

## Dr. BAHATTİN TÜRETKEN

### Personal Information

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### International Researcher IDs

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### Education Information

Doctorate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Elektronik ve Haberleşme Mühendisliği, Turkey 1998 - 2002

Postgraduate, Istanbul Technical University, Fen Bilimleri Enstitüsü, Elektronik ve Haberleşme Mühendisliği, Turkey 1995 - 1998

Undergraduate, Yildiz Technical University, Faculty Of Electrical & Electronics, Electronics And Communication Engineering, Turkey 1991 - 1995

### Research Areas

Engineering and Technology

### Academic Titles / Tasks

Professor, Kocaeli University, Mühendislik Fakültesi, Elektronik Ve Haberleşme Mühendisliği, 2019 - Continues

Professor, Karabuk University, -, 2014 - 2019

Associate Professor, Yeditepe University, Faculty Of Engineering-Architecture, Department Of Electrical And Electronics Engineering, 2011 - 2013

Research Assistant, Ataturk University, Mühendislik Fakültesi, 1995 - 1998

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

- I. **Compact and planar WCDMA/WLAN/UWB antenna with shorted loop and monopole elements**  
Yildirim B. S., Başaran E., Türetken B.  
Applied Computational Electromagnetics Society Journal, vol.31, no.3, pp.288-293, 2016 (Journal Indexed in SCI)
- II. **A Novel 2-18-GHz Double-Ridged Horn Antenna with an Improved Feed Section Design**  
Isenlik T., Basaran E., Turetken B.  
ELECTROMAGNETICS, vol.35, no.3, pp.145-154, 2015 (Journal Indexed in SCI)
- III. **A COMPACT DESIGN OF A WIDEBAND THREE LAYER U-SLOT STACKED PATCH ANTENNA**  
Surmeli K., Basaran E., Aksoy S., SALMAN A. O.  
MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, vol.57, no.3, pp.727-729, 2015 (Journal Indexed in SCI)

- IV. **Spherical conformal bow-tie antenna for ultra-wide band microwave imaging of breast cancer tumor**  
 Ünal I., Türetken B., Canbay C.  
 Applied Computational Electromagnetics Society Journal, vol.29, no.2, pp.124-133, 2014 (Journal Indexed in SCI)
- V. **Dielectric-Loaded Compact WLAN/WCDMA Antenna With Shorted Loop and Monopole Elements**  
 Yildirim B., Basaran E., Turetken B.  
 IEEE ANTENNAS AND WIRELESS PROPAGATION LETTERS, vol.12, pp.288-291, 2013 (Journal Indexed in SCI)
- VI. **A simple synthesis of a high gain planar array antenna for volume scanning radars**  
 TOKAN F., GÜNEŞ F., Turetken B., Surmeli K.  
 Applied Computational Electromagnetics Society Journal, vol.27, no.3, pp.271-277, 2012 (Journal Indexed in SCI)
- VII. **An Improved Design of Planar Elliptical Dipole Antenna for UWB Applications**  
 Nazli H., Bicak E., Turetken B., Sezgin M.  
 IEEE ANTENNAS AND WIRELESS PROPAGATION LETTERS, vol.9, pp.264-267, 2010 (Journal Indexed in SCI)
- VIII. **Experimental and numerical analysis of the coupling mechanism of HF antenna located on shipboard**  
 Turetken B., Ustuner F., Demirel E., Baran E.  
 INTERNATIONAL JOURNAL OF APPLIED ELECTROMAGNETICS AND MECHANICS, vol.27, pp.153-159, 2008  
 (Journal Indexed in SCI)
- IX. **Analysis of dielectric loaded scalar horn radiators**  
 Türetken B.  
 Applied Computational Electromagnetics Society Journal, vol.22, no.3, pp.388-394, 2007 (Journal Indexed in SCI)
- X. **Numerical and experimental study of F-4 aircraft antenna patterns**  
 Turetken B., Ustuner F., Dagdeviren A.  
 INTERNATIONAL JOURNAL OF ELECTRONICS, vol.94, no.3, pp.293-301, 2007 (Journal Indexed in SCI)
- XI. **Mutual coupling between monopoles on F-4 aircraft at transition frequencies: A comparison between MoM and MoM/UTD hybrid method at UHF band**  
 Dagdeviren A., Cerezci O., Ustuner F., Turetken B.  
 APPLIED COMPUTATIONAL ELECTROMAGNETICS SOCIETY JOURNAL, vol.21, no.2, pp.111-114, 2006 (Journal Indexed in SCI)
- XII. **Rigorous analysis of wide beam scalar feed horns with different impedance internal surfaces**  
 Turetken B.  
 ELECTROMAGNETICS, vol.26, no.5, pp.359-385, 2006 (Journal Indexed in SCI)
- XIII. **An alternative method for determining the antenna factor of a monopole**  
 Turetken B.  
 APPLIED COMPUTATIONAL ELECTROMAGNETICS SOCIETY JOURNAL, vol.20, no.3, pp.231-234, 2005 (Journal Indexed in SCI)
- XIV. **Plane wave diffraction by impedance planar surfaces with a step discontinuity**  
 Turetken B., Yildirim O.  
 ELECTROMAGNETICS, vol.24, no.8, pp.623-635, 2004 (Journal Indexed in SCI)
- XV. **Radiation of sound waves from a rigid stepped cylindrical waveguide**  
 Türetken B., Büyükaksoy A., Demir A.  
 Journal of Engineering Mathematics, vol.46, no.1, pp.33-54, 2003 (Journal Indexed in SCI)
- XVI. **Plane wave diffraction by a dielectric loaded open parallel thick plate waveguide**  
 Türetken B., Alkumru A.  
 Turkish Journal of Electrical Engineering and Computer Sciences, vol.10, no.3, pp.439-448, 2002 (Journal Indexed in SCI Expanded)
- XVII. **Plane wave diffraction by an open parallel plate waveguide with dielectric loading**  
 Turetken B., Alkumru A.  
 Mathematical and Computational Applications, vol.4, no.1, pp.241-249, 1999 (Journal Indexed in SCI Expanded)

