

Prof.Dr. MUSTAFA KUZUOĞLU

Kişisel Bilgiler

İş Telefonu: [+90 312 210 2308](tel:+903122102308)

E-posta: kuzuoglu@metu.edu.tr

Web: <https://avesis.metu.edu.tr/kuzuoglu>

Eğitim Bilgileri

Doktora, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, Türkiye 1981 - 1986

Yüksek Lisans, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, Türkiye 1979 - 1981

Lisans, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, Türkiye 1975 - 1979

Yaptığı Tezler

Doktora, A new finite element method for electromagnetic boundary value problems in combined interior and exterior regions, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 1986

Yüksek Lisans, Transient radiation and scattering from thin wires and conducting cylinders of arbitrary cross-section, Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 1981

Araştırma Alanları

Mühendislik ve Teknoloji

Akademik Unvanlar / Görevler

Prof.Dr., Orta Doğu Teknik Üniversitesi, Mühendislik Fakültesi, Elektrik-Elektronik Mühendisliği Bölümü, 1998 - Devam Ediyor

Yönetilen Tezler

Kuzuoğlu M., Radar resource allocation optimization in phased array radar systems, Yüksek Lisans, İ.SERBEST(Öğrenci), 2019

Kuzuoğlu M., Detection of mini/micro unmanned air vehicle (UAV) under clutter presence and environmental effects, Yüksek Lisans, İ.GÖKHAN(Öğrenci), 2019

KUZUOĞLU M., Radar performance analysis approaches for the evaluation of radar systems, Yüksek Lisans, Ü.YENER(Öğrenci), 2018

KUZUOĞLU M., Finite element modeling of scattering from objects in rectangular waveguides, Yüksek Lisans, H.GÜLBAŞ(Öğrenci), 2017

KUZUOĞLU M., Continuous-time nonlinear estimation filters using UKF-aided Gaussian sum representations, Doktora, M.GÖKCE(Öğrenci), 2014

KUZUOĞLU M., Investigation of rough surface scattering of electromagnetic waves using finite element method, Yüksek Lisans, Ö.EMRE(Öğrenci), 2013

KUZUOĞLU M., Comparison of Bayesian networks and Dempster-Shafer theory in attribute tracking systems, Yüksek Lisans, Ç.SAKA(Öğrenci), 2013

KUZUOĞLU M., Monte Carlo analysis of the effects of material and shape uncertainties on radar cross section by the finite difference time domain method, Yüksek Lisans, A.KEMAL(Öğrenci), 2013

KUZUOĞLU M., TANIK Y., Low elevation target detection and direction finding, Yüksek Lisans, G.UYAR(Öğrenci), 2012

KUZUOĞLU M., Optimum search strategies for electronic support measures receivers, Yüksek Lisans, H.SİNAN(Öğrenci), 2012

ALATAN L., KUZUOĞLU M., Analysis and design of microstrip patch antennas with arbitrary slot shapes, Doktora, G.ŞENER(Öğrenci), 2011

KUZUOĞLU M., Solution of the antenna placement problem by means of global optimization techniques, Yüksek Lisans, M.URAL(Öğrenci), 2010

KUZUOĞLU M., Target tracking with phased array radar by using adaptive update rate, Yüksek Lisans, Ö.İPEK(Öğrenci), 2010

KUZUOĞLU M., Periodic search strategies for electronic countermeasure receivers with desired probability of intercept for each frequency band, Yüksek Lisans, E.KÖKSAL(Öğrenci), 2010

KUZUOĞLU M., Computation of radar cross sections of complex targets by shooting and bouncing ray method, Yüksek Lisans, S.ÖZGÜN(Öğrenci), 2009

KUZUOĞLU M., Multiple classifier systems for a generic missile warner, Yüksek Lisans, K.BAŞIBÜYÜK(Öğrenci), 2009

KUZUOĞLU M., Investigation of electromagnetic wave propagation in double negative materials, Doktora, S.GÖKÇEN(Öğrenci), 2008

KUZUOĞLU M., Computation of radar cross sections of complex targets by physical optics with modified surface normals, Yüksek Lisans, A.CEMAL(Öğrenci), 2008

KUZUOĞLU M., Finite element modeling of electromagnetic scattering problems via hexahedral edge elements, Doktora, A.EGEMEN(Öğrenci), 2007

KUZUOĞLU M., Finite element modeling of electromagnetic radiation/scattering problems by domain decomposition, Doktora, Ö.ÖZGÜN(Öğrenci), 2007

KUZUOĞLU M., Evaluation of multi target tracking algorithms in the presence of clutter, Yüksek Lisans, O.GÜNER(Öğrenci), 2005

KUZUOĞLU M., Performance metrics for fundamental estimation filters, Yüksek Lisans, K.KAÇAY(Öğrenci), 2005

KUZUOĞLU M., Specific absorption rate calculations using finite difference time domain method, Yüksek Lisans, İ.TÜRER(Öğrenci), 2004

KUZUOĞLU M., Identification of electromagnetic scattering mechanisms by two dimensional windowed fourier transform approach, Yüksek Lisans, K.EGEMEN(Öğrenci), 2004

KUZUOĞLU M., Implementation of mesh generation algorithms, Yüksek Lisans, Ö.YILDIZ(Öğrenci), 2001

KUZUOĞLU M., Development of a software involving a group of iterative solvers and preconditioners for sparse matrix equations of computational electromagnetics, Yüksek Lisans, N.ÜNŞOY(Öğrenci), 2001

KUZUOĞLU M., Analysis of electromagnetic scattering problems with the finite element method, Yüksek Lisans, Y.ASIM(Öğrenci), 2000

KUZUOĞLU M., Development of a mesh generation software for computational electromagnetics, Yüksek Lisans, B.BARIŞ(Öğrenci), 2000

KUZUOĞLU M., LEBLEBİCİOĞLU M. K. , A Four parameter atomic decomposition and the related time-frequency distribution, Doktora, A.BULTAN(Öğrenci), 1995

KUZUOĞLU M., Optimal control approach for the solution of electromagnetic inverse scattering problems, Doktora, M.ÖNDER(Öğrenci), 1993

KUZUOĞLU M., Finite-dimensional state-space approximations of transient electromagnetic systems, Yüksek Lisans, N.KINAYMAN(Öğrenci), 1993

KUZUOĞLU M., Investigation and development of some algorithms in time optimal control, Yüksek Lisans, S.TUNÇÖZ(Öğrenci), 1992

KUZUOĞLU M., Iterative calculation of optimal output feedback matrices, Yüksek Lisans, K.YEHYA(Öğrenci), 1991

KUZUOĞLU M., Coherent detection of target signals in non Gaussian clutter, Yüksek Lisans, S.BAYRAKERİ(Öğrenci), 1990
KUZUOĞLU M., Analysis of microstrip and microstrip-like structures by the finite element method, Yüksek Lisans, TAKDENİZ(Öğrenci), 1989
KUZUOĞLU M., Radar range performance analysis for different target fluctuation models, Yüksek Lisans, M.EMRE(Öğrenci), 1989
KUZUOĞLU M., A Finite element method for the solution of three-dimensional electromagnetic boundary value problems with real and artificial boundary conditions, Yüksek Lisans, Ü.PEKEL(Öğrenci), 1987

SCI, SSCI ve AHCI İndekslerine Giren Dergilerde Yayınlanan Makaleler

- **Enhancement of optical parametric amplification in microresonators via gain medium parameter selection and mean cavity wall reflectivity adjustment**
Asirim O. E. , KUZUOĞLU M.
JOURNAL OF PHYSICS B-ATOMIC MOLECULAR AND OPTICAL PHYSICS, cilt.53, 2020 (SCI İndekslerine Giren Dergi)
- **High-Fidelity Harmonic Generation in Optical Micro-Resonators Using BFGS Algorithm**
Asirim O. E. , Yolalmaz A., KUZUOĞLU M.
MICROMACHINES, cilt.11, 2020 (SCI İndekslerine Giren Dergi)
- **Super-Gain Optical Parametric Amplification in Dielectric Micro-Resonators via BFGS Algorithm-Based Non-Linear Programming**
Asirim O. E. , KUZUOĞLU M.
APPLIED SCIENCES-BASEL, cilt.10, 2020 (SCI İndekslerine Giren Dergi)
- **A novel CEM technique for modeling electromagnetic scattering from metasurfaces**
ÖZGÜN Ö., Mitra R., KUZUOĞLU M.
INTERNATIONAL JOURNAL OF NUMERICAL MODELLING-ELECTRONIC NETWORKS DEVICES AND FIELDS, cilt.33, 2020 (SCI İndekslerine Giren Dergi)
- **Numerical Study of Resonant Optical Parametric Amplification via Gain Factor Optimization in Dispersive Microresonators**
Asirim O. E. , KUZUOĞLU M.
PHOTONICS, cilt.7, 2020 (SCI İndekslerine Giren Dergi)
- **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, cilt.67, ss.335-345, 2019 (SCI İndekslerine Giren Dergi)
- **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, cilt.34, 2018 (SCI İndekslerine Giren Dergi)
- **Remesh-Free Shape Optimization by Transformation Optics**
ÖZGÜN Ö., KUZUOĞLU M.
IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, cilt.64, ss.5479-5482, 2016 (SCI İndekslerine Giren Dergi)
- **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, cilt.26, ss.322-329, 2016 (SCI İndekslerine Giren Dergi)
- **Questioning Degree of Accuracy Offered by the Spectral Element Method in Computational Electromagnetics**
Mahariq I., KURT H., KUZUOĞLU M.

