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Turkish Journal of Electrical Engineering and Computer Sciences: ozgur.ergul@tubitak.gov.tr

Experience

- 2016–Present **Associate Professor**, *Department of Electrical and Electronics Engineering, Middle East Technical University, Ankara, Turkey*
- 2013–Present **Principle Investigator**, *Computational Electromagnetics at METU (CEMMETU), Middle East Technical University, Ankara, Turkey*
- 2013–2016 **Assistant Professor**, *Department of Electrical and Electronics Engineering, Middle East Technical University, Ankara, Turkey*
- 2009–2012 **Assistant Professor / Lecturer**, *Department of Mathematics and Statistics, University of Strathclyde, Glasgow, UK*
- 2009–2012 **Lecturer**, *Centre for Numerical Algorithms and Intelligent Software (NAIS), UK*
- 2005–2009 **Research Assistant**, *Computational Electromagnetics Research Center (BiLCEM), Bilkent University, Ankara, Turkey*
- 2001–2009 **Teaching Assistant**, *Department of Electrical and Electronics Engineering, Bilkent University, Ankara, Turkey*
- 2001–2005 **Research Assistant**, *Computational Electromagnetics Group, Bilkent University, Ankara, Turkey*
- 1999–2001 **Undergraduate Project Student**, *Computational Electromagnetics Group, Bilkent University, Ankara, Turkey*

Education

- 2011–2012 **P.G. Study**, *University of Strathclyde, Glasgow, UK*
Certificate in Advanced Academic Studies
- 2003–2009 **Ph.D. Student**, *Bilkent University, Ankara, Turkey*
Ph.D. in Electrical and Electronics Engineering, Full Scholarship
Thesis Title: Accurate and Efficient Solutions of Electromagnetics Problems with the Multilevel Fast Multipole Algorithm
Supervisor: Prof. Levent Gürel
GPA: 3.88/4.00

- 2001–2003 **M.S. Student**, *Bilkent University*, Ankara, Turkey
M.S. in Electrical and Electronics Engineering, Full Scholarship
Thesis Title: Fast Multipole Method for the Solution of Large Electromagnetic Scattering Problems
Supervisor: Prof. Levent Gürel
GPA: 3.91/4.00
- 1996–2001 **B.Sc. Student**, *Bilkent University*, Ankara, Turkey
B.Sc. in Electrical and Electronics Engineering, Full Scholarship
B.Sc. Project: Design of Log-Periodic Antennas in Electromagnetic Simulation Environment
Supervisor: Prof. Levent Gürel
GPA: 3.72/4.00
- 1993–1996 *Içel Science High School*, İçel, Turkey
Graduation Rank: 2

Industrial Experience

- 2015–2016 **Partner**, *KAMATEK (Startup Company)*, Ankara, Turkey
2013–2015 **Founder CEO**, *KAMATEK (Startup Company)*, Ankara, Turkey

Honors & Awards

- 2018 EurAAP Leopold B. Felsen Award for Excellence in Electrodynamics (International)
2017 IEEE Turkey Section Research Incentive Award (National)
2015 Turkish Academy of Sciences (TUBA) Young Scientist Award (National)
2014 METU Young Scientist Award (Institutional)
2014 Parlar Foundation Instructor of the Year Award (Institutional)
2014 TUBITAK Incentive Award (National)
2014–2017 METU International Journal Publication Award for 15 Papers (Institutional)
2013–2014 METU International Book Publication Award for 3 Books (Institutional)
2013 Parlar Foundation Research Incentive Award (National)
2013 Science Academy Young Scientist Award (National)
2013 The Applied Computational EM Society (ACES) Early Career Award (International)
2011 URSI Young Scientist Award (International)
2010 Serhat Ozyar Young Scientist of the Year Award (National)
2007 Leopold B. Felsen Award for Excellence in Electrodynamics (International)
2007 IEEE Antennas and Propagation Society Graduate Fellowship (International)
2007 TUBITAK Support for Attending an International Conference (National)
2006–2015 TUBITAK International Journal Publication Awards for 34 Papers (National)
2006–2009 Bilkent University Journal Publication Awards for 22 Papers (Institutional)
2006 Best Presentation, IEEE Bilkent Student Branch, Grad. Research Conf. (Institutional)
2005 Best Presentation, IEEE Bilkent Student Branch, Presentation Days (Institutional)
2004–2008 TUBITAK-BAYG Ph.D. Scholarship (National)
2004 2nd Best Presentation, IEEE Bilkent Student Branch, Presentation Days (Institutional)
2004 Best Presentation, URSI-Turkey 2004 Conference (National)
2003 Best Presentation, IEEE Bilkent Student Branch, Presentation Days (Institutional)
2002 2nd Best Presentation, IEEE Bilkent Student Branch, Presentation Days (Institutional)