## Articles Published in Other Journals

- I. **Diffraction from a grating on a chiral medium: Application of analytical regularization method**  
Panin S. B. , Turetken B., Poyedinchuk A. Y. , Tuchkin Y. A.  
Progress In Electromagnetics Research B, no.59, pp.19-29, 2014 (Refereed Journals of Other Institutions)
- II. **U Slot Stacked Patch Antenna using high and low dielectric constant material combination in S Band**  
TÜRETKEN B., Surmeli K.  
General Assembly and Scientific Symposium, 2011 (Refereed Journals of Other Institutions)
- III. **Reconfigurable fractal tree antenna for multiband applications**  
altun h., Korkmaz E., TÜRETKEN B.  
General Assembly and Scientific Symposium, pp.1-4, 2011 (Refereed Journals of Other Institutions)
- IV. **Design and realization of printed LPDA in UHF band**  
TÜRETKEN B.  
Mathematical Methods in Electromagnetic Theory, 2004 (Refereed Journals of Other Institutions)

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

- I. **Microwave Imaging of Breast Cancer Tumor Using Vivaldi Antenna**  
Ünal i., TÜRETKEN B.  
COMPUTATIONAL METHODS AND TELECOMMUNICATION IN ELECTRICAL ENGINEERING AND FINANCE, Sarejova, Bosnia And Herzegovina, 6 - 09 May 2018, vol.1, pp.26-27
- II. **Design of An Implantable Antenna for ISM and WMTS Band Biomedical Applications**  
Hasen Ahmed M. A. W. , TÜRETKEN B., Ünal i.  
COMPUTATIONAL METHODS AND TELECOMMUNICATION IN ELECTRICAL ENGINEERING AND FINANCE, Sarajevo, Bosnia And Herzegovina, 6 - 09 May 2018, vol.1, pp.58-59
- III. **Türk Teknolojisi ama Nasıl**  
TÜRETKEN B.  
TC Basbakanlık Yurt Dışı Türkler -Sehirder -Turkiye Bursları, 06 November 2016
- IV. **Yeni Türkiye nin Teknoloji Hedefleri**  
TÜRETKEN B.  
Uluslararası Bilim ve Teknoloji Konferansı, 3 - 06 October 2016, vol.22, pp.349-350
- V. **Yeni Türkiye ve Elektronik Harp**  
TÜRETKEN B.  
EEB2016, Turkey, 11 - 13 May 2016
- VI. **Türkiyenin Teknolojik Atılımları ve 2023 Vizyonu Liderin Rolü**  
TÜRETKEN B.  
Uluslararası Recep Tayyip Erdoğan Sempozyumu, 27 - 28 March 2016, vol.1, pp.107-111
- VII. **Microwave imaging of breast cancer tumor inside voxel-based breast phantom using conformal antennas**  
Ünal I., Türetken B., Çotur Y.  
31st General Assembly and Scientific Symposium of the International Union of Radio Science, URSI GASS 2014, Beijing, China, 16 - 23 August 2014
- VIII. **Custom gland and skin tissue phantom fabrication for use in breast cancer detection research studies**  
Sayinti A., Türetken B., Açikalin E., Çoban K., Eroğlu H.  
31st General Assembly and Scientific Symposium of the International Union of Radio Science, URSI GASS 2014, Beijing, China, 16 - 23 August 2014
- IX. **Analysis of dispersive effects of breast phantom model on ultra wideband microwave imaging of breast cancer tumor**  
Ünal I., Türetken B., Buluş U., Canbay C.  
10th IASTED International Conference on Biomedical Engineering, BioMed 2013, Innsbruck, Austria, 13 - 15 February 2013, pp.401-406