- APPLIED COMPUTATIONAL ELECTROMAGNETICS SOCIETY JOURNAL, cilt.30, ss.698-705, 2015 (SCI İndekslerine Giren Dergi)
- **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, cilt.56, ss.165-182, 2015 (SCI İndekslerine Giren Dergi)
Unscented Kalman filter-aided Gaussian sum filter
Gokce M., KUZUOĞLU M.
 - IET RADAR SONAR AND NAVIGATION, cilt.9, ss.589-599, 2015 (SCI İndekslerine Giren Dergi)
Excessive Memory Usage of the ELLPACK Sparse Matrix Storage Scheme throughout the Finite Element Computations
Akinci G., YILMAZ A. E. , KUZUOĞLU M.
 - RADIOENGINEERING, cilt.23, ss.997-1004, 2014 (SCI İndekslerine Giren Dergi)
Approximation of transformation media-based reshaping action by genetic optimization
Ozgun O., KUZUOĞLU M.
 - APPLIED PHYSICS A-MATERIALS SCIENCE & PROCESSING, cilt.117, ss.597-604, 2014 (SCI İndekslerine Giren Dergi)
Combining perturbation theory and transformation electromagnetics for finite element solution of Helmholtz-type scattering problems
KUZUOĞLU M., Ozgun O.
 - JOURNAL OF COMPUTATIONAL PHYSICS, cilt.274, ss.883-897, 2014 (SCI İndekslerine Giren Dergi)
Photonic Nanojet Analysis by Spectral Element Method
Mahariq I., KUZUOĞLU M., TARMAN I. H. , KURT H.
 - IEEE PHOTONICS JOURNAL, cilt.6, 2014 (SCI İndekslerine Giren Dergi)
On the Attenuation of the Perfectly Matched Layer in Electromagnetic Scattering Problems with the Spectral Element Method
Mahariq I., KUZUOĞLU M., TARMAN I. H.
 - APPLIED COMPUTATIONAL ELECTROMAGNETICS SOCIETY JOURNAL, cilt.29, ss.701-710, 2014 (SCI İndekslerine Giren Dergi)
Comments on "Propagation Modeling Over Irregular Terrain by the Improved Two-Way Parabolic Equation Method"
Ozgun O., Apaydin G., KUZUOĞLU M., Sevgi L.
 - IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, cilt.62, ss.3894, 2014 (SCI İndekslerine Giren Dergi)
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, cilt.185, ss.1616-1627, 2014 (SCI İndekslerine Giren Dergi)
Cartesian Grid Mapper: Transformation Media for Modeling Arbitrary Curved Boundaries With Cartesian Grids
ÖZGÜN Ö., KUZUOĞLU M.
 - IEEE ANTENNAS AND WIRELESS PROPAGATION LETTERS, cilt.13, ss.1771-1774, 2014 (SCI İndekslerine Giren Dergi)
PERFORMANCE COMPARISON OF VARIOUS HEXAHEDRAL ELEMENT QUALITY METRICS VIA PARAMETRIC DISTORTION OF AN IDEAL ELEMENT
Yalcin E., YILMAZ A. E. , KUZUOĞLU M.
 - INTERNATIONAL JOURNAL OF COMPUTATIONAL METHODS, cilt.10, 2013 (SCI İndekslerine Giren Dergi)
Monte Carlo analysis of ridged waveguides with transformation media
Ozgun O., KUZUOĞLU M.
 - INTERNATIONAL JOURNAL OF RF AND MICROWAVE COMPUTER-AIDED ENGINEERING, cilt.23, ss.476-481, 2013 (SCI İndekslerine Giren Dergi)
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, cilt.61, ss.1352-1362, 2013 (SCI İndekslerine Giren Dergi)

Software metamaterials: Transformation media based multi-scale techniques for computational electromagnetics

Ozgun O., KUZUOĞLU M.

JOURNAL OF COMPUTATIONAL PHYSICS, cilt.236, ss.203-219, 2013 (SCI İndekslerine Giren Dergi)

Transformation Electromagnetics Based Analysis of Waveguides With Random Rough or Periodic Grooved Surfaces

Ozgun O., KUZUOĞLU M.

IEEE TRANSACTIONS ON MICROWAVE THEORY AND TECHNIQUES, cilt.61, ss.709-719, 2013 (SCI İndekslerine Giren Dergi)

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, cilt.22, ss.530-540, 2012 (SCI İndekslerine Giren Dergi)

Monte Carlo-Based Characteristic Basis Finite-Element Method (MC-CBFEM) for Numerical Analysis of Scattering From Objects On/Above Rough Sea Surfaces

Ozgun O., KUZUOĞLU M.

IEEE TRANSACTIONS ON GEOSCIENCE AND REMOTE SENSING, cilt.50, ss.769-783, 2012 (SCI İndekslerine Giren Dergi)

PETOOOL: 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, cilt.182, ss.2638-2654, 2011 (SCI İndekslerine Giren Dergi)

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, cilt.49, ss.2887-2899, 2011 (SCI İndekslerine Giren Dergi)

Trying to Interpret Modern Art as a Finite-Element Practitioner

YILMAZ A. E. , KUZUOĞLU M.

IEEE ANTENNAS AND PROPAGATION MAGAZINE, cilt.53, ss.158-166, 2011 (SCI İndekslerine Giren Dergi)

Form Invariance of Maxwell's Equations: The Pathway to Novel Metamaterial Specifications for Electromagnetic Reshaping

Ozgun O., KUZUOĞLU M.

IEEE ANTENNAS AND PROPAGATION MAGAZINE, cilt.52, ss.51-65, 2010 (SCI İndekslerine Giren Dergi)

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, cilt.52, ss.1053-1060, 2010 (SCI İndekslerine Giren Dergi)

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, cilt.4, ss.543-552, 2010 (SCI İndekslerine Giren Dergi)

Domain compression via anisotropic metamaterials designed by coordinate transformations

Ozgun O., KUZUOĞLU M.

JOURNAL OF COMPUTATIONAL PHYSICS, cilt.229, ss.921-932, 2010 (SCI İndekslerine Giren Dergi)

- **General-Purpose Characteristic Basis Finite Element Method for Multi-Scale Electrostatic and Electromagnetic Problems**
Ozgun O., Mitra R., KUZUOĞLU M.
ELECTROMAGNETICS, cilt.30, ss.205-221, 2010 (SCI İndekslerine Giren Dergi)
- **Multilevel Characteristic Basis Finite-Element Method (ML-CBFEM)-An Efficient Version of a Domain Decomposition Algorithm for Large-Scale Electromagnetic Problems**
Ozgun O., Mitra R., KUZUOĞLU M.
IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, cilt.57, ss.3381-3387, 2009 (SCI İndekslerine Giren Dergi)
- **Design of the Square Loop Frequency Selective Surfaces with Particle Swarm Optimization via the Equivalent Circuit Model**
YILMAZ A. E. , KUZUOĞLU M.
RADIOENGINEERING, cilt.18, ss.95-102, 2009 (SCI İndekslerine Giren Dergi)
- **A particle swarm optimization approach for hexahedral mesh smoothing**
Yilmaz A. E. , KUZUOĞLU M.
INTERNATIONAL JOURNAL FOR NUMERICAL METHODS IN FLUIDS, cilt.60, ss.55-78, 2009 (SCI İndekslerine Giren Dergi)
- **Parallelized Characteristic Basis Finite Element Method (CBFEM-MPI)-A non-iterative domain decomposition algorithm for electromagnetic scattering problems**
Ozgun O., Mitra R., KUZUOĞLU M.
JOURNAL OF COMPUTATIONAL PHYSICS, cilt.228, ss.2225-2238, 2009 (SCI İndekslerine Giren Dergi)
- **CBFEM-MPI: A Parallelized Version of Characteristic Basis Finite Element Method for Extraction of 3-D Interconnect Capacitances**
Ozgun O., Mitra R., KUZUOĞLU M.
IEEE TRANSACTIONS ON ADVANCED PACKAGING, cilt.32, ss.164-174, 2009 (SCI İndekslerine Giren Dergi)
- **Form-Invariance of Maxwell's Equations in Waveguide Cross-Section Transformations**
Ozgun O., KUZUOĞLU M.
ELECTROMAGNETICS, cilt.29, ss.353-376, 2009 (SCI İndekslerine Giren Dergi)
- **Efficient finite element solution of low-frequency scattering problems via anisotropic metamaterial layers**
Ozgun O., KUZUOĞLU M.
MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, cilt.50, ss.639-646, 2008 (SCI İndekslerine Giren Dergi)
- **ANALYSIS OF HIGH FREQUENCY PLANE WAVE SCATTERING FROM A DOUBLE NEGATIVE CYLINDER VIA THE MODIFIED WATSON TRANSFORMATION AND DEBYE EXPANSION**
ŞEN S., KUZUOĞLU M.
PROGRESS IN ELECTROMAGNETICS RESEARCH-PIER, cilt.84, ss.55-92, 2008 (SCI İndekslerine Giren Dergi)
- **My collaboration with Raj Mitra: Contributions to the theory of perfectly matched layers**
Kuzuoglu M.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, cilt.16, ss.1-6, 2008 (SCI İndekslerine Giren Dergi)
- **Comparison of linear and quadratic hexahedral edge elements in electromagnetic scattering problems**
YILMAZ A., Kuzuoglu M.
AEU-INTERNATIONAL JOURNAL OF ELECTRONICS AND COMMUNICATIONS, cilt.62, ss.582-587, 2008 (SCI İndekslerine Giren Dergi)
- **Recent advances in perfectly matched layers in finite element applications**
Ozgun O., KUZUOĞLU M.
TURKISH JOURNAL OF ELECTRICAL ENGINEERING AND COMPUTER SCIENCES, cilt.16, ss.57-66, 2008 (SCI İndekslerine Giren Dergi)
- **Finite element analysis of electromagnetic scattering problems via iterative leap-field domain decomposition method**

Ozgun O., KUZUOĞLU M.

JOURNAL OF ELECTROMAGNETIC WAVES AND APPLICATIONS, cilt.22, ss.251-266, 2008 (SCI İndekslerine Giren Dergi)

● **Near-field performance analysis of locally-conformal perfectly matched absorbers via Monte Carlo simulations**

Ozgun O., KUZUOĞLU M.

JOURNAL OF COMPUTATIONAL PHYSICS, cilt.227, ss.1225-1245, 2007 (SCI İndekslerine Giren Dergi)

● **Calculation of optimized parameters of rectangular microstrip patch antenna using particle swarm optimization**

Yilmaz A. E. , Kuzuoglu M.

MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, cilt.49, ss.2905-2907, 2007 (SCI İndekslerine Giren Dergi)

● **Utilization of anisotropic metamaterial layers in waveguide miniaturization and transitions**

Ozgun O., Kuzuoglu M.

IEEE MICROWAVE AND WIRELESS COMPONENTS LETTERS, cilt.17, ss.754-756, 2007 (SCI İndekslerine Giren Dergi)

● **Forward-backward domain decomposition method for finite element solution of electromagnetic boundary value problems**

Ozgun O., Kuzuoglu M.

MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, cilt.49, ss.2582-2590, 2007 (SCI İndekslerine Giren Dergi)

● **Electromagnetic metamorphosis: Reshaping scatterers via conformal anisotropic metamaterial coatings**

Ozgun O., Kuzuoglu M.

MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, cilt.49, ss.2386-2392, 2007 (SCI İndekslerine Giren Dergi)

● **Multicenter perfectly matched layer implementation for finite element mesh truncation**

Ozgun O., Kuzuoglu M.

MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, cilt.49, ss.827-832, 2007 (SCI İndekslerine Giren Dergi)

● **Non-Maxwellian locally-conformal PML absorbers for finite element mesh truncation**

Ozgun O., Kuzuoglu M.

IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, cilt.55, ss.931-937, 2007 (SCI İndekslerine Giren Dergi)

● **Analysis of perfectly matched double negative layers via complex coordinate transformations**
Kuzuoglu M.

IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, cilt.54, ss.3695-3699, 2006 (SCI İndekslerine Giren Dergi)

● **Locally-conformal perfectly matched layer implementation for finite element mesh truncation**

Ozgun O., Kuzuoglu M.

MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, cilt.48, ss.1836-1839, 2006 (SCI İndekslerine Giren Dergi)

● **Full-wave analysis of microstrip lines on a highly lossy substrate**

Prakash V., Kuzuoglu M., Mitra R.

MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, cilt.37, ss.325-329, 2003 (SCI İndekslerine Giren Dergi)

● **Improved design procedure for double-ridged waveguides**

Prakash V., Mitra R., Kuzuoglu M.

INTERNATIONAL JOURNAL OF RF AND MICROWAVE COMPUTER-AIDED ENGINEERING, cilt.12, ss.530-539, 2002 (SCI İndekslerine Giren Dergi)

● **An efficient solution of the generalized eigenvalue problems for planar transmission lines**

Prakash V., Kuzuoglu M., Mitra R.

MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, cilt.31, ss.194-197, 2001 (SCI İndekslerine Giren Dergi)

● **Pole estimation for arbitrarily-shaped dielectric targets using genetic algorithm-based resonance annihilation technique**

Turhan-Sayan G., Kuzuoglu M.

ELECTRONICS LETTERS, cilt.37, ss.380-381, 2001 (SCI İndekslerine Giren Dergi)

● **A new anisotropic perfectly matched layer medium for mesh truncation in finite difference time**

domain analysis

Tong M., Chen Y., Kuzuoglu M., Mittra R.

INTERNATIONAL JOURNAL OF ELECTRONICS, cilt.86, ss.1085-1091, 1999 (SCI İndekslerine Giren Dergi)

● **A robust algorithm for the solution of electromagnetic problems over a frequency interval via the Pade approximation**

Kuzuoglu M., Mittra R.

● MICROWAVE AND OPTICAL TECHNOLOGY LETTERS, cilt.20, ss.376-380, 1999 (SCI İndekslerine Giren Dergi)

● **Element solution of electromagnetic problems over a wide frequency range via the Pade approximation**

Kuzuoglu M., Mittra R.

● COMPUTER METHODS IN APPLIED MECHANICS AND ENGINEERING, cilt.169, ss.263-277, 1999 (SCI İndekslerine Giren Dergi)

● **Investigation of nonplanar perfectly matched absorbers for finite-element mesh truncation**

Kuzuoglu M., Mittra R.

● IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, cilt.45, ss.474-486, 1997 (SCI İndekslerine Giren Dergi)

● **Frequency dependence of the constitutive parameters of causal perfectly matched anisotropic absorbers**

Kuzuoglu M., Mittra R.

● IEEE MICROWAVE AND GUIDED WAVE LETTERS, cilt.6, ss.447-449, 1996 (SCI İndekslerine Giren Dergi)

● **Infinite-dimensional multilayer perceptrons**

Kuzuoglu M., Leblebicioğlu K.

● IEEE TRANSACTIONS ON NEURAL NETWORKS, cilt.7, ss.889-896, 1996 (SCI İndekslerine Giren Dergi)

● **ANALYTIC AND SEMIANALYTIC SOLUTIONS IN ELECTRICAL-IMPEDANCE TOMOGRAPHY .1. 2-DIMENSIONAL PROBLEMS**

PIDCOCK M., KUZUOĞLU M., LEBLEBİCİOĞLU M. K.

● PHYSIOLOGICAL MEASUREMENT, cilt.16, ss.77-90, 1995 (SCI İndekslerine Giren Dergi)

● **ELECTRICAL-IMPEDANCE TOMOGRAPHY USING INDUCED CURRENTS**

GENCER N. G. , KUZUOĞLU M., İDER Y.

● IEEE TRANSACTIONS ON MEDICAL IMAGING, cilt.13, ss.338-350, 1994 (SCI İndekslerine Giren Dergi)

● **A FAST IMAGE-RECONSTRUCTION ALGORITHM FOR ELECTRICAL-IMPEDANCE TOMOGRAPHY**

KUZUOĞLU M., LEBLEBİCİOĞLU K., İDER Y.

● PHYSIOLOGICAL MEASUREMENT, cilt.15, 1994 (SCI İndekslerine Giren Dergi)

● **RECONSTRUCTION OF PERMITTIVITY AND CONDUCTIVITY PROFILES OF A DIELECTRIC SLAB IN THE TIME DOMAIN BY DESCENT METHODS**

ONDER M., KUZUOĞLU M.

● IEE PROCEEDINGS-H MICROWAVES ANTENNAS AND PROPAGATION, cilt.139, ss.435-440, 1992 (SCI İndekslerine Giren Dergi)

● **OPTIMAL-CONTROL OF THE FEED VOLTAGE OF A DIPOLE ANTENNA**

ONDER M., KUZUOĞLU M.

● IEEE TRANSACTIONS ON ANTENNAS AND PROPAGATION, cilt.40, ss.414-421, 1992 (SCI İndekslerine Giren Dergi)

● **ANALYSIS OF 3-DIMENSIONAL SOFTWARE EIT PHANTOMS BY THE FINITE-ELEMENT METHOD**

KUZUOĞLU M., MOHDSAİD M., İDER Y.

● CLINICAL PHYSICS AND PHYSIOLOGICAL MEASUREMENT, cilt.13, ss.135-138, 1992 (SCI İndekslerine Giren Dergi)

● **ELECTRICAL-IMPEDANCE TOMOGRAPHY USING INDUCED AND INJECTED CURRENTS**

GENCER N., İDER Y., KUZUOĞLU M.

● CLINICAL PHYSICS AND PHYSIOLOGICAL MEASUREMENT, cilt.13, ss.95-99, 1992 (SCI İndekslerine Giren Dergi)

● **DETERMINATION OF THE BOUNDARY OF AN OBJECT INSERTED INTO A WATER-FILLED CYLINDER**

İDER Y., NAKİBOĞLU B., KUZUOĞLU M., GENCER N.

● CLINICAL PHYSICS AND PHYSIOLOGICAL MEASUREMENT, cilt.13, ss.151-154, 1992 (SCI İndekslerine Giren Dergi)

Diğer Dergilerde Yayınlanan Makaleler

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

Kitap & Kitap Bölümleri

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

Hakemli Kongre / Sempozyum Bildiri Kitaplarında Yer Alan Yayınlar

- **A Novel Numerical Technique for Analyzing Metasurfaces**
ÖZGÜN Ö., Mitra R., KUZUOĞLU M.
2019 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Atlanta, GA, USA, Amerika Birleşik Devletleri, 7 - 12 Temmuz 2019
- **Finite Element Domain Decomposition Method for Rough Sea Surface Scattering**
ÖZGÜN Ö., KUZUOĞLU M.
2019 IEEE International Symposium on Antennas and Propagation and USNC-URSI Radio Science Meeting, Atlanta, GA, USA, Amerika Birleşik Devletleri, 7 - 12 Temmuz 2019
- **Modeling and Analysis of Sea Clutter by a Novel Numerical Method**
ÖZGÜN Ö., KUZUOĞLU M.
The 7th Advanced Electromagnetics Symposium (AES), Lizbon, Portekiz, 24 - 26 Temmuz 2019
- **An Efficient Domain Cascading Approach for Linear Discontinuous Galerkin Schemes**
Doğan D., KUZUOĞLU M.
European Conference on Antennas and Propagation (EuCAP), Londra, İngiltere, 9 - 13 Nisan 2018
- **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, Amerika Birleşik Devletleri, 9 - 14 Temmuz 2017, ss.1837-1838
- **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, Amerika Birleşik Devletleri, 9 - 14 Temmuz 2017, ss.2373-2374
- **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, Amerika Birleşik Devletleri, 9 - 14 Temmuz 2017, ss.1581-1582
- **Numerical Modeling of Electromagnetic Scattering from Periodic Structures by Transformation Electromagnetics**
ÖZGÜN Ö., KUZUOĞLU M.
10th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics (METAMATERIALS), Chania, Yunanistan, 19 - 22 Eylül 2016, ss.259-261
- **A Microwave Imaging Method based on Transformation Electromagnetics**

KUZUOĞLU M., ÖZGÜN Ö.

10th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics (METAMATERIALS), Chania, Yunanistan, 19 - 22 Eylül 2016, ss.262-264

● **A Hybrid Perturbational and Transformational Electromagnetics Approach for Modeling Rough Surface Scattering Problems**

KUZUOĞLU M., ÖZGÜN Ö.

● IEEE International Symposium on Antennas and Propagation / USNC/URSI National North American Radio Science Meeting, Vancouver, Kanada, 19 - 24 Temmuz 2015, ss.282-283

● **Modeling Electromagnetic Scattering from Random Array of Objects by Form Invariance of Maxwell's Equations**

ÖZGÜN Ö., KUZUOĞLU M.

● IEEE International Symposium on Antennas and Propagation / USNC/URSI National North American Radio Science Meeting, Vancouver, Kanada, 19 - 24 Temmuz 2015, ss.284-285

● **Analysis of Scattering from Perfect Electric Conducting Cylinders by Spectral Element Method**

Mahariq I., ARPACI İ., KUZUOĞLU M.

● Computational Electromagnetics International Workshop (CEM), İzmir, Türkiye, 1 - 04 Temmuz 2015, ss.22-23

● **Parabolic Equation Toolbox for Radio Wave Propagation**

ÖZGÜN Ö., Apaydin G., KUZUOĞLU M., SEVGİ L.

● USNC-URSI Radio Science Meeting (Joint with AP-S Symposium) Proceedings, Vancouver, Kanada, 19 Temmuz 2015, ss.259

● **Modeling and Predicting Surface Roughness via Transformation Optics**

Ozgun O., KUZUOĞLU M.

● 8th International Congress on Advanced Electromagnetic Materials in Microwaves and Optics (Metamaterials), Copenhagen, Danimarka, 25 - 28 Ağustos 2014

● **Continuous-time Nonlinear Estimation Filters Using UKF-aided Gaussian Sum Representations**

Gokce M., KUZUOĞLU M.

● 16th International Conference on Information Fusion (FUSION), İstanbul, Türkiye, 9 - 12 Temmuz 2013, ss.2097-2102

● **How Generous is the ELLPACK Sparse Matrix Storage Scheme for Finite Element Computations**

Akinci G., YILMAZ A. E. , KUZUOĞLU M.

● 9th International Conference on Electronics Computer and Computation (ICECCO 2012), Ankara, Türkiye, 1 - 03 Kasım 2012, ss.146-149

● **Reduction of the Staircasing Error in Finite Methods by Using Transformation Media**

KUZUOĞLU M., Ozgun O.

● Progress In Electromagnetics Research Symposium (PIERS), Moscow, Rusya, 19 - 23 Ağustos 2012, ss.707-710

● **Designing Transformation-based Metamaterials for Numerical Modeling of Low Frequency Electromagnetic Scattering**

Ozgun O., KUZUOĞLU M.

● Progress In Electromagnetics Research Symposium (PIERS), Moscow, Rusya, 19 - 23 Ağustos 2012, ss.981-984

● **Numerical Solution of Multi-scale Electromagnetic Boundary Value Problems by Utilizing Transformation-Based Metamaterials**

Ozgun O., KUZUOĞLU M.

● 11th International Conference on Computational Science and Its Applications (ICCSA), Santander, İspanya, 20 - 23 Haziran 2011, cilt.6785, ss.11-25

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

Ozgun O., Mittra R., KUZUOĞLU M.

● 2010 IEEE International Symposium Antennas and Propagation/CNC-USNC/URSI Radio Science Meeting, Toronto, Kanada, 11 - 17 Temmuz 2010

● **Two-way Split-Step Fourier and Finite Element based Parabolic Equation Propagation Tools: Comparisons and Calibration**

Apaydin G., Ozgun O., KUZUOĞLU M., Sevgi L.

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

● **Finite Element/Dipole Moment Method for Efficient Solution of Multiscale Electromagnetic Problems**

Ozgun O., Mittra R., KUZUOĞLU M.

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

● **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 Antennas and Propagation/CNC-USNC/URSI Radio Science Meeting, Toronto, Kanada, 11 - 17 Temmuz 2010

● **Transformation Media for Efficient Numerical Modeling of Finite Methods**

KUZUOĞLU M., Ozgun O.

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

● **Use of Matrix Pade Approximation in the Analysis of Irregularly Shaped Patch Antennas with Multiport Network Model**

Sener G., ALATAN L., KUZUOĞLU M.

International Conference on Electromagnetics in Advanced Applications (ICEAA 2009), Torino, İtalya, 14 - 18 Eylül 2009, ss.630-631

● **A Version of the Characteristic Basis Finite Element Method (CBFEM) by Utilizing Physical Optics for Large-scale Electromagnetic Problems**

Ozgun O., Mittra R., KUZUOĞLU M.

IEEE Antennas and Propagation International Symposium /USNC/URSI National Radio Science Meeting, South-Carolina, Amerika Birleşik Devletleri, 1 - 05 Haziran 2009, ss.497-498

● **A Non-iterative Domain Decomposition Method for Finite Element Analysis of 3D Electromagnetic Scattering Problems**

Ozgun O., KUZUOĞLU M.

IEEE Antennas-and-Propagation-Society International Symposium, California, Amerika Birleşik Devletleri, 5 - 11 Temmuz 2008, ss.4142-4145

● **Design of Irregularly Shaped Patch Antennas by using the Multiport Network Model**

Sener G., ALATAN L., KUZUOĞLU M.

IEEE Antennas-and-Propagation-Society International Symposium, California, Amerika Birleşik Devletleri, 5 - 11 Temmuz 2008, ss.4359-4360

● **Electromagnetic Reshaping via Anisotropic Metamaterials**

Ozgun O., KUZUOĞLU M.

IEEE Antennas-and-Propagation-Society International Symposium, California, Amerika Birleşik Devletleri, 5 - 11 Temmuz 2008, ss.3259-3262

● **Characteristic Basis Finite Element Method (CBFEM) - A Non-iterative Domain Decomposition Finite Element Algorithm for Solving Electromagnetic Scattering Problems**

Ozgun O., Mittra R., KUZUOĞLU M.

IEEE Antennas-and-Propagation-Society International Symposium, California, Amerika Birleşik Devletleri, 5 - 11 Temmuz 2008, ss.4130-4131

● **Conformal perfectly matched absorbers in finite element mesh truncation**

Kuzuoglu M., Dunder B., Mittra R.

2000 IEEE Antennas-and-Propagation-Society International Symposium, Utah, Amerika Birleşik Devletleri, 16 - 21 Temmuz 2000, ss.1176-1179

● **SOURCE IDENTIFICATION BY LAGRANGE MULTIPLIERS**

KUZUOĞLU M.

IEEE Antennas-and-Propagation-Society International Symposium 1994, Washington, Amerika Birleşik Devletleri,

19 - 24 Haziran 1994, ss.2292-2295

INTERFERENCE CALCULATIONS FOR AN S-CDMA CELLULAR RADIO SYSTEM

TAMK Y., KUZUOGLU M.

7th Mediterranean Electrotechnical Conference (MeleCON 94), Antalya, Türkiye, 12 - 14 Nisan 1994, ss.121-124

Desteklenen Projeler

Koç S. S. , Orguner U., Candan Ç., Demir Ş., Aydın Çivi H. Ö. , Kuzuoğlu M., Öktem S. F. , Diğer Özel Kurumlarca Desteklenen Proje, ÇAFRAD Projesi Teknoloji/Konsept Gösterim Fazı (ÇAFRAD FAZ-1) Projesi, 2014 - 2018