- 1997–2001 Bilkent University High Honor Certificates (8 Semesters, Institutional)
 1996 OYS, Turkey Nationwide Exam: 38th (Science) & 40th (Math) / 1.5 million student

Grants & Projects

- 2017–2018 PI: Optimizations of Inkjet Antennas for Radio-Frequency Identification Applications (RaTIO), TUBITAK-1002 (National)
- 2017–2018 PI: Simulations and Optimizations of Nanoantenna Geometries for Efficient Energy Harvesting and Sensing Applications, METU-BAP (Institutional)
- 2016–2019 PI: Fast and Accurate RCS Analysis Software Development (FARAD), Industrial (National)
- 2015–2017 PI: Accurate Electromagnetic Analysis and Optimizations of Photonic Crystals Involving Dielectric Rods (DEMOS), TUBITAK-1001 (National)
- 2015–2017 RA: Electromagnetic Modeling, Simulation, and Solution Methods – Three-Dimensional Security Radar, ASELSAN (National)
- 2015–2017 PI: Development of Full-Wave Electromagnetic Solvers for Designing Filters in Satellite Communication Systems – Design of X-Band IMUX and OMUX for Satellite Communication Systems, ASELSAN (National)
- 2015–2017 RA: Expanding the Scope of Exponentially Convergent and Numerically Stable Two/Two-and-Half Dimensional Time Harmonic Scattering and Waveguide Models Using Genetic Algorithms, TUBITAK-3001 (National)
- 2015–2016 Supervisor: Design, Simulation and Fabrication of Reconfigurable Paper-Based Inkjet Antennas for Radio-Frequency-Identification Applications, TUBITAK-2209 (National)
- 2014–2015 PI: Design and Fabrication of Inkjet Antennas for Radio Frequency Identification Applications, TUBITAK-1512 (National)
- 2013–2016 PI: Realistic, Fast, and Accurate Simulations of Optical Metamaterials (OMeGA), TUBITAK-3501 (National)
- 2013–2015 PI: Simulations of Microwave Systems for Reliable Diagnosis of Breast Cancer, METU-BAP (Institutional)
- 2013–2015 RA: Developing Fast and Reliable Specific Absorption Rate and Heat Solvers for Magnetic Resonance Imaging, TUBITAK-3501 (National)
- 2013–2014 PI: Overcoming Low-Frequency Breakdowns in Numerical Solutions of Electromagnetics Problems (EPSiLON), TUBITAK-1002 (National)
- 2011–2012 PI: Fast and Accurate Electromagnetic Analysis of Metamaterials With Parallel Multilevel Fast Multipole Algorithm, Overseas Travel Grant, EPSRC (National)
- 2009–2010 PI: Research Starter Grant, Faculty of Science, Strathclyde University (Institutional)
- 2007–2009 Scholarship: Solution of the Largest Integral Equations in Electromagnetics (EBEMID), TUBITAK-1001 (National)
- 2006–2009 Scholarship: Parallel Electromagnetic Computations for Modeling of Nano-Optical Imaging Systems (PEMNOS), TUBITAK-1001 (National)
- 2006–2009 Scholarship: Radar Cross Section Computations, Government and Industry (National)

Academic/Research Visits

- 2012, May–June BiLCEM, Ankara, Turkey
 2012, April BiLCEM, Ankara, Turkey
 2012, January BiLCEM, Ankara, Turkey

2011, January BiLCEM, Ankara, Turkey
2010, October University of Extremadura, Caceres, Spain

Technical Works

2018-Present Member, Applied Computational Electromagnetics Society (ACES) Board of Directors
2017-Present Editor-in-Chief, Turkish Journal of Electrical Engineering and Computer Sciences
2016-Present Chair, IEEE AP/MTT/EMC/ED Turkey Chapter
2015-Present Associate Editor and Column Writer, Solution Box Column
The Radio Science Bulletin
2013-Present Editorial Board Member
Scientific Reports (Nature Publishing Group)
2012-Present Associate Editor and Column Writer, Open Problems in CEM Column
IEEE Antennas and Propagation Magazine
2012-Present Editorial Board Member
The International Journal of Science and Technology (IJST)
2018 Co-Organizer
Session: Integral Equation Solvers for Real-Life Applications
2018 International Applied Computational Electromagnetics Society (ACES) Symposium, Denