

## Prof. Fikret TOKAN

### Personal Information

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**Address:** Elektronik ve Haberleşme Müh. Böl. YTÜ Davutpaşa Kampüsü 34220 Esenler İstanbul / TÜRKİYE

### Education Information

Doctorate, Yildiz Technical University, Faculty Of Electrical & Electronics, Elektronik Ve Haberleşme Mühendisliği, Turkey  
2005 - 2010

Postgraduate, Yildiz Technical University, Faculty Of Electrical & Electronics, Elektronik Ve Haberleşme Mühendisliği,  
Turkey 2002 - 2005

Undergraduate, Yildiz Technical University, Faculty Of Electrical & Electronics, Elektronik Ve Haberleşme Mühendisliği,  
Turkey 1998 - 2002

### Foreign Languages

English, B2 Upper Intermediate

### Dissertations

Doctorate, Doğrusal Dizilim Antenlerin Işıma Örüntülerinin Sentezi, Yıldız Teknik Üniversitesi, Elektronik Ve Haberleşme Mühendisliği Bölümü, Elektromagnetik Alanlar Ve Mikrodalga Tekniği, 2010

Postgraduate, Hareketli Cisimlerden Elektromagnetik Dalga Saçılmasının FDTD Yöntemiyle Uzaktan Algılamaya Yönelik Olarak Analizi , Yıldız Teknik Üniversitesi, Elektronik Ve Haberleşme Mühendisliği Bölümü, Elektromagnetik Alanlar Ve Mikrodalga Tekniği, 2005

### Research Areas

Electrical and Electronics Engineering, Electromagnetic, Engineering and Technology

### Academic Titles / Tasks

Professor, Yildiz Technical University, Faculty Of Electrical & Electronics, Electronics And Communication Engineering,  
2022 - Continues

Associate Professor, Yildiz Technical University, Faculty Of Electrical & Electronics, Electronics And Communication Engineering, 2015 - 2022

Assistant Professor, Yildiz Technical University, Faculty Of Electrical & Electronics, Electronics And Communication Engineering, 2014 - 2015

Research Assistant PhD, Yildiz Technical University, Faculty Of Electrical & Electronics, Electronics And Communication Engineering, 2010 - 2014

Research Assistant, Yildiz Technical University, Faculty Of Electrical & Electronics, Electronics And Communication Engineering, 2002 - 2010

## Academic and Administrative Experience

### Courses

#### Postgraduate

Anten Dizilerinin Analizi ve Sentezi, Postgraduate, 2024 - 2025, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020

Anten Dizilerinin Analizi ve Sentezi, Postgraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018

#### Undergraduate

Antenler ve Propagasyon, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

Fiber Optiğe Giriş, Undergraduate, 2023 - 2024, 2022 - 2023, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019

Mühendislik Matematiği, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019

Elektromagnetik Dalga Teorisi, Undergraduate, 2017 - 2018, 2016 - 2017

Elektromagnetik Alan Teorisi, Undergraduate, 2015 - 2016

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

- I. **Impedance Matching Technique with Perforated, Inhomogeneous Layers for Broadband Dielectric Lenses**  
Alçep M., Tokan F.  
IEEE Sensors Journal, vol.21, no.18, pp.20018-20026, 2021 (SCI-Expanded)
- II. **Broadband, Beam-Steering Asymmetric Stacked Microstrip Phased Array with Enhanced Front-to-Back Ratio**  
Tokan F., Türk M.  
Applied Computational Electromagnetics Society Journal, vol.36, no.3, pp.273-281, 2021 (SCI-Expanded)
- III. **A novel, combined reflector antenna design procedure for ultra-wide band planar lens antenna feeds**  
Sönmez N., Tokan F.  
Aeu-International Journal Of Electronics And Communications, vol.132, pp.1-11, 2021 (SCI-Expanded)
- IV. **A novel planar, broadband, high gain lateral wave antenna array for body scanning applications**  
Tokan F., Cavallo D., Neto A.  
JOURNAL OF ELECTRICAL ENGINEERING, vol.71, no.5, pp.308-316, 2020 (SCI-Expanded)
- V. **Influences of Amplitude Tapering and Feed Blockage on the Radiation Characteristics of Ku-Band Parabolic Reflector Antennas**  
Sonmez N. T., TOKAN F.  
APPLIED COMPUTATIONAL ELECTROMAGNETICS SOCIETY JOURNAL, vol.35, no.3, pp.322-330, 2020 (SCI-Expanded)
- VI. **Phase error analysis of displaced-axis dual reflector antenna for satellite earth stations**  
Demirci A., Sonmez N., Tokan F., Tokan N.  
AEU - International Journal of Electronics and Communications, vol.110, 2019 (SCI-Expanded)
- VII. **Double Lens Antennas In Millimeter-Wave Automotive Radar Sensors**  
Sönmez N., Tokan F., Tokan N.  
APPLIED COMPUTATIONAL ELECTROMAGNETICS SOCIETY JOURNAL, vol.32, pp.901-907, 2017 (SCI-Expanded)

- VIII. **The Lateral Wave Antenna**  
Tokan F., Tokan N., Neto A., Cavallo D.  
IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol.62, no.6, pp.2909-2916, 2014 (SCI-Expanded)
- IX. **Optimization-Based Matching Layer Design for Broadband Dielectric Lens Antennas**  
TOKAN F.  
APPLIED COMPUTATIONAL ELECTROMAGNETICS SOCIETY JOURNAL, vol.29, no.6, pp.499-507, 2014 (SCI-Expanded)
- X. **Comparative study on pulse distortion and phase aberration of directive ultra-wideband antennas**  
Tokan N., Neto A., Tokan F., Cavallo D.  
IET MICROWAVES ANTENNAS & PROPAGATION, vol.7, no.12, pp.1021-1026, 2013 (SCI-Expanded)
- XI. **A Simple Synthesis of a High Gain Planar Array Antenna for Volume Scanning Radars**  
Tokan F., Güneş F., Türetken B., Sürmeli K.  
APPLIED COMPUTATIONAL ELECTROMAGNETICS SOCIETY JOURNAL, vol.27, no.3, pp.271-277, 2012 (SCI-Expanded)
- XII. **Mutual Coupling Compensation in Non-Uniform Antenna Arrays using Inter-Element Spacing Restrictions**  
Tokan F., Güneş F.  
APPLIED COMPUTATIONAL ELECTROMAGNETICS SOCIETY JOURNAL, vol.26, no.7, pp.596-602, 2011 (SCI-Expanded)
- XIII. **Amplitude-Only Pattern Synthesis of Nonuniform Linear Arrays Using a Generalized Pattern Search Optimization**  
GÜNEŞ F., Tokan F.  
INTERNATIONAL JOURNAL OF RF AND MICROWAVE COMPUTER-AIDED ENGINEERING, vol.21, no.3, pp.251-262, 2011 (SCI-Expanded)
- XIV. **Interference suppression by optimising the positions of selected elements using generalised pattern search algorithm**  
TOKAN F., GÜNEŞ F.  
IET MICROWAVES ANTENNAS & PROPAGATION, vol.5, no.2, pp.127-135, 2011 (SCI-Expanded)
- XV. **ROC Analysis as a Useful Tool for Performance Evaluation of Artificial Neural Networks**  
Tokan F., Yıldırım T., Türker Tokan N.  
LECTURE NOTES IN ARTIFICIAL INTELLIGENCE, vol.4132, pp.923-931, 2010 (SCI-Expanded)
- XVI. **Pareto optimal synthesis of the linear array geometry for minimum sidelobe level and null control during beam scanning**  
GÜNEŞ F., TOKAN F.  
International Journal of RF and Microwave Computer-Aided Engineering, vol.20, no.5, pp.557-566, 2010 (SCI-Expanded)
- XVII. **Pattern Search optimization with applications on synthesis of linear antenna arrays**  
GÜNEŞ F., Tokan F.  
EXPERT SYSTEMS WITH APPLICATIONS, vol.37, no.6, pp.4698-4705, 2010 (SCI-Expanded)

### Articles Published in Other Journals

- I. **Influence of 3d printing process parameters on the radiation characteristics of dense dielectric lens antennas**  
TOKAN F., DEMİR S., ÇALIŞKAN A.  
Progress In Electromagnetics Research C, vol.116, pp.113-128, 2021 (Scopus)
- II. **The Multi-Objective Optimization of Non-Uniform Linear Phased Arrays Using the Genetic Algorithm**  
Tokan F., Güneş F.  
PROGRESS IN ELECTROMAGNETICS RESEARCH B, vol.17, pp.135-151, 2009 (Scopus)

