Prof. ÖZLEM ÖZGÜN

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International Researcher IDs
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Education Information

Post Doctorate, Pennsylvania State University, Electrical Engineering Department, Electromagnetic Communication Lab, United States Of America 2007 - 2008
Doctorate, Middle East Technical University, Faculty Of Engineering, Department Of Electrical And Electronics Engineering, Turkey 2002 - 2007
Postgraduate, Ihsan Dogramaci Bilkent University, Faculty Of Engıneerıng, Department Of Electrıcal And Electronıcs Engıneerıng, Turkey 1998 - 2001
Undergraduate, Ihsan Dogramaci Bilkent University, Faculty Of Engıneerıng, Department Of Electrıcal And Electronıcs Engıneerıng, Turkey 1993 - 1998

Dissertations

Doctorate, Finite element modeling of electromagnetic radiation/scattering problems by domain decomposition, Middle East Technical University, Graduate School Of Natural And Applied Sciences, Graduate School Of Natural And Applied Sciences, 2007
Postgraduate, Dual-frequency operation of probe-fed rectangular microstrip antennas with slots: Analysis and design, Ihsan Dogramaci Bilkent University, Faculty Of Engıneerıng, Department Of Electrıcal And Electronıcs Engıneerıng, 2001

Research Areas

Electrical and Electronics Engineering, Electromagnetic, Electromagnetic Waves, Antennas and Propagation, Engineering and Technology

Academic Titles / Tasks

Professor, Hacettepe University, Mühendislik Fakültesi, Elektrik ve Elektronik Bölümü, 2018 - Continues
Associate Professor, Hacettepe University, Mühendislik Fakültesi, Elektrik ve Elektronik Bölümü, 2015 - 2018
Associate Professor, Ted University, Faculty Of Engıneerıng-Archıtecture, Department Of Electrıcal And Electronıcs Engıneerıng, 2012 - 2015
Assistant Professor, Middle East Technical University, Odtu Kuzey Kıbrıs Kampusu (Kktc-Güzelyurt), Elektrik-Elektronik

Mühendisliği Bölümü, 2008 - 2012

Academic and Administrative Experience

Head of Department, Hacettepe University, Mühendislik Fakültesi, Elektrik ve Elektronik Bölümü, 2021 - Continues
Vice Dean, Hacettepe University, Mühendislik Fakültesi, Elektrik ve Elektronik Bölümü, 2021 - Continues
Deputy Head of Department, Hacettepe University, Mühendislik Fakültesi, Elektrik ve Elektronik Bölümü, 2017 - 2020
Fakülte Yönetim Kurulu Üyesi, Hacettepe University, Mühendislik Fakültesi, Elektrik ve Elektronik Bölümü, 2016 - 2018

Courses

Analytical Methods in Electromagnetics, Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020
Graduation Project I, Undergraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017
Computational Methods in Electromagnetics, Postgraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2015 - 2016
Graduation Project II, Undergraduate, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017
Special Topics, Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016
Antennas and Propagation, Undergraduate, 2020 - 2021, 2018 - 2019, 2016 - 2017
Seminar, Postgraduate, 2021 - 2022, 2020 - 2021, 2019 - 2020, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016
Electromagnetics I, Undergraduate, 2020 - 2021, 2018 - 2019, 2017 - 2018, 2016 - 2017, 2015 - 2016, 2014 - 2015
Electromagnetics II, Undergraduate, 2019 - 2020, 2017 - 2018, 2015 - 2016
Electromagnetic Wave Propagation, Postgraduate, 2018 - 2019, 2016 - 2017, 2015 - 2016
Electromagnetic Wave Theory II, Postgraduate, 2017 - 2018
Special Topics in Electromagnetics, Postgraduate, 2016 - 2017, 2014 - 2015

Advising Theses

Özgün Ö., IMAGING OF COMPLEX TARGETS BY MACHINE LEARNING BASED INVERSE SYNTHETIC APERTURE RADAR TECHNIQUE, Postgraduate, G.EKEN(Student), 2023
Özgün Ö., Numerical Modeling of Electromagnetic Wave Scattering from an Object Buried Under Rough Earth Surface, Postgraduate, B.Bural(Student), 2021
Özgün Ö., Computation of the Radar Cross Section of 3 Dimensional Objects by Physical Optics Method, Postgraduate, I.Özlem(Student), 2021
Özgün Ö., Development of a Web-Based Software Tool for Outdoor Path Loss Modeling in 5G Systems, Postgraduate, C.Barış(Student), 2021
Özgün Ö., Bir radar hedef ortam simülatörü için rastgele pürüzlü dünya yüzeyi üzerinde elektromanyetik dalga saçılımının modellenmesi, Postgraduate, M.FATİH(Student), 2020
Özgün Ö., Eş akılı ışıma örüntüsüne sahip yansıtıcı dizi anten tasarımı ve modellenmesi, Postgraduate, S.KÖSE(Student), 2019
Özgün Ö., Dünya yüzeyi üzerindeki bir hedeften elektromanyetik saçılımın modellenmesi için karma nümerik yöntemlerin geliştirilmesi, Postgraduate, G.YESA(Student), 2019
Özgün Ö., Radyo dalgası yayılımı modellemesi için çoklu engel kırınım yöntemlerinin geliştirilmesi ve karşılaştırmalı analizi, Postgraduate, N.DİCLE(Student), 2019
Özgün Ö., Elektromanyetik dalga yayılımının çift yönlü parabolik dalga modellemesi için buharlaşma oluk algoritmalarının geliştirilmesi, Postgraduate, M.EREN(Student), 2018
Özgün Ö., Dönüşüm elektromanyetiği kavramına dayanan radar kesit alanı azaltma tekniklerinin geliştirilmesi, Postgraduate, C.PAY(Student), 2018

Özgün Ö., Kuzuoğlu M., Finite element modeling of scattering from objects in rectangular waveguides, Postgraduate, H.GÜLBAŞ(Student), 2017

Özgün Ö., Kuzuoğlu M., Monte Carlo analysis of the effects of material and shape uncertainties on radar cross section by the finite difference time domain method, Postgraduate, A.KEMAL(Student), 2013

Özgün Ö., Kuzuoğlu M., Investigation of rough surface scattering of electromagnetic waves using finite element method, Postgraduate, Ö.EMRE(Student), 2013

Published journal articles indexed by SCI, SSCI, and AHCI

I. **A group theory based topology optimization scheme for the design of inhomogeneous waveguides with dihedral group symmetries**
Chu P., Li Y., He Z., Li E., Özgün Ö., Vandenbosch G. A., Zheng X.
ENGINEERING ANALYSIS WITH BOUNDARY ELEMENTS, vol.166, pp.1-17, 2024 (SCI-Expanded)

II. **Self-Tuning Locally-Conformal PML Mesh Truncation for 3D Vector Finite Element Method**
Özgün Ö., Kuzuoğlu M., Mittra R.
IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol.71, no.11, pp.1-5, 2024 (SCI-Expanded)

III. **Parametrization-free locally-conformal perfectly matched layer method for finite element solution of Helmholtz equation**
ÖZGÜN Ö., KUZUOĞLU M., Beriot H., Mittra R.
Computer Physics Communications, vol.288, 2023 (SCI-Expanded)

IV. **Physics-based modeling of sea clutter phenomenon by a full-wave numerical solver**
ÖZGÜN Ö., KUZUOĞLU M.
WAVE MOTION, vol.109, 2022 (SCI-Expanded)

V. **RTPLTool: a software tool for path loss modeling in 5G outdoor systems**
Findik C. B., ÖZGÜN Ö.
Turkish Journal of Electrical Engineering and Computer Sciences, vol.30, no.6, pp.2385-2397, 2022 (SCI-Expanded)

VI. **A hybrid numerical model for long-range electromagnetic wave propagation**
Altun G. Y., Özgün Ö.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.29, no.7, pp.3225-3239, 2021 (SCI-Expanded)

VII. **PETOOL v2.0: Parabolic Equation Toolbox with evaporation duct models and real environment data**
Özgün Ö., Sahin V., Erguden M. E., Apaydin G., Yılmaz A. E., Kuzuoğlu M., Sevgi L.
COMPUTER PHYSICS COMMUNICATIONS, vol.256, 2020 (SCI-Expanded)

VIII. **A novel CEM technique for modeling electromagnetic scattering from metasurfaces**
ÖZGÜN Ö., Mittra R., KUZUOĞLU M.
INTERNATIONAL JOURNAL OF NUMERICAL MODELLING-ELECTRONIC NETWORKS DEVICES AND FIELDS, vol.33, no.2, 2020 (SCI-Expanded)

IX. **A Domain Decomposition Finite-Element Method for Modeling Electromagnetic Scattering From Rough Sea Surfaces With Emphasis on Near-Forward Scattering**
ÖZGÜN Ö., KUZUOĞLU M.
IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol.67, no.1, pp.335-345, 2019 (SCI-Expanded)

X. **Coordinate transformation aided finite element method for contour detection of breast tumors in microwave imaging**
ÖZGÜN Ö., KUZUOĞLU M.
INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN BIOMEDICAL ENGINEERING, vol.34, no.10, 2018 (SCI-Expanded)

XI. **Modeling of Diffraction Effects in Urban Radiowave Propagation**
ÖZGÜN Ö.
APPLIED COMPUTATIONAL ELECTROMAGNETICS SOCIETY JOURNAL, vol.32, no.7, pp.593-599, 2017 (SCI-Expanded)

XII. **Finite Element Modeling of Fringe Fields in Wedge Diffraction Problem**
ÖZGÜN Ö., Sevgi L.
IEEE ANTENNAS AND WIRELESS PROPAGATION LETTERS, vol.16, pp.369-372, 2017 (SCI-Expanded)

XIII. **Remesh-Free Shape Optimization by Transformation Optics**
ÖZGÜN Ö., KUZUOĞLU M.
IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol.64, no.12, pp.5479-5482, 2016 (SCI-Expanded)

XIV. **New Software Tool (GO plus UTD) for Visualization of Wave Propagation**
ÖZGÜN Ö.
IEEE ANTENNAS AND PROPAGATION MAGAZINE, vol.58, no.3, pp.91-92, 2016 (SCI-Expanded)

XV. **Implementation of coordinate transformations in periodic finite-element method for modeling rough surface scattering problems**
ÖZGÜN Ö., KUZUOĞLU M.
INTERNATIONAL JOURNAL OF RF AND MICROWAVE COMPUTER-AIDED ENGINEERING, vol.26, no.4, pp.322-329, 2016 (SCI-Expanded)

XVI. **Monte Carlo simulations of Helmholtz scattering from randomly positioned array of scatterers by utilizing coordinate transformations in finite element method**
ÖZGÜN Ö., KUZUOĞLU M.
WAVE MOTION, vol.56, pp.165-182, 2015 (SCI-Expanded)

XVII. **Double-Tip Diffraction Modeling: 2-D Numerical Models versus High-Frequency Asymptotics**
ÖZGÜN Ö., Sevgi L.
IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol.63, no.6, pp.2686-2693, 2015 (SCI-Expanded)

XVIII. **VectGUI: A MATLAB-Based Simulation Tool**
ÖZGÜN Ö., Sevgi L.
IEEE ANTENNAS AND PROPAGATION MAGAZINE, vol.57, no.3, pp.113-118, 2015 (SCI-Expanded)

XIX. **Approximation of transformation media-based reshaping action by genetic optimization**
Ozgun O., KUZUOĞLU M.
APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, vol.117, no.2, pp.597-604, 2014 (SCI-Expanded)

XX. **Combining perturbation theory and transformation electromagnetics for finite element solution of Helmholtz-type scattering problems**
KUZUOĞLU M., Ozgun O.
JOURNAL OF COMPUTATIONAL PHYSICS, vol.274, pp.883-897, 2014 (SCI-Expanded)

XXI. **Comments on "Propagation Modeling Over Irregular Terrain by the Improved Two-Way Parabolic Equation Method"**
Ozgun Ö., APAYDIN G., KUZUOĞLU M., Sevgi L.
IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol.62, no.7, pp.3894, 2014 (SCI-Expanded)

XXII. **A coordinate transformation approach for efficient repeated solution of Helmholtz equation pertaining to obstacle scattering by shape deformations**
Ozgun O., KUZUOĞLU M.
COMPUTER PHYSICS COMMUNICATIONS, vol.185, no.6, pp.1616-1627, 2014 (SCI-Expanded)

XXIII. **Cartesian Grid Mapper: Transformation Media for Modeling Arbitrary Curved Boundaries With Cartesian Grids**
ÖZGÜN Ö., KUZUOĞLU M.
IEEE ANTENNAS AND WIRELESS PROPAGATION LETTERS, vol.13, pp.1771-1774, 2014 (SCI-Expanded)

XXIV. **Monte Carlo analysis of ridged waveguides with transformation media**
Ozgun O., KUZUOĞLU M.
INTERNATIONAL JOURNAL OF RF AND MICROWAVE COMPUTER-AIDED ENGINEERING, vol.23, no.4, pp.476-481, 2013 (SCI-Expanded)

XXV. **A Transformation Media Based Approach for Efficient Monte Carlo Analysis of Scattering From Rough Surfaces With Objects**
Ozgun O., KUZUOĞLU M.
IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol.61, no.3, pp.1352-1362, 2013 (SCI-Expanded)

XXVI. **Software metamaterials: Transformation media based multi-scale techniques for computational electromagnetics**
Ozgun O., KUZUOĞLU M.
JOURNAL OF COMPUTATIONAL PHYSICS, vol.236, pp.203-219, 2013 (SCI-Expanded)

XXVII. **Transformation Electromagnetics Based Analysis of Waveguides With Random Rough or Periodic Grooved Surfaces**
Ozgun O., KUZUOĞLU M.
IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, vol.61, no.2, pp.709-719, 2013 (SCI-Expanded)

XXVIII. **Transformation-based metamaterials to eliminate the staircasing error in the finite difference time domain method**
Ozgun O., KUZUOĞLU M.
INTERNATIONAL JOURNAL OF RF AND MICROWAVE COMPUTER-AIDED ENGINEERING, vol.22, no.4, pp.530-540, 2012 (SCI-Expanded)

XXIX. **Comments on "ParAFEMCap: A Parallel Adaptive Finite-Element Method for 3-D VLSI Interconnect Capacitance Extraction"**
Ozgun O., MITTRA R., KUZUOĞLU M.
IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, vol.60, no.6, pp.1744-1745, 2012 (SCI-Expanded)

XXX. **Comparative Study of Analytical and Numerical Techniques in Modeling Electromagnetic Scattering from Single and Double Knife-Edge in 2D Ground Wave Propagation Problems**
Ozgun O., Sevgi L.
APPLIED COMPUTATIONAL ELECTROMAGNETICS SOCIETY JOURNAL, vol.27, no.5, pp.376-388, 2012 (SCI-Expanded)

XXXI. **PETOOL: MATLAB-based one-way and two-way split-step parabolic equation tool for radiowave propagation over variable terrain**
Ozgun O., APAYDIN G., KUZUOĞLU M., Sevgi L.
COMPUTER PHYSICS COMMUNICATIONS, vol.182, no.12, pp.2638-2654, 2011 (SCI-Expanded)

XXXII. **A Novel Two-Way Finite-Element Parabolic Equation Groundwave Propagation Tool: Tests With Canonical Structures and Calibration**
APAYDIN G., Ozgun O., KUZUOĞLU M., Sevgi L.
IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING, vol.49, no.8, pp.2887-2899, 2011 (SCI-Expanded)

XXXIII. **Form Invariance of Maxwell's Equations: The Pathway to Novel Metamaterial Specifications for Electromagnetic Reshaping**
Ozgun O., KUZUOĞLU M.
IEEE ANTENNAS AND PROPAGATION MAGAZINE, vol.52, no.3, pp.51-65, 2010 (SCI-Expanded)

XXXIV. **PO-BASED CHARACTERISTIC BASIS FINITE ELEMENT METHOD (CBFEM-PO)-A PARALLEL, ITERATION-FREE DOMAIN DECOMPOSITION ALGORITHM USING PERFECTLY MATCHED LAYERS FOR LARGE-SCALE ELECTROMAGNETIC SCATTERING PROBLEMS**
Ozgun O., MITTRA R., KUZUOĞLU M.
MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, vol.52, no.5, pp.1053-1060, 2010 (SCI-Expanded)

XXXV. **Iterative leap-field domain decomposition method: a domain decomposition finite element algorithm for 3D electromagnetic boundary value problems**
Ozgun O., KUZUOĞLU M.
IET MICROWAVES ANTENNAS & PROPAGATION, vol.4, no.4, pp.543-552, 2010 (SCI-Expanded)

XXXVI. **Domain compression via anisotropic metamaterials designed by coordinate transformations**
Ozgun O., KUZUOĞLU M.
JOURNAL OF COMPUTATIONAL PHYSICS, vol.229, no.3, pp.921-932, 2010 (SCI-Expanded)

XXXVII. **General-Purpose Characteristic Basis Finite Element Method for Multi-Scale Electrostatic and Electromagnetic Problems**
Ozgun O., MITTRA R., KUZUOĞLU M.
ELECTROMAGNETICS, vol.30, pp.205-221, 2010 (SCI-Expanded)

XXXVIII. **Multilevel Characteristic Basis Finite-Element Method (ML-CBFEM)-An Efficient Version of a Domain Decomposition Algorithm for Large-Scale Electromagnetic Problems**
Ozgun O., MITTRA R., KUZUOĞLU M.
IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol.57, no.10, pp.3381-3387, 2009 (SCI-Expanded)

XXXIX. **Recursive Two-Way Parabolic Equation Approach for Modeling Terrain Effects in Tropospheric Propagation**
Ozgun O.
IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol.57, no.9, pp.2706-2714, 2009 (SCI-Expanded)

XL. **Parallelized Characteristic Basis Finite Element Method (CBFEM-MPI)-A non-iterative domain decomposition algorithm for electromagnetic scattering problems**
Ozgun O., MITTRA R., KUZUOĞLU M.
JOURNAL OF COMPUTATIONAL PHYSICS, vol.228, no.6, pp.2225-2238, 2009 (SCI-Expanded)

XLI. **CBFEM-MPI: A Parallelized Version of Characteristic Basis Finite Element Method for Extraction of 3-D Interconnect Capacitances**
Ozgun O., MITTRA R., KUZUOĞLU M.
IEEE TRANSACTIONS ON ADVANCED PACKAGING, vol.32, no.1, pp.164-174, 2009 (SCI-Expanded)

XLII. **Form-Invariance of Maxwell's Equations in Waveguide Cross-Section Transformations**
Ozgun O., KUZUOĞLU M.
ELECTROMAGNETICS, vol.29, no.4, pp.353-376, 2009 (SCI-Expanded)

XLIII. **Efficient finite element solution of low-frequency scattering problems via anisotropic metamaterial layers**
Ozgun O., KUZUOĞLU M.
MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, vol.50, no.3, pp.639-646, 2008 (SCI-Expanded)

XLIV. **Finite element analysis of electromagnetic scattering problems via iterative leap-field domain decomposition method**
Ozgun O., KUZUOĞLU M.
JOURNAL OF ELECTROMAGNETIC WAVES AND APPLICATIONS, vol.22, pp.251-266, 2008 (SCI-Expanded)

XLV. **Recent advances in perfectly matched layers in finite element applications**
Ozgun O., KUZUOĞLU M.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, vol.16, no.1, pp.57-66, 2008 (SCI-Expanded)

XLVI. **Near-field performance analysis of locally-conformal perfectly matched absorbers via Monte Carlo simulations**
Ozgun O., KUZUOĞLU M.
JOURNAL OF COMPUTATIONAL PHYSICS, vol.227, no.2, pp.1225-1245, 2007 (SCI-Expanded)

XLVII. **Utilization of anisotropic metamaterial layers in waveguide miniaturization and transitions**
Ozgun O., KUZUOGLU M.
IEEE MICROWAVE AND WIRELESS COMPONENTS LETTERS, vol.17, no.11, pp.754-756, 2007 (SCI-Expanded)

XLVIII. **Electromagnetic metamorphosis: Reshaping scatterers via conformal anisotropic metamaterial coatings**
Ozgun O., KUZUOGLU M.
MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, vol.49, no.10, pp.2386-2392, 2007 (SCI-Expanded)

XLIX. **Forward-backward domain decomposition method for finite element solution of electromagnetic boundary value problems**
Ozgun O., KUZUOGLU M.
MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, vol.49, no.10, pp.2582-2590, 2007 (SCI-Expanded)

L. **Multicenter perfectly matched layer implementation for finite element mesh truncation**
Ozgun O., KUZUOGLU M.
MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, vol.49, no.4, pp.827-832, 2007 (SCI-Expanded)

LI. **Non-Maxwellian locally-conformal PML absorbers for finite element mesh truncation**
Ozgun O., KUZUOGLU M.

IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol.55, no.3, pp.931-937, 2007 (SCI-Expanded)

LII. **Locally-conformal perfectly matched layer implementation for finite element mesh truncation**
Ozgun O., KUZUOGLU M.
MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, vol.48, no.9, pp.1836-1839, 2006 (SCI-Expanded)

LIII. **Design of dual-frequency probe-fed microstrip antennas with genetic optimization algorithm**
Ozgun O., MUTLU S., AKSUN M., ALATAN L.
IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, vol.51, no.8, pp.1947-1954, 2003 (SCI-Expanded)

Articles Published in Other Journals

I. **An Efficient Numerical Approach for Evaluating Sommerfeld Integrals Arising in the Construction of Green's Functions for Layered Media**
ÖZGÜN Ö., Mittra R., KUZUOĞLU M.
IEEE Journal on Multiscale and Multiphysics Computational Techniques, vol.7, pp.328-335, 2022 (Scopus)

II. **Multiscale Modeling of Thin-Wire Coupling Problems Using Hybridization of Finite Element and Dipole Moment Methods and GPU Acceleration**
ÖZGÜN Ö., Mittra R., KUZUOĞLU M.
IEEE JOURNAL ON MULTISCALE AND MULTIPHYSICS COMPUTATIONAL TECHNIQUES, vol.5, pp.155-166, 2020 (ESCI)

III. **Recent Developments in Transformation Optics aided CEM**
ÖZGÜN Ö., KUZUOĞLU M.
Forum for Electromagnetic Research Methods and Application Technologies, vol.1, pp.1-15, 2014 (Peer-Reviewed Journal)

IV. **Dönüşümsel Elektromanyetik Yaklaşımı ile Dalgalı Deniz Yüzeyi ve Üzerindeki Cisimlerden Saçılma Probleminin Etkin Monte Carlo Simülasyonu**
ÖZGÜN Ö., KUZUOĞLU M.
EMO Bilimsel Dergi, vol.3, pp.41-48, 2013 (Peer-Reviewed Journal)

V. **FORM-INVARIANCE OF MAXWELL'S EQUATIONS IN COORDINATE TRANSFORMATIONS: METAMATERIALS AND NUMERICAL MODELS**
Ozgun O., KUZUOĞLU M.
METAMATERIALS: CLASSES, PROPERTIES AND APPLICATIONS, pp.87-136, 2010 (Peer-Reviewed Journal)

Books & Book Chapters

I. **MATLAB-based Finite Element Programming in Electromagnetic Modeling**
Özgün Ö., Kuzuoğlu M.
CRC, New York , Florida, 2018

II. **Chapter 9: Transformation optics-based computational materials for stochastic electromagnetics**
ÖZGÜN Ö., KUZUOĞLU M.
in: Advanced Engineering Materials and Modeling, Ashutosh Tiwari, N. Arul Murugan, Rajeev Ahuja, Editor, Wiley-Scrivener, pp.241-286, 2016

III. **Form-invariance of Maxwell's Equations in Coordinate Transformations: Metamaterials and Numerical Models**
ÖZGÜN Ö., KUZUOĞLU M.
in: Metamaterials Classes Properties and Applications, Tremblay E. J. , Editor, Nova Science Publishers, 2010

Refereed Congress / Symposium Publications in Proceedings

I. **GPU-Accelerated Shooting and Bouncing Ray Method for Inverse Synthetic Aperture Radar Imaging**
Bural B., ÖZGÜN Ö., YILMAZ A. E., KUZUOĞLU M.
32nd International Conference on Radioelectronics (RADIOELECTRONICS), Koshice, Slovakia, 21 - 22 April 2022, pp.1-4

II. **Efficient Computation of Green's Functions for Multilayer Media in the Context of 5G Applications**
Mittra R., ÖZGÜN Ö., Li C., KUZUOĞLU M.
15th European Conference on Antennas and Propagation (EuCAP), ELECTR NETWORK, 22 - 26 March 2021

III. **A GPU-Accelerated Hybrid Numerical Method for Modeling Multiscale EM Radiation Problems**
ÖZGÜN Ö., Mittra R., KUZUOĞLU M.
IEEE International Symposium on Antennas and Propagation / North American Radio Science Meeting, ELECTR NETWORK, 5 - 10 July 2020, pp.2019-2020

IV. **A Novel Numerical Technique for Analyzing Metasurfaces**
ÖZGÜN Ö., Mittra R., KUZUOĞLU M.
USNC-URSI Radio Science Meeting / IEEE International Symposium on Antennas and Propagation (AP-S), Georgia, United States Of America, 7 - 12 July 2019, pp.541-542

V. **Finite Element Domain Decomposition Method for Rough Sea Surface Scattering**
ÖZGÜN Ö., KUZUOĞLU M.
USNC-URSI Radio Science Meeting / IEEE International Symposium on Antennas and Propagation (AP-S), Georgia, United States Of America, 7 - 12 July 2019, pp.2089-2090

VI. **Electromagnetic Propagation Modeling Over Irregular Terrain Using a New Hybrid Method**
Altun G. Y., ÖZGÜN Ö.
18th Mediterranean Microwave Symposium (MMS), İstanbul, Turkey, 31 October - 02 November 2018, pp.258-261

VII. **A Radar Cross Section Reduction Method Using the Concept of Coordinate Transformation and Isotropic Dielectric Layers**
Pay C., ÖZGÜN Ö.
18th Mediterranean Microwave Symposium (MMS), İstanbul, Turkey, 31 October - 02 November 2018, pp.101-103

VIII. **Advanced finite element analysis for EMC engineering**
ÖZGÜN Ö.
4th International Electromagnetic Compatibility Conference, EMC Turkiye 2017, Ankara, Turkey, 24 - 27 September 2017

IX. **A Comparative Study of Radiowave Propagation Models for Urban and Suburban Path**
ÖZGÜN Ö.
IEEE AP-S Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, San Diego, United States Of America, 9 - 14 July 2017

X. **Finite Element Modeling of Anisotropic Half-Space Problems by a Simple Mesh Truncation Scheme**
ÖZGÜN Ö., KUZUOĞLU M.
International Symposium of IEEE-Antennas-and-Propagation-Society / USNC/URSI National Radio Science Meeting, California, United States Of America, 9 - 14 July 2017, pp.1581-1582

XI. **A Numerical Model for Investigating the Effect of Rough Surface Parameters on Radar Cross Section Statistics**
KUZUOĞLU M., ÖZGÜN Ö.
International Symposium of IEEE-Antennas-and-Propagation-Society / USNC/URSI National Radio Science Meeting, California, United States Of America, 9 - 14 July 2017, pp.1837-1838

XII. **A Microwave Imaging Model for Biomedical Applications**
ÖZGÜN Ö., KUZUOĞLU M.
International Symposium of IEEE-Antennas-and-Propagation-Society / USNC/URSI National Radio Science Meeting, California, United States Of America, 9 - 14 July 2017, pp.2373-2374

XIII. **Sonlu Elemanlar Yöntemiyle Yarık Halka Rezonatörlerin Saçılma Parametrelerinin Hesaplanması**
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8th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics (Metamaterials 2014), 25 - 30 August 2014

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ÖZGÜN Ö., KUZUOĞLU M.
Progress In Electromagnetics Research Symposium (PIERS), Moscow, Russia, 19 - 23 August 2012, pp.981-984

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Progress In Electromagnetics Research Symposium (PIERS), Moscow, Russia, 19 - 23 August 2012, pp.707-710

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Ozgun Ö., KUZUOĞLU M.
11th International Conference on Computational Science and Its Applications (ICCSA), Santander, Spain, 20 - 23 June 2011, vol.6785, pp.11-25

XXV. **Two-way Fourier split step algorithm over variable terrain with narrow and wide angle propagators**
Ozgun O., APAYDIN G., KUZUOĞLU M., Sevgi L.
2010 IEEE International Symposium on Antennas and Propagation and CNC-USNC/URSI Radio Science Meeting - Leading the Wave, AP-S/URSI 2010, Toronto, Canada, 11 - 17 July 2010

XXVI. **Solution of Large Scattering Problems using a Multilevel Scheme in the context of Characteristic Basis Finite Element Method**

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2010 IEEE International Symposium Antennas and Propagation/CNC-USNC/URSI Radio Science Meeting, Toronto, Canada, 11 - 17 July 2010

XXVII. **Finite Element/Dipole Moment Method for Efficient Solution of Multiscale Electromagnetic Problems**
ÖZGÜN Ö., Mittra R., KUZUOĞLU M.
2010 IEEE International Symposium Antennas and Propagation/CNC-USNC/URSI Radio Science Meeting, Toronto, Canada, 11 - 17 July 2010

XXVIII. **Two-way Split-Step Fourier and Finite Element based Parabolic Equation Propagation Tools: Comparisons and Calibration**
Apaydin G., ÖZGÜN Ö., KUZUOĞLU M., Sevgi L.
2010 IEEE International Symposium Antennas and Propagation/CNC-USNC/URSI Radio Science Meeting, Toronto, Canada, 11 - 17 July 2010

Supported Projects

ÖZGÜN Ö., KUZUOĞLU M., YILMAZ A. E., TUBITAK Project, Yüksek Frekans Radar Kesit Alani (Rka) Hesaplamalari İçin Hizli Analiz Araci Geliştirilmesi, 2020 - 2022
ÖZGÜN Ö., KUZUOĞLU M., Project Supported by Higher Education Institutions, Kanserli Dokuların Tespiti için Koordinat Dönüşümüne Dayanan Mikrodalga Görüntüleme Algoritmalarının Geliştirilmesi, 2016 - 2017
Özgün Ö., TUBITAK Project, Yeni Yön bağımlı Metamateryal Özellikleri Tasarlayarak Elektromanyetik Problemlerin Etkin Sayısal Modellenmesi, 2010 - 2012

Memberships / Tasks in Scientific Organizations

URSI (International Union of Radio Science) Turkey National Committee, Chairman, 2018 - Continues, Turkey
IEEE (Institute of Electrical and Electronics Engineers), Member, 2005 - Continues, United States Of America

Metrics

Publication: 90
Citation (WoS): 734
Citation (Scopus): 933
H-Index (WoS): 13
H-Index (Scopus): 15

Scholarships

Full graduate scholarship, University, 1998 - 2021
Postdoctoral research grant , TUBITAK, 2007 - 2008
Full under-graduate scholarship, University, 1993 - 1998

Awards

Özgün Ö., EMO Dergisi En İyi Makale Ödülü, Emo Elektrik Mühendisleri Odası, June 2014
Özgün Ö., Leopold B. Felsen Elektromanyetikte Üstün Başarı Ödülü, Leopold B. Felsen Vakfı, July 2009
Özgün Ö., En İyi Tez Ödülü, Odtü Fen Bilimleri Enstitüsü, April 2007
Özgün Ö., En İyi Öğrenci Sunum Ödülü, Ursı Türkiye, September 2006

Non Academic Experience

Pennsylvania State University (USA)
ASELSAN
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