OF SCIENCE, vol.35, no.4, pp.875-884, 2022 (Scopus)

III. Deep Learning Based Threat Classification for Fiber Optic Distributed Acoustic Sensing Using SNR Dependent Data Generation

UZUNDURUKAN E., KARA A.

Journal of Scientific, Technology and Engineering Research, 2020 (Peer-Reviewed Journal)

IV. A Database for the Radio Frequency Fingerprinting of Bluetooth Devices

Uzundurukan E., Dalveren Y., Kara A.

DATA, vol.5, no.2, 2020 (ESCI)

V. Design and Development of an Android Accessory

Fatma Cemile S., Ahmet E., Kara A.

International Journal of Electronics and Electrical Engineering, no.5, 2015 (Peer-Reviewed Journal)

VI. Determination of scattering center of multipath signals using geometric optics and Fresnel zone concepts

Kamil Yavuz K., Kara A.

Engineering Science and Technology, an International Journal, no.17, 2014 (Scopus)

VII. On the Design of Elective Courses in RF and Communications According to the Needs of Industry DALVEREN Y., KARA A.

Procedia - Social and Behavioral Sciences, no.46, 2012 (Scopus)

VIII. Remote Laboratory Development as an Action Research A Case Study

ÇAĞILTAY N., KARA A., AYDIN E., TOKDEMİR G.

Scientific Essays, no.7, 2012 (Peer-Reviewed Journal)

IX. Maintenance Sustainability and Extendibility in Virtual and Remote Laboratories

KARA A., ÇAĞILTAY N., AYDIN E., ÖZBEK M. E.

Procedia Social and Behavioral Sciences,, no.28, 2011 (Scopus)

X. Modelling of shadowing loss due to huge non-polygonal structures in urban radio propagation Kara A., Yazgan E.

Progress In Electromagnetics Research B, vol.6, pp.123-134, 2008 (Scopus)

Books & Book Chapters

I. Antenna Theory Analysis and Design Editör Çevirmen

ÇAĞLAR M. F., AYDIN E., KARA A.

Nobel Yayınevi, 2013

II. Communications, RF and Microwaves Fundamentals: From Theory to Remote Experimentation

Alexandru M., Kara A., Aydın E., Yapıcı A. Ç.

 $Transilvania\ University\ of\ Brasov\ Publishing\ House,\ Brasov,\ 2008$

Refereed Congress / Symposium Publications in Proceedings

I. Practical Implications of the Use of Radio Frequency Fingerprinting (RFF)in Cybersecurity of Smart Grid

Kara A.

4th IFSA Winter Conference on Automation, Robotics & Communications for Industry 4.0/5.0, Innsbruck, Austria, 7 - 09 February 2024

II. A Mini-Review on Radio Frequency Fingerprinting Localization in Outdoor Environments: Recent Advances and Challenges

Dogan D., Dalveren Y., KARA A.

14th International Conference on Communications, COMM 2022, Bucharest, Romania, 16 - 18 June 2022

III. An Experimental Study on the Influence of Human Movement in Indoor Radio Channel at 28GHz
Benzaghta M., Coruk R. B., Yalcinkaya B., KARA A.

2021 IEEE International Black Sea Conference on Communications and Networking, BlackSeaCom 2021, Virtual, Bucharest, Romania, 24 - 28 May 2021

IV. Kapsama Alanı Benzetimlerine Yönelik İşın İzleme Algoritmalarının Hesaplama Performansları Arık E., Tabakcıoğlu M. B., Kara A.

International Symposium of Scientific Research and Innovative Studies, Balıkesir, Turkey, 22 February 2021

V. Miniaturized 2.4 GHz Antenna Design for UAV communication link

Yilmaz V. S., Kara A., Aydin E.

28th Signal Processing and Communications Applications Conference (SIU), ELECTR NETWORK, 5 - 07 October 2020

VI. Linear Wireless Sensor Networks for Cathodic Protection Monitoring of Pipelines

Kara A., Al Imran M. A., Karadag K.

2019 International Conference on Mechatronics, Robotics and Systems Engineering, MoRSE 2019, Bali, Indonesia, 4 - 06 December 2019, pp.233-236

VII. Analysis of measurement instrumentation delay in modular experimental radar at C band Abdulrazigh M. Y. A., Uzundurukan E., Kara A.

26th IEEE Signal Processing and Communications Applications Conference, SIU 2018, İzmir, Turkey, 2 - 05 May 2018, pp.1-4

VIII. An Experimental Study towards Examining Human Body Movements in Indoor Wave Propagation at 18 - 22 GHz

DALVEREN Y., KARA A.

IEEE International Symposium on Networks, Computers and Communications (ISNCC'2018), 10 - 14 June 2018

IX. On the Accuracy of TDOA-based Passive Localization of Emitters", 5th International Symposium on Engineering

DALVEREN Y., KARA A.

Artificial Intelligence and Applications (ISEAIA 2017), 30 October - 03 November 2017

X. An Approach for Identifying the Likelihood of an Irregular Terrain Profile Being a Multipath Scattering Center in Emitter Localization

DALVEREN Y., KARA A.

ACM 7th International Conference on Information Communication and Management (ICICM 2017), 6 - 11 August 2017

XI. Design Considerations For Sub-GHz Multilayer Microstrip Antenna For Near Ground Communication Links In Rural Areas

Bilgin G., Yilmaz V. S., Aydin E., Kara A.

10th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 30 November - 02 December 2017, pp.661-665

XII. Design of Low-Cost Modular RF Front End for RF Fingerprinting of Bluetooth Signals

Uzundurukan E., Ali A. M., Kara A.

25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017

XIII. Design Considerations for Near to the Ground Communication System and Associated Sub-GHz Low Profile Antenna

Yilmaz V. S., Bilgin G., Aydin E., Kara A.

24th IEEE International Conference on Electronics, Circuits and Systems (ICECS), Batumi, Georgia, 5 - 08 December

2017, pp.120-123

XIV. Improvements on Transient Signal Detection for RF Fingerprinting

Ali A. M., Uzundurukan E., Kara A.

25th Signal Processing and Communications Applications Conference (SIU), Antalya, Turkey, 15 - 18 May 2017

XV. Comparative Analysis of TDOA-based Localization Methods in the Presence of Sensor Position Errors

Dalveren Y., Kara A.

4th International Conference on Control, Decision and Information Technologies (CoDIT), Barcelona, Spain, 5 - 07 April 2017, pp.556-560

XVI. A Low Cost Smartphone Controlled Wireless Data Logger System for Monitoring of Safety Critical Areas

DALVEREN Y., KARA A.

3rd International Conference on Advanced Technology Sciences (ICAT'xx16), 1 - 04 October 2016

XVII. UHF Propagation Measurements in Heavy Industry

Tutuncu S., Kara A.

24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016, pp.541-544

XVIII. Spectrum Analysis of Parabolic Range Gate Pull-Off (RGPO) Signals

Ozturk M. T., Dalveren Y., Kara A.

23nd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015, pp.1026-1029

XIX. Characterization of Satellite Transponder Impairments Based on Simulations with Test Data Ulubey O., Gulgonul S., Kara A.

7th International Conference on Recent Advances in Space Technologies (RAST), İstanbul, Turkey, 16 - 19 June 2015, pp.373-378

XX. New wavelet-based features for the recognition of jittered and stagger PRI modulation types Gencol K., Kara A., At N.

23nd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015, pp.2134-2137

XXI. An Industry Sponsored Undergraduate Research (UR) Experience: Preliminary Study on Fulfillment of Program Outcomes and Industry Requirements

Kapusuz K. Y., Kara A.

IEEE Global Engineering Education Conference, İstanbul, Turkey, 3 - 05 April 2014, pp.306-311

XXII. A MODULAR FMCW RADAR RF FRONT END DESIGN:SIMULATION AND IMPLEMENTATION

Dagdeviren B., Kapusuz K. Y., Kara A.

 $22 nd\ IEEE\ Signal\ Processing\ and\ Communications\ Applications\ Conference\ (SIU),\ Trabzon,\ Turkey,\ 23-25\ April\ 2014,\ pp.1762-1765$

XXIII. Development of a low cost radio controller for Tele operation systems: Crane controller design as an industry sponsored undergraduate research

Kaynaköz G., Dağdeviren B., Kapusuz K. Y., Kara A.

20th Annual International Conference on Mechatronics and Machine Vision in Practice, M2VIP 2013, Ankara, Turkey, 20 September 2013, pp.40-45

XXIV. Design of a Scenario-Based Synthetic Mixed Pulse Generator

Gencol K., Kara A., At N.

21st Signal Processing and Communications Applications Conference (SIU), CYPRUS, 24 - 26 April 2013

XXV. On the design of elective courses in rf and communications according to the needs of industry Dalveren Y., Kara A.

4th World Conference on Educational Sciences (WCES), Barcelona, Spain, 2 - 05 February 2012, vol.46, pp.1547-1551

XXVI. Signal and System Level Simulations for Wideband Intercept Receivers: Eliminating Spur Signals Karadede I., Kara A.

9th International Conference on Electronics Computer and Computation (ICECCO 2012), Ankara, Turkey, 1 - 03 November 2012, pp.215-219

XXVII. Development of a digital communications course enriched by virtual and remote laboratory tools Kara A., Cagiltay N., Dalveren Y.

2011 International Conference on Information Technology Based Higher Education and Training, ITHET 2011, Kusadasi, Turkey, 4 - 06 August 2011

XXVIII. Maintenance, sustainability and extendibility in virtual and remote laboratories

Kara A., Ozbek M. E., Cagiltay N. E., Aydin E.

World Conference on Educational Technology Researches (WCETR), Nicosia, CYPRUS, 5 - 09 July 2011, vol.28

XXIX. Principles for the design of a remote laboratory: A case study on ERRL

Cagiltay N. E., Aydin E., Kara A.

2010 IEEE Education Engineering Conference, EDUCON 2010, Madrid, Spain, 14 - 16 April 2010, pp.879-884

XXX. Software technologies, architectures and interoperability in remote laboratories

Özbek M. E., Kara A., Ataş M.

2010 9th International Conference on Information Technology Based Higher Education and Training, ITHET 2010, Cappadocia, Turkey, 29 April - 01 May 2010, pp.402-406

XXXI. Design and development of a remote and virtual environment for experimental training in electrical and electronics engineering

Kara A., Aydin E., Ozbek M. E., Cagiltay N.

2010 9th International Conference on Information Technology Based Higher Education and Training, ITHET 2010, Cappadocia, Turkey, 29 April - 01 May 2010, pp.194-200

XXXII. A New Approach to Threat Tracking on ESM Systems by Using Kalman Filters

Celebi M. B., Kara A., Akar B., Tumay A., Dincer K.

IEEE 17th Signal Processing and Communications Applications Conference, Antalya, Turkey, 9 - 11 April 2009, pp.435-438

XXXIII. A Study for Development of Propagation Model Based on Ray Tracing for Coverage Prediction in Terrestrial Broadcasting Systems

Tabakcioglu M. B., Ozmen A., Kara A.

IEEE 17th Signal Processing and Communications Applications Conference, Antalya, Turkey, 9 - 11 April 2009, pp.431-432

XXXIV. Distance laboratory applications ERRL: A study on radio communication in electronic field Aydin C., Türkmen G., Özyurt E., Aydın E., Çağıltay N., Özbek M., Ceren Alparslan N., Kara A.

11th International Conference on Optimization of Electrical and Electronic Equipment, OPTIM 2008, Brasov, Romania, 22 - 24 May 2008, pp.157-162

XXXV. On the improvements in multiple edge transition zone diffraction

Tabakcioglu M., Kara A.

2nd European Conference on Antennas and Propagation, EuCAP 2007, Edinburgh, United Kingdom, 11 - 16 November 2007, vol.2007

XXXVI. Pilot remote experiment in the ERRL: Measurement of scattering parameters

Oezen M., Aydin E. U., Kara A.

18th IEEE International Symposium on Personal, Indoor and Mobile Radio Communication, Athens, Greece, 3 - 07 September 2007, pp.3827-3830

XXXVII. A remote laboratory for training in radio communications: ERRL

Kara A., Aydin E. U., Oektem R., Cagiltay N.

18th IEEE International Symposium on Personal, Indoor and Mobile Radio Communication, Athens, Greece, 3 - 07 September 2007, pp.4275-4276

XXXVIII. Measurement of local environmental effects in UWB channels

Vural M. D., Yildiz M., Kara A.

European Conference on Antennas and Propagation: EuCAP 2006, Nice, France, 6 - 10 November 2006

XXXIX. Blockage/shadowing and polarization measurements at 2.45GHz for interference evaluation between Bluetooth and IEEE 802.11 WLAN

Kara A., Bertoni H.

2001 IEEE Antennas and Propagation Society International Symposium -FDTD and Multi-Resolution Methods-, Boston, MA, United States Of America, 8 - 13 July 2001, vol.3, pp.376-379

Supported Projects

SAĞIROĞLU Ş., KARA A., DEMİRCİ M. S., DENER M., DEMİRCİ M., ATAY Y., Project Supported by Higher Education Institutions, Akıllı Şebekeler için Zeki Siber Güvenlik Çözümleri Geliştirme, 2022 - Continues

Kara A., EU Supported Other Project, Physical layer security for trustworthy and resilient 6G systems (6G-PHYSEC) [COST], 2023 - 2027

Kara A., EU Supported Other Project, Behavioral Next Generation in Wireless Networks for Cyber Security (BEiNG-WISE) [COST], 2023 - 2027

Kara A., Ergün Yardım F., Akşahin M. F., TÜBİTAK International Bilateral Joint Cooperation Program Project, Compact Size and Highly Sensitive Non-Invasive Radio-Frequency (RF) Sensor for Blood Glucose Level (BGL) Monitoring, 2023 - 2024

Kaynar M. B., Kara A., TUBITAK Project, Radar Kesit Alanı Düşürücü Hafifletilmiş Örtülerin Geliştirilmesi, 2021 - 2023 Toruner S., Kara A., TUBITAK Project, Görev Yükü Kısıtı Olan İnsansız Hava Araçları (İHA) İle Otomotiv Radarları Kullanılarak Nesne Tespit ve Teşhisine Yönelik Algoritmik Geliştirmeler, 2021 - 2022

Kara A., Technopark, Radar Soğurucu Malzemelerin 8-18 GHz Bandında Yansıtma ve Geçirgenlik Ölçümleri için Düşük Maliyetli Ölçüm Sistemi, 2021 - 2022

Dalveren Y., Kara A., TUBITAK Project, Yansımaları Kullanarak Emisyon Kaynaklarının Yer Tespiti, 2019 - 2021

Kara A., TUBITAK Project, Kritik Tesisleri Korozyona Karşı Korumaya Yönelik Kablosuz Algılayıcı Ağ Tabanlı Kontrol ve İzleme Sisteminin Geliştirilmesi, 2018 - 2020

Aydın E., Kara A., TUBITAK Project, GHz altı ISM bantlarında çalışan, ortama uyarlı, çift bantlı operasyon kabiliyeti olan minyatürize anten tasarımı ve üretimi, 2017 - 2018

Tütüncü Ş., Kara A., TUBITAK Project, Kullanıcı Tarafından Yapılandırılabilir Radyo Haberleşme, Kontrol Sistemi ve Bileşenlerinin Tasarımı, Geliştirilmesi, 2015 - 2016

Kara A., Project Supported by Other Private Institutions, Design and Fabrication of Band Pass Filters at X and Ka Bands, 2014 - 2015

Kara A., Project Supported by Higher Education Institutions, Heterojen Sınıflarda İşbirlikçi Problem Çözme Stratejileri, 2013 - 2015

Kara A., Project Supported by Other Official Institutions, Development of Effective Pulse De interleaving and Emitter Identification Techniques for ESM Systems, 2008 - 2009

Kara A., EU Supported Other Project, European Remote Radio Laboratory, 2006 - 2008

Kara A., TUBITAK Project, Eğim Kırınımı ve Dışbükey Zarf Tekniğine Dayalı Radyo Yayılım Modeli, 2006 - 2008 Bertoni H. L., Kara A., Industrial Organizations of Other Countries Supported Project, Interference Evaluation between WLAN and Bluetooth, 1999 - 2000

Patent

Kara A., ISM Bandında Çok bantlı Alıcı Verici Modül Tasarımı, Patent, CHAPTER H Electricity, The Invention Registration Number: TR 2015 17525 B, Standard Registration, 2023

Kara A., High Precision Noninvasive Blood Glucose Measurement Sensor and System with Microstrip Technology, Patent, CHAPTER H Electricity, The Invention Recourse Number: PCT/TR2022/050991, Standard Registration, 2022

Kara A., Yansımalar kullanılarak emisyon kaynaklarının konumlandırılmasında doğruluğun arttırılması, Patent, CHAPTER H Electricity, The Invention Registration Number: TR 2016 18856 A2, Standard Registration, 2021

Kara A., Yansımalar kullanılarak emisyon kaynaklarının konumlandırılması yöntemi, Patent, CHAPTER H Electricity, The Invention Registration Number: TR 2014 15961 A2, Standard Registration, 2019

Kara A., Radar Emitörlerinin Pasif Konumlandırılmasında Çok Yollu Saçılmaların Yol Kayıpları Üzerinden Kullanımı ile

Doğruluğun Arttırılması, Patent, CHAPTER H Electricity, The Invention Recourse Number: 2017/19517, Standard Registration, 2017

Memberships / Tasks in Scientific Organizations

IEEE, Member, 1993 - 2022, United States Of America

Scientific Refereeing

IEEE TRANSACTIONS ON INSTRUMENTATION AND MEASUREMENT, SCI Journal, December 2023

IEEE SENSORS JOURNAL, SCI Journal, December 2023

WIRELESS PERSONAL COMMUNICATIONS, SCI Journal, October 2023

ELECTRONICS LETTERS, SCI Journal, August 2023

NATURE COMMUNICATIONS, SCI Journal, May 2023

IEEE TRANSACTIONS ON VEHICULAR TECHNOLOGY, SCI Journal, February 2023

IEEE SIGNAL PROCESSING LETTERS, SCI Journal, February 2023

CHINA COMMUNICATIONS, SCI Journal, January 2023

IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS, SCI Journal, October 2022

IEEE SENSORS JOURNAL, SCI Journal, October 2022

SYMMETRY, SCI Journal, August 2022

COMPUTER APPLICATIONS IN ENGINEERING EDUCATION, SCI Journal, July 2022

IEEE ACCESS, SCI Journal, July 2022

IEEE TRANSACTIONS ON INDUSTRIAL INFORMATICS, SCI Journal, June 2022

IEEE COMMUNICATIONS LETTERS, SCI Journal, March 2022

IEEE TRANSACTIONS ON AEROSPACE AND ELECTRONIC SYSTEMS, Journal Indexed in SCI-E, May 2021

IEEE TRANSACTIONS ON SIGNAL PROCESSING, Journal Indexed in SCI-E, April 2021

IEEE COMPUTATIONAL INTELLIGENCE MAGAZINE, Journal Indexed in SCI-E, March 2021

CHINA COMMUNICATIONS, Journal Indexed in SCI-E, March 2021

PHYSICAL COMMUNICATION, Journal Indexed in SCI-E, February 2021

Metrics

Publication: 108 Citation (WoS): 538 Citation (Scopus): 817 H-Index (WoS): 17 H-Index (Scopus): 19

Congress and Symposium Activities

4th IFSA Winter Conference on Automation, Robotics & Communications for Industry 4.0 / 5.0, Session Moderator, Innsbruck, Austria, 2024

Invited Talks

A Physical Layer Security Method in Wireless Networks: RF Fingerprinting (RFF), Conference, Universitas Negeri Surabaya, Indonesia, December 2020 Students' Perception towards Transition to New Teaching Approaches in Engineering Education: Quantitative and Qualitative Discussion, Conference, 3rd International Conference on Electrical and Electronics Engineering, Turkey, April 2016

Non Academic Experience

University, Alparslan Defence Sciences Institute, Radar and Electronic Warfare University, Turkish Air Force Academy, Radar and Electronic Warfare (Graduate Program)