## Papers Published in Refereed Scientific Meetings

- I. **Perforated Narrow-band Lens Antenna Design**  
Tokan F.  
Seventh International Conference on Radiation in Various Fields of Research (RAD 2019 Conference), Herceg Novi, Montenegro, 10 - 14 June 2019, pp.1-4
- II. **Influence of Astigmatism in Reflector Feeds**  
Tokan F.  
2016 IEEE International Conference on Wireless Information Technology and Systems (ICWITS) and Applied Computational Electromagnetics, Hawaii, United States Of America, 13 - 16 March 2016, pp.1-2
- III. **Dielectric Lens Antenna as Reflector Feeds**  
Tokan F.  
Progress In Electromagnetics Research Symposium PIERS 2015, Praha, Czech Republic, 6 - 09 July 2015, pp.1-2
- IV. **MATCHING LAYER DESIGN PROCEDURE FOR A NOVEL BROADBAND DIELECTRIC LENS ANTENNA**  
Tokan F.  
The International Conference on Electrical and Electronics Engineering, Clean Energy and Green Computing (EEECEGC2013), Dubai, United Arab Emirates, 11 - 13 December 2013, pp.194-198
- V. **Comparison of Pulse Distortion Properties for UWB Antennas**  
Türker Tokan N., Tokan F., Neto A.  
2012 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, Illinois, United States Of America, 8 - 12 July 2012, pp.1-3
- VI. **The Planar Lateral Wave Antenna**  
Tokan F., Türker Tokan N., Neto A.  
2012 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, Illinois, United States Of America, 08 July 2012 - 14 July 2014, pp.1-2
- VII. **Synthesizing a high gain planar array antenna for volume scanning arrays**  
Tokan F., Güneş F.  
Progress In Electromagnetics Research Symposium PIERS 2011, Suizhou, China, 12 - 16 September 2011, pp.1-3
- VIII. **Hacim Tarama Radarları İçin Yüksek Kazançlı Bir Dizi Anten Tasarımı**  
Tokan F., Güneş F., Türetken B., Sürmeli K.  
International Union of Radio Science, Güzelyurt, Cyprus (Kktc), 25 - 27 August 2010, pp.1-5
- IX. **Yalnızca Genelleştirilmiş Patern Arama Algoritması ile Tespit Edilen Antenlerin Pozisyonlarının Optimizasyonu ile Girişim Bastırılması**  
Tokan F., Güneş F.  
Akıllı Sistemlerde Yenilikler ve Uygulamaları Sempozyumu (ASYU), Kayseri, Turkey, 21 - 24 June 2010, pp.1-5
- X. **AMPLITUDE-ONLY PATTERN SYNTHESIS OF NON-UNIFORM LINEAR ARRAY USING A GENERALIZED PATTERN SEARCH OPTIMIZATION**  
Tokan F., Güneş F.  
International Conference on Electrical Engineering (ICEENG), Cairo, Egypt, 25 - 27 May 2010, pp.1-10
- XI. **Efficient Sidelobe Reduction Technique for Linear Antenna Arrays Using Step-function Feeding Systems**  
Tokan F., Güneş F.  
Progress in Electromagnetics Research Symposium (PIERS), Moscow, Russia, 18 - 21 August 2009, pp.481-483
- XII. **PATTERN SEARCH OPTIMIZATION WITH APPLICATIONS ON SYNTHESIS OF LINEAR ANTENNA ARRAYS**  
Tokan F., Güneş F.  
INISTA 2009 International Symposium on INnovations in Intelligent SysTems and Applications, Trabzon, Turkey, 29 June - 01 July 2009, pp.1-3
- XIII. **Synthesis of Multi-beam Uniform Linear Antenna Arrays Using Psearch Algorithm**  
Tokan F., Güneş F.  
Progress in Electromagnetics Research Symposium (PIERS), Beijing, China, 23 - 27 March 2009, pp.195-196

- XIV. **Comparative Performance of Genetically Initialized Pattern Search Optimization Versus Particle Swarm Optimization Algorithm of Adaptive Beam Forming with the Linear Antenna Array Geometry**  
TOKAN F., Özkaya U., GÜNEŞ F.  
Progress In Electromagnetics Research Symposium, Cambridge, United States Of America, 02 July 2008, pp.1-4
- XV. **A Neural Network Model for Phased Antenna Arrays**  
TOKAN F., GÜNEŞ F., Bardak B.  
Progress In Electromagnetics Research Symposium (PIERS 2007), Prag, Czech Republic, 27 August 2007, pp.1-4
- XVI. **A CAD Model for Phased Antenna Arrays Using Neural Networks**  
Tokan F., Güneş F., Bardak B.  
International Symposium on Innovations in Intelligent Systems and Applications (INISTA), İstanbul, Turkey, 01 June 2007, pp.1-5
- XVII. **Determination of the neural network performances in the medical prognosis by roc analysis** **Tıbbi tahmin alanında kullanılan yapay sinir ağlarının performanslarının roc analizi ile belirlenmesi**  
TOKAN F., Türker N., YILDIRIM T.  
2006 IEEE 14th Signal Processing and Communications Applications, Antalya, Turkey, 17 - 19 April 2006, vol.2006
- XVIII. **The Scattering of Electromagnetic Waves From Walking Man Body Sectors by Using FDTD**  
Sakça H., Şengör T., Tokan F.  
IEEE Antennas and Propagation Society International Symposium (AMEREM), New Mexico, United States Of America, 01 July 2006, pp.50-51
- XIX. **Biyolojik hedeflerin davranışının hedeften saçılan elektromagnetik dalgalar yoluyla uzaktan belirlenmesi**  
Şengör T., Ermişoğlu E., Sakça H., Tokan F.  
Savunma Teknolojileri Kongresi (SAVTEK), Ankara, Turkey, 01 June 2006, pp.665-666
- XX. **Tıbbi tahmin alanında kullanılan yapay sinir ağlarının performanslarının ROC analizi ile belirlenmesi**  
Tokan F., Türker Tokan N., Yıldırım T.  
IEEE 14. Sinyal İşleme ve İletişim Uygulamaları Kurultay, Antalya, Turkey, 17 - 19 April 2006
- XXI. **ROC analysis as a useful tool for performance evaluation of artificial neural networks**  
TOKAN F., Türker N., YILDIRIM T.  
16th International Conference on Artificial Neural Networks, ICANN 2006, Athens, Greece, 10 - 14 September 2006, pp.923-931
- XXII. **The Evolution of Scattered Electromagnetic Waves From Walking Human Legs by FDTD Method**  
Tokan F., Şengör T.  
4th International Conference on Electrical and Electronics Engineering (ELECO), Bursa, Turkey, 01 December 2005, pp.222-226
- XXIII. **Ekokardiyogram verilerinin yapay sinir ağları ile değerlendirilmesi**  
TOKAN F., TÜRKER TOKAN N., YILDIRIM T.  
BİYOMUT 2005 Biyomedikal Mühendisliği Ulusal Toplantısı, Turkey, 1 - 06 August 2005
- XXIV. **Kalp hastalığı teşhisinde yapay sinir ağlarının performansının ROC analizi ile belirlenmesi**  
TÜRKER TOKAN N., TOKAN F., YILDIRIM T.  
BİYOMUT 2005 Biyomedikal Mühendisliği Ulusal Toplantısı, Turkey, 1 - 06 August 2005

## Supported Projects

TOKAN F., YAMAÇ Y. E., ÇALIŞKAN A., Project Supported by Higher Education Institutions, Yakın Mesafe Otomotiv Radarı için Lens Anten Dizisi Tasarımı, 2021 - 2024

TOKAN F., ALPARSLAN A., TÜRKER TOKAN N., Project Supported by Higher Education Institutions, Ultra Geniş Bantta Çalışan Dielektrik Lens Anten Dizisi ve Dizinin Besleme Yapısı Tasarımı, 2017 - 2020

TÜRKER TOKAN N., TOKAN F., ALDIRMAZ ÇOLAK S., Project Supported by Higher Education Institutions, İleri Haberleşme Teknolojileri için MIMO Sistem Tasarımı, 2017 - 2019

Türker Tokan N., Tokan F., TÜBİTAK International Bilateral Joint Cooperation Program Project, Otomotiv Radar

Uygulamaları İçin Çoklu Lens Anten Tasarımı, 2013 - 2015

TOKAN F., Advanced Antenna Architectures for THZ Sensing Instruments, 2011 - 2015

TOKAN F., Project Supported by Higher Education Institutions, Bağlantılı Anten Dizilerinin Geniş Bant Uygulamaları İçin Analizi ve Tasarımı, 2011 - 2013

Tokan F., Güneş F., Türker Tokan N., TUBITAK Project, Mikrodalga Uygulamalarında Destek Vektör Makineleri, 2009 - 2012

## **Peer Reviews in Scientific Publications**

IEEE Transactions on Antennas and Propagation, SCI Journal, January 2011

IEEE Antennas and Wireless Propagation Letters, SCI Journal, January 2011

The Applied Computational Electromagnetics Society (ACES), SCI Journal, January 2011

## **Metrics**

Publication: 43

Citation (WoS): 78

Citation (Scopus): 118

H-Index (WoS): 5

H-Index (Scopus): 5

## **Non Academic Experience**

University, University of Rennes, Institute of Electronics and Digital Technologies, Araştırmacı

University, Technical University of Delft, Department of Microelectronics, Araştırmacı