

## Prof. ERKAN AFACAN

### Personal Information

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**Address:** Gazi Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 06570 Maltepe/Ankara

### International Researcher IDs

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Publons / Web Of Science ResearcherID: A-6549-2013

ScopusID: 6602642693

Yoksis Researcher ID: 133671

### Biography

He was born in Yesilova/Burdur, Turkey in 1966. He has received B.Sc., M. Sc. and Ph.D. degrees in Electronics Engineering in 1987, 1990 and 1996 from Hacettepe University, Electrical and Electronics Engineering Department. From November 1987 to March 1997 he has worked as a Research Assistant at Hacettepe University, Electrical and Electronics Engineering Department. In March 1997, he has joined the Faculty of Engineering and Architecture, Gazi University and currently he is working as a Professor in the Department of Electrical and Electronics Engineering. He is married and he has two children. He knows English and Russian.

### Education Information

Doctorate, Hacettepe University, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Mühendisliği (Dr), Turkey 1990 - 1996

Postgraduate, Hacettepe University, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Mühendisliği (Yl) (Tezli), Turkey 1987 - 1990

Undergraduate, Hacettepe University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, Turkey 1983 - 1987

### Foreign Languages

Russian, B2 Upper Intermediate

English, C2 Mastery

### Dissertations

Doctorate, Alçak irtifa radar sistemleri için yayılma yolu üzerindeki engellerin modellenmesi, Hacettepe University, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Mühendisliği (Dr), 1996

Postgraduate, Kama biçimli engellerden saçılmanın modellenmesi, Hacettepe University, Fen Bilimleri Enstitüsü, Elektrik-Elektronik Mühendisliği (Yl) (Tezli), 1990

## **Research Areas**

Communication System Theory, Cryptography, Electromagnetic Waves, Antennas and Propagation, Field Theory and Polynomials

## **Academic and Administrative Experience**

Head of Department, Gazi University, Mühendislik Fakültesi, Elektrik - Elektronik Mühendisliği, 2020 - 2022  
Fakülte Yönetim Kurulu Üyesi, Gazi University, Mühendislik Fakültesi, Elektrik - Elektronik Mühendisliği, 2019 - 2022  
Fakülte Kurulu Üyesi, Gazi University, Mühendislik Fakültesi, Elektrik - Elektronik Mühendisliği, 2016 - 2022  
Gazi University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2013 - 2014  
Gazi University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 2001 - 2002  
Gazi University, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 1997 - 1997

## **Advising Theses**

Afacan E., Elektromanyetik Girişimlere Karşı Süzgeç Tasarımı, Postgraduate, K.KUŞ(Student), 2023  
Afacan E., Eliptik eğriler ile kimlik tabanlı sertifikasız kriptografi, Doctorate, Y.GENÇ(Student), 2023  
Afacan E., COMPARISON OF ELECTRIC FIELD STRENGTH IN RS103 TEST GENERATED BY THE BICONICAL ANTENNA AND E-FIELD GENERATOR, Postgraduate, B.DEMİRDÖĞEN(Student), 2022  
Afacan E., Yazgan E., POSITIONAL MODULATION WITH FDA ANTENNA AND SECURE COMMUNICATION METHOD ON PHYSICAL LAYER, Doctorate, A.AKKOÇ(Student), 2022  
İnanç N., Afacan E., Zaman modülasyonlu doğrusal anten dizilerinin matris kalem yöntemi ile incelenmesi, Doctorate, N.AYTAŞ(Student), 2022  
Afacan E., Modelling Of Plasma Antennas With Fdtd, Doctorate, S.Alparslan(Student), 2021  
AFACAN E., Simulation Of A Homomorphic Encryption System, Postgraduate, H.Çağıl(Student), 2019  
AFACAN E., The Investigation Of Electric Field Shielding Effectiveness Of Metallic Enclosures With Various Apertures At Electromagnetic Compatibility, Postgraduate, H.ÇOPUR(Student), 2019  
AFACAN E., Wavelet Method Based Image Fusion Techniques, Postgraduate, Ş.PEHLİVANLI(Student), 2019  
AFACAN E., Design Of Effective Antenna Array For Speed Detection Radar Applications, Postgraduate, E.DABAK(Student), 2019  
AFACAN E., Shielding In Electromagnetic Interference Protection And Investigation Of The Shielding Effectiveness Of Materials, Postgraduate, Y.ÖZKAN(Student), 2018  
AFACAN E., Wideband Antenna Optimization, Postgraduate, M.ÖNER(Student), 2017  
AFACAN E., The Optimization Of Circular Antenna Arrays Using Particle Swarm Optimization, Postgraduate, Ç.KORKUÇ(Student), 2016  
AFACAN E., The Analysis Of The Performances Of Square Array Antennas, Postgraduate, R.BAYRAMOV(Student), 2016  
AFACAN E., Design Of Circular Array Antennas Using Genetic Algorithm, Postgraduate, B.ÖZEN(Student), 2015  
AFACAN E., High frequency gaussian beam interaction with plasma medium, Postgraduate, S.ALPARSLAN(Student), 2014  
AFACAN E., Transmission line E/H field generator, Postgraduate, A.KARAALI(Student), 2014  
AFACAN E., Usage Of Costas Arrays In Low Probability Of Intercept Radars, Postgraduate, F.GÜLEÇ(Student), 2014  
AFACAN E., electromagnetic interference filter design, Postgraduate, H.ÇAĞLAR(Student), 2014  
AFACAN E., Plasma- antenna design by using finite difference time domain method, Postgraduate, E.ÖZEN(Student), 2013  
AFACAN E., Direction of arrival estimation methods for smart antenna systems, Postgraduate, T.ORUL(Student), 2012  
AFACAN E., Array thinning, sideband analysis and pulse optimization for time modulated antenna arrays, Doctorate, E.AKSOY(Student), 2012  
AFACAN E., Increasing the efficiency of wireless energy transfer, Postgraduate, A.ERDEM(Student), 2011  
AFACAN E., Kısa dalga linklerinde MUSIC (MULTiple SIgnal Classification) algoritması kullanılarak sinyallerin geliş yönlerinin belirlenmesi, Postgraduate, F.KUTAY(Student), 2011

AFACAN E., OSI katman modelinde 3. katman güvenlik duvarı uygulaması, Postgraduate, O.BAŞKAYA(Student), 2010

AFACAN E., Faz dizili dairesel mikroşerit antenlerin genetik algoritma ile optimizasyonu, Postgraduate, M.SELİM(Student), 2010

AFACAN E., Güvenli özet algoritması, Postgraduate, B.BUDAK(Student), 2010

AFACAN E., Video Kameralı Radar Sistemi İçin Mobil Plaka Tanıma Sistemi Uygulaması, Postgraduate, O.DEMİR(Student), 2010

AFACAN E., FAZ DİZİLİ DAİRESEL MİKROSERİT ANTENLERİN GENETİK ALGORİTMA İLE OPTİMİZASYONU, Postgraduate, M.Selim(Student), 2010

AFACAN E., MODELLING OF RADIO WAVE PROPAGATION IN TUNNEL ENVIRONMENTS, Postgraduate, N.KAPLAN(Student), 2010

AFACAN E., SIMULATION OF TURBO CODES IN DIGITAL COMMUNICATION, Postgraduate, Y.TEKİN(Student), 2008

AFACAN E., Diferensiyal evrim algoritması ile anten dizilerinde örüntü şekillendirme, Postgraduate, E.AKSOY(Student), 2007

AFACAN E., THE MODELLING OF AES ENCRYPTION ALGORITHM, Postgraduate, M.DİRAYET(Student), 2007

AFACAN E., Elektronik harp ve sinyal karıştırması, Postgraduate, M.ÖZÇELİK(Student), 2006

AFACAN E., Dalga kılavuzunda yayılan elektromanyetik dalganın dalgacık dönüşümü ile modellenmesi, Postgraduate, S.FİDAN(Student), 2006

AFACAN E., Eliptik eğriler ile sayısal imza, Postgraduate, F.DEĞİRMENCI(Student), 2006

AFACAN E., Eliptik eğri kriptografisi, Postgraduate, Ö.ÇETİN(Student), 2006

AFACAN E., Genetik algoritma ile iletişim ağlarında yönlendirme optimizasyonu, Postgraduate, A.ÖZBİLEN(Student), 2006

AFACAN E., Kaotik bir haberleşme sisteminin simülasyonu, Postgraduate, F.ERGÜN(Student), 2005

AFACAN E., GSM sisteminde hücre planlamasının bulanık mantık ile denetimi, Postgraduate, A.HAKAN(Student), 2005

AFACAN E., GSM sisteminde kapasite artışı durumunda tabu arama algoritması ile hücre planlaması, Postgraduate, B.KAAN(Student), 2004

AFACAN E., Mikrodalga ile tomografik görüntüleme, Postgraduate, G.TİKİT(Student), 2002

AFACAN E., Fiber optikte dalga yayılımı, Postgraduate, M.AKİF(Student), 2002

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

- I. **BLOCKBOX: Blockchain based black box designing and modeling**  
Korkuc C., Aytas Korkmaz N., Genc Y., Akkoc A., AFACAN E., Yazgan E.  
Concurrency and Computation: Practice and Experience, 2024 (SCI-Expanded)
- II. **Time Invariant and Localized Secure Reception with Sequential Multi-Carrier Receive-FDA**  
Akkoc A., Korkmaz N. A., Genc Y., AFACAN E., Yazgan E.  
IEEE Transactions on Antennas and Propagation, vol.71, no.9, pp.7064-7072, 2023 (SCI-Expanded)
- III. **ELCPAS: A new efficient lightweight certificateless conditional privacy preserving authentication scheme for IoV**  
Genc Y., Aytas N., Akkoc A., AFACAN E., Yazgan E.  
Vehicular Communications, vol.39, 2023 (SCI-Expanded)
- IV. **A Novel Identity-Based Privacy-Preserving Anonymous Authentication Scheme for Vehicle- to- Vehicle Communication**  
Genc Y., Korkuc C., Aytas N., AFACAN E., SAZLI M. H., Yazgan E.  
ELEKTRONIKA IR ELEKTROTECHNIKA, vol.29, no.2, pp.69-77, 2023 (SCI-Expanded)
- V. **Direction of arrival estimation in time modulated linear arrays using matrix pencil method with single snapshot and optimized time steps**  
Aytas N., AFACAN E., İNANÇ N.  
AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS, vol.150, 2022 (SCI-Expanded)
- VI. **Dot-Shaped 3D Range-Angle Dependent Beamforming With Discular Frequency Diverse Array**  
Akkoc A., Afacan E., Yazgan E.

- IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol.69, no.10, pp.6500-6508, 2021 (SCI-Expanded)
- VII. **Location Optimization for Square Array Antennas Using Differential Evolution Algorithm**  
AFACAN E.  
INTERNATIONAL JOURNAL OF ANTENNAS AND PROPAGATION, vol.2016, 2016 (SCI-Expanded)
- VIII. **GAUSSIAN BEAM INTERACTION AT HIGH FREQUENCIES WITH PLASMA MEDIUM**  
AVCI S. A., AFACAN E.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.30, no.2, pp.273-279, 2015 (SCI-Expanded)
- IX. **An Inequality for the Calculation of Relative Maximum Sideband Level in Time-Modulated Linear and Planar Arrays**  
AKSOY E., AFACAN E.  
IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol.62, no.6, pp.3392-3397, 2014 (SCI-Expanded)
- X. **A Comparative Study on Sideband Optimization in Time-Modulated Arrays**  
AKSOY E., AFACAN E.  
INTERNATIONAL JOURNAL OF ANTENNAS AND PROPAGATION, vol.2014, 2014 (SCI-Expanded)
- XI. **Calculation of Sideband Power Radiation in Time-Modulated Arrays With Asymmetrically Positioned Pulses**  
AKSOY E., AFACAN E.  
IEEE ANTENNAS AND WIRELESS PROPAGATION LETTERS, vol.11, pp.133-136, 2012 (SCI-Expanded)
- XII. **SIMULATION OF A COMMUNICATION SYSTEM USING LORENZ- BASED DIFFERENTIAL CHAOS SHIFT KEYING (DCSK) MODEL**  
ERGÜN YARDIM F., AFACAN E.  
JOURNAL OF THE FACULTY OF ENGINEERING AND ARCHITECTURE OF GAZI UNIVERSITY, vol.25, no.1, pp.101-110, 2010 (SCI-Expanded)
- XIII. **Thinned Nonuniform Amplitude Time-Modulated Linear Arrays**  
AKSOY E., AFACAN E.  
IEEE ANTENNAS AND WIRELESS PROPAGATION LETTERS, vol.9, pp.514-517, 2010 (SCI-Expanded)
- XIV. **Planar antenna pattern nulling using differential evolution algorithm**  
AKSOY E., AFACAN E.  
AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS, vol.63, no.2, pp.116-122, 2009 (SCI-Expanded)
- XV. **The improvement in the terrain model for a target close to an obstacle**  
AFACAN E., Yazgan E.  
ELECTROMAGNETICS, vol.21, no.4, pp.295-306, 2001 (SCI-Expanded)
- XVI. **A new method for the calculation of Fock scattering functions**  
AFACAN E., Yazgan E.  
MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, vol.21, no.3, pp.223-226, 1999 (SCI-Expanded)
- XVII. **Elliptic cylinder modeling of obstacles for low altitude radar systems**  
AFACAN E., Yazgan E.  
JOURNAL OF ELECTROMAGNETIC WAVES AND APPLICATIONS, vol.13, no.2, pp.237-258, 1999 (SCI-Expanded)
- XVIII. **Beam steering antenna design for low altitude radar systems**  
Saka B., AFACAN E., Yazgan E.  
JOURNAL OF ELECTROMAGNETIC WAVES AND APPLICATIONS, vol.11, no.2, pp.215-224, 1997 (SCI-Expanded)
- XIX. **The effect of loading Gregorian antennas on side-lobe levels**  
AFACAN E., Yazgan E.  
CANADIAN JOURNAL OF PHYSICS, vol.74, pp.685-691, 1996 (SCI-Expanded)

## Articles Published in Other Journals

- I. **Matrix Pencil Method and Singular Value Decomposition Application for DOA Estimation Using**

### **Linear Antenna Array with Multiple Signal Sources**

AYTAŞ N., AFACAN E., İNANÇ N.

International Scientific and Vocational Studies Journal, vol.5, no.2, pp.107-114, 2021 (Peer-Reviewed Journal)

### **II. Simulation of a Homomorphic Encryption System**

Bozduman H. Ç., Afacan E.

APPLIED MATHEMATICS AND NONLINEAR SCIENCES, vol.5, no.1, pp.479-484, 2020 (ESCI)

### **III. Sweeping Effect on Witricity**

Gundogdu A. E., AFACAN E.

INTERNATIONAL JOURNAL OF INTERDISCIPLINARY TELECOMMUNICATIONS AND NETWORKING, vol.4, no.3,

pp.54-64, 2012 (ESCI)

## **Books & Book Chapters**

### **I. Kuyudaki Taş: Kuantum**

Afacan E.

Epos Yayımları, Ankara, 2018

### **II. Kriptografiye Giriş**

Afacan E.

Epos Yayımları, Ankara, 2016

### **III. A Novel Approach for Supplying Wireless Energy to Multiple Devices Using Sweeping Effect**

AŞKIN ERDEM G., AFACAN E.

in: Multidisciplinary Perspectives on Telecommunications Wireless Systems and Mobile Computing, Hu Wen-Chen, Editor, IGI Global, pp.43-58, 2014

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

### **I. Genetik Algoritma ile Genişbant Anten Tasarımı Wideband Array Design with Genetic Algorithm**

Dikdere M. O., Genc Y., Korkmaz N. A., Akkoc A., AFACAN E., Yazgan E.

8th International Conference on Computer Science and Engineering, UBMK 2023, Burdur, Turkey, 13 - 15

September 2023, pp.347-351

### **II. Higher Order Taylor and Golomb Costas Arrays Yüksek Mertebeden Taylor ve Golomb Costas Dizileri**

Gudek M., Genc Y., Korkmaz N. A., Akkoc A., AFACAN E., Yazgan E.

2023 Innovations in Intelligent Systems and Applications Conference, ASYU 2023, Sivas, Turkey, 11 - 13 October 2023

### **III. Elliptic Curve Cryptography for Security in Connected Vehicles Bağlantılı Araçlarda Güvenlik için Eliptik Eğri Kriptografisi**

Genc Y., Habek M., Aytas N., Akkoc A., AFACAN E., Yazgan E.

30th Signal Processing and Communications Applications Conference, SIU 2022, Safranbolu, Turkey, 15 - 18 May 2022

### **IV. Digital Image Encryption Using Elliptic Curve Cryptography: A Review**

Habek M., Genc Y., Aytas N., Akkoc A., AFACAN E., Yazgan E.

4th International Congress on Human-Computer Interaction, Optimization and Robotic Applications, HORA 2022, Ankara, Turkey, 9 - 11 June 2022

### **V. Implementation of New Message Encryption using Elliptic Curve Cryptography over Finite Fields**

Genc Y., AFACAN E.

2021 International Congress of Advanced Technology and Engineering, ICOTEN 2021, Virtual, Online, 4 - 05 July 2021

### **VI. Blockchain based network access control (NAC) management solution and architecture Blokzincir tabanlı ağ erişim kontrol (NAC) çözümü ve mimarisı**

- Korkuc C., Dogantuna V. T., AFACAN E., İŞÇİ BOSTANCI E.  
29th IEEE Conference on Signal Processing and Communications Applications, SIU 2021, Virtual, Istanbul, Turkey, 9 - 11 June 2021
- VII. **The application of matrix pencil method for direction finding using a linear antenna array** **Doğrusal anten dizisi kullanarak yön bulma için matris kalem yönteminin uygulanması**  
Aytas N., AFACAN E., Inanc N.  
29th IEEE Conference on Signal Processing and Communications Applications, SIU 2021, Virtual, Istanbul, Turkey, 9 - 11 June 2021
- VIII. **Identity-based encryption in the internet of things** **Nesnelerin internetinde kimlik tabanlı şifreleme**  
Genc Y., AFACAN E.  
29th IEEE Conference on Signal Processing and Communications Applications, SIU 2021, Virtual, Istanbul, Turkey, 9 - 11 June 2021
- IX. **Design and Implementation of an Efficient Elliptic Curve Digital Signature Algorithm (ECDSA)**  
Genc Y., AFACAN E.  
IEEE International IOT, Electronics and Mechatronics Conference (IEMTRONICS), ELECTR NETWORK, 21 - 24 April 2021, pp.1026-1031
- X. **Matrix Pencil Method for Antenna Arrays**  
AYTAŞ N., AFACAN E., İNANÇ N.  
8th International Conference on Advanced Technologies (ICAT'xx19), Saray-Bosna, Bosnia And Herzegovina, 26 - 30 August 2019
- XI. **Investigation of Planar Frequency Diverse Array Antenna in Concentric Circular Geometry**  
Akkoc A., AFACAN E., Yazgan E.  
11th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 28 - 30 November 2019, pp.651-654
- XII. **Çeşitli Açıklıklara Sahip Kapalı Metalik Kutuların Elektrik Alan Ekranlama Etkinliğinin Tahmini**  
ÇOPUR H., AFACAN E.  
BILMES 2018, Nevşehir, Turkey, 01 October 2018
- XIII. **Investigation of Wave Propagation in a Plasma Antenna using 3D FDTD**  
Avci S. A., AFACAN E.  
13th International Symposium on Electronics and Telecommunications (ISETC), Timisoara, Romania, 8 - 09 November 2018, pp.161-163
- XIV. **Signal and Noise Subspace Decomposition for a Linear Antenna Array Using SVD**  
Aytas N., AFACAN E., İNANÇ N.  
26th IEEE Signal Processing and Communications Applications Conference (SIU), İzmir, Turkey, 2 - 05 May 2018
- XV. **Analysis of Noisy Signals with Subspace Methods**  
AYTAŞ N., TUNA E., AFACAN E.  
I. Uluslararası Bilimsel ve Mesleki Çalışmalar Sempozyumu (BILMES 2017), 5 - 08 October 2017
- XVI. **Analysis of the Incoming Signal on the Antenna Array Using Singular Value Decomposition**  
AYTAŞ N., AFACAN E., TUNA E.  
ISER INTERNATIONAL CONFERENCE, ROMA, Italy, 20 - 21 May 2017
- XVII. **Reconfiguration of Plasma Antenna Using 3D FDTD Method**  
AVCI S. A., AFACAN E.  
Progress in Electromagnetics Research Symposium - Spring (PIERS), St Petersburg, Russia, 22 - 25 May 2017, pp.2644-2647
- XVIII. **A New Search Method for Costas Arrays by Using Difference Triangle Analysis**  
AFACAN E.  
Progress in Electromagnetics Research Symposium - Spring (PIERS), St Petersburg, Russia, 22 - 25 May 2017, pp.456-461
- XIX. **Achievements of Reflectivity Rainfall Rate Conversion Coefficients for 8 Radars of TSMS**  
HAZER A., AFACAN E.  
ERAD 2016 9th European Conference on Radar in Meteorology and Hydrology, 10 - 14 October 2016

- XX. **Müstevi Antena Qefeslerinin Sintezi Metodu**  
BAYRAMOV R., AFACAN E.  
IV International Scientific Conference of Young Researchers, 29 - 30 April 2016
- XXI. **Optimization of Circular Antenna Arrays Using Particle Swarm Optimization**  
Korkuc C., AFACAN E.  
24th Signal Processing and Communication Application Conference (SIU), Zonguldak, Turkey, 16 - 19 May 2016,  
pp.449-452
- XXII. **High Frequency Gaussian Beam Interaction with Plasma Medium**  
AVCI S. A., AFACAN E.  
9th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 26 - 28 November  
2015, pp.958-960
- XXIII. **Usage of Costas Arrays in Low Probability of Intercept Radars**  
Gulec F., AFACAN E.  
23rd Signal Processing and Communications Applications Conference (SIU), Malatya, Turkey, 16 - 19 May 2015,  
pp.347-350
- XXIV. **Evaluation of MUSIC Algorithm with regard to Signal Estimation for Short Wave Links**  
Kutay F., AFACAN E.  
22nd IEEE Signal Processing and Communications Applications Conference (SIU), Trabzon, Turkey, 23 - 25 April  
2014, pp.313-316
- XXV. **Estimation of Direction of Arrival Algorithms**  
Orul T., AFACAN E.  
Progress In Electromagnetics Research Symposium, Stockholm, Sweden, 12 - 15 August 2013, pp.1346-1351
- XXVI. **Sidelobe Level and Sideband Optimization for Thinned Planar Antenna Arrays Using Time  
Modulation**  
AFACAN E.  
7th European Conference on Antennas and Propagation (EuCAP), Gothenburg, Sweden, 8 - 12 April 2013, pp.336-  
338
- XXVII. **The effect of frequency, multi resonator and relay resonator conditions on wireless power  
transmission**  
Gundogdu A. E., AFACAN E.  
11th Annual Wireless Telecommunications Symposium, WTS 2012, London, United Kingdom, 18 - 20 April 2012
- XXVIII. **Some experiments related to wireless power transmission**  
Gündoğdu A. E., AFACAN E.  
2011 Cross Strait Quad-Regional Radio Science and Wireless Technology Conference, CSQRWC 2011, Harbin,  
China, 27 - 30 July 2011, vol.1, pp.507-509
- XXIX. **Zaman Modülasyonlu Doğrusal Dizilerde Yanbant Düzeyi ve Örüntü Sıfırı Kontrolü**  
AKSOY E., AFACAN E.  
IEEE 19. Sinyal İşleme ve İletişim Uygulamaları Kurultayı (SIU'xx2011), Antalya, Turkey, 20 - 22 April 2011, pp.351-  
354
- XXX. **Generalized Representation of Sideband Radiation Power Calculation in Arbitrarily Distributed  
Time-modulated Planar and Linear Arrays**  
Aksoy E., AFACAN E.  
Progress In Electromagnetics Research Symposium, Suzhou, China, 12 - 16 September 2011, pp.368-371
- XXXI. **Sideband Level Suppression Improvement via Splitting Pulses in Time Modulated Arrays under Static  
Fundamental Radiation**  
Aksoy E., AFACAN E.  
Progress In Electromagnetics Research Symposium, Suzhou, China, 12 - 16 September 2011, pp.364-367
- XXXII. **Control of Cell Planning with Fuzzy Logic in GSM System**  
Isik A. H., AFACAN E.  
8th WSEAS International Conference on Telecommunications and Informatics, İstanbul, Turkey, 30 May - 01 June  
2009, pp.101-102

- XXXIII. **Anten Uygulamalarına Yönelik Diferansiyel Evrim Algoritması için Performans Artırımı**  
AKSOY E., AFACAN E.  
5. Elektrik-Elektronik-Bilgisayar Mühendisliği Sempozyumu (ELECO'xx2008), Bursa, Turkey, 26 - 30 November 2008, pp.96-99
- XXXIV. **Pattern Nulling in Linear Arrays with Fewer Elements by Using Differential Evolution Algorithm**  
AKSOY E., AFACAN E.  
5th International Conference on Electrical and Electronics Engineering (ELECO'xx2007), Bursa, Turkey, 5 - 09 December 2007, pp.260-264
- XXXV. **Düzlemsel Anten Dizilerinde Diferansiyel Evrim Algoritması ile Örüntü Sıfırlama**  
AKSOY E., AFACAN E.  
4. Elektrik-Elektronik-Bilgisayar Mühendisliği Sempozyumu (ELECO'xx2006), Bursa, Turkey, 6 - 10 December 2006, pp.77-79
- XXXVI. **Irregular terrain modeling for the low altitude radar applications**  
AFACAN E., SAKA TANATAR B., Yazgan E.  
Proceedings of the 7th Mediterranean Electrotechnical Conference - MELECON. Part 1 (of 3), Antalya, Turkey, 12 - 14 April 1994, vol.2
- XXXVII. **Modeling obstacles as cascaded ellipses**  
AFACAN E., Yazgan E.  
Proceedings of the IEEE Antennas and Propagation International Symposium. Part 3 (of 3), Seattle, WA, USA, 19 - 24 June 1994, vol.3, pp.1878-1880

## Supported Projects

Afacan E., TUBITAK Project, Yüksek Dereceden Costas Dizileri için Veritabanı Oluşturulması ve Analizi, 2016 - 2017

## Activities in Scientific Journals

Journal Of The Faculty Of Engineering And Architecture Of Gazi University, Assistant Editor/Section Editor, 2019 - Continues

## Memberships / Tasks in Scientific Organizations

IEEE, Member, 1991 - Continues, United States Of America  
Elektrik Mühendisleri Odası, Member, 1987 - Continues, Turkey

## Metrics

Publication: 62  
Citation (WoS): 312  
Citation (Scopus): 415  
H-Index (WoS): 9  
H-Index (Scopus): 10

## Invited Talks

Kriptografiye Giriş-Şifreleme Teorisi, Conference, Elektrik Mühendisleri Odası, Turkey, February 2018

## **Awards**

Afacan E., Gürbüz A. S., Erdem S. C., Koçer O., 2242 Üniversite Öğrencileri Araştırma Proje Yarışmaları, Savunma, Uzay ve Havacılık Kategorisi, Ankara Bölge Sergisi, Birincilik Ödülü, Tübitak, June 2019