- X. **Analysis of the electromagnetic field scattered by a spherical breast tumour model**  
Unal I, Turetken B., Bulus U., Canbay C.  
2013 21st International Symposium on Electromagnetic Theory, EMTS 2013, Hiroshima, Japan, 20 - 24 May 2013, pp.574-577
- XI. **Analysis of vibration effects on surface matched cylindrical IFF array antenna**  
Turetken B., Celik M.  
2013 7th European Conference on Antennas and Propagation, EuCAP 2013, Gothenburg, Sweden, 8 - 12 April 2013, pp.2731-2735
- XII. **DETECTION OF HIDDEN METALLIC TARGETS BY RADIOMETRIC SYSTEM AND LOW ABERRATION LENS DESIGN**  
Panin S. B. , Tekbas M., Turetken B.  
International Kharkov Symposium on Physics and Engineering of Microwaves, Millimeter and Submillimeter Waves (MSMW), Kharkiv, Ukraine, 23 - 28 June 2013, pp.91-93
- XIII. **Millimeter Wave Detection of Landmines**  
Ozturk H., Nazli H., Yegin K., Bicak E., Sezgin M., Dag M., SALMAN A. O.  
Conference on Detection and Sensing of Mines, Explosive Objects, and Obscured Targets XVIII, Maryland, United States Of America, 29 April - 02 May 2013, vol.8709
- XIV. **A Novel Ultra Wideband horn feed for parabolic reflector antennas**  
Isenlik T, Başaran E., Turetken B.  
2012 IEEE International Conference on Ultra-Wideband, ICUWB 2012, Syracuse, NY, United States Of America, 17 - 20 September 2012, pp.513-517
- XV. **Development of a hyperthermia applicator with compact microstrip antennas**  
Isik O, Korkmaz E., Kara S., Nassor M. A. , Turetken B.  
Joint 2012 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, APSURSI 2012, Chicago, IL, United States Of America, 8 - 14 July 2012
- XVI. **Design of compact microstrip antennas embedded in water bolus for hyperthermia applications**  
Korkmaz E., Nassor M. A. , Kara S., Isik O., Turetken B.  
Joint 2012 IEEE International Symposium on Antennas and Propagation and USNC-URSI National Radio Science Meeting, APSURSI 2012, Chicago, IL, United States Of America, 8 - 14 July 2012
- XVII. **Simulation of a conformal reconfigurable fractal tree antenna with adaptive multi beam and frequency characteristics**  
Altun H., Korkmaz E., Turetken B.  
Progress in Electromagnetics Research Symposium, PIERS 2011 Suzhou, Suzhou, China, 12 - 16 September 2011, pp.619-623
- XVIII. **U-slot stacked patch antenna using high and low dielectric constant material combinations in S-band**  
Sürmeli K., Turetken B.  
2011 30th URSI General Assembly and Scientific Symposium, URSIGASS 2011, İstanbul, Turkey, 13 - 20 August 2011
- XIX. **An experimental microwave imaging system for breast tumor detection on layered phantom model**  
Ünal I, Turetken B., Sürmeli K., Canbay C.  
2011 30th URSI General Assembly and Scientific Symposium, URSIGASS 2011, İstanbul, Turkey, 13 - 20 August 2011
- XX. **Design and realization of ultra wide-band implant antenna for biotelemetry systems**  
Zengin F., Akkaya E., Turetken B., San S. E.  
2011 30th URSI General Assembly and Scientific Symposium, URSIGASS 2011, İstanbul, Turkey, 13 - 20 August 2011
- XXI. **Analyzing of the feed line and the shroud effects on a reflector antenna performance**  
Gürcan M. E. , Başaran E., Turetken B.  
2011 30th URSI General Assembly and Scientific Symposium, URSIGASS 2011, İstanbul, Turkey, 13 - 20 August 2011
- XXII. **Antenna arrangement considerations for microwave hyperthermia applications**

Işık Ö., Korkmaz E., Türetken B.

2011 30th URSI General Assembly and Scientific Symposium, URSIGASS 2011, İstanbul, Turkey, 13 - 20 August 2011

**XXIII. Design of a Broadband Microstrip Antenna with Artificial Magnetic Conductor Ground Plane**

Çekingen M., IŞIK C., TÜRETKEN B.

ELECO 2011 7th International Conference on Electrical and Electronics Engineering, 1 - 03 October 2011

**XXIV. Ultra wideband antenna design for implant applications Ekit (implant) uygulamalari için geniş bantli anten tasarimi**

Zengin F., Türetken B., Akkaya E., San S. E.

2010 15th National Biomedical Engineering Meeting, BIYOMUT2010, Antalya, Turkey, 21 - 24 April 2010

**XXV. EMI/EMC analysis of shipboard HF antenna by moment method**

Turetken B., Ustuner F., Demirel E., Dagdeviren A.

11th International Conference on Mathematical Methods in Electromagnetic Theory, MMET'06, Kharkiv, Ukraine, 26 - 29 June 2006, pp.350-352

**XXVI. High frequency diffraction of cylindrical waves by perfectly conducting successive step discontinuities**

Türetken B., Alkumru A., Büyükaksoy A., Kuştepelı A.

11th International Conference on Mathematical Methods in Electromagnetic Theory, MMET'06, Kharkiv, Ukraine, 26 - 29 June 2006, pp.523-525

**XXVII. A study of the blockage effects on the pattern of ship mounted X-band communication antennas**

Dagdeviren A., Cerezci O., Turetken B.

11th International Conference on Mathematical Methods in Electromagnetic Theory, MMET'06, Kharkiv, Ukraine, 26 - 29 June 2006, pp.353-355

**XXVIII. Coupling on complex platforms: A comparison between MoM and MoM/UTD hybrid method**

Dagdeviren A., Cerezci O., Ustuner F., Turetken B., Kahrıman M.

11th International Conference on Mathematical Methods in Electromagnetic Theory, MMET'06, Kharkiv, Ukraine, 26 - 29 June 2006, pp.276-278

**XXIX. Monopole antenna calibration in GTEM cell**

Turetken B.

10th International Conference on Mathematical Methods in Electromagnetic Theory, Dnepropetrovsk, Ukraine, 14 - 17 September 2004, pp.298-300

**XXX. Design and realization of Printed LPDA at UHF band**

Turetken B.

10th International Conference on Mathematical Methods in Electromagnetic Theory, Dnepropetrovsk, Ukraine, 14 - 17 September 2004, pp.295-297

**XXXI. Design and realization of an L-Band helical antenna**

Turetken B., Yurekli A., Yazici M.

IEEE International Symposium on Electromagnetic Compatibility (EMC), İstanbul, Turkey, 11 - 16 May 2003, pp.143-145

**XXXII. Calculation of leakage through apertures on coaxial cable braided screens**

Colak B., Qerezci O., Demir Z., Yazici M., SALMAN A. O. , Araz I.

International Conference on Mathematical Methods in Electromagnetic Theory (MMET 02), KIEV, Ukraine, 10 - 13 September 2002, pp.473-475

**XXXIII. Evaluation of uncertainty budget for antenna calibrations**

Turetken B., San S. E. , Yazici M., Araz I., Yurekli A., Hekim M.

International Conference on Mathematical Methods in Electromagnetic Theory (MMET 02), KIEV, Ukraine, 10 - 13 September 2002, pp.455-457

**XXXIV. A new numerical approach to electromagnetics: Finite-analytic method**

Utku C., Turetken B.

International Conference on Mathematical Methods in Electromagnetic Theory (MMET 2000), Kharkiv, Ukraine, 12 - 15 September 2000, pp.667-669

**XXXV. Comparison of symbolic computation techniques for problems in electromagnetics**

Turetken B., San S. E.

International Conference on Mathematical Methods in Electromagnetic Theory (MMET 2000), Kharkiv, Ukraine, 12  
- 15 September 2000, pp.172-174

**Metrics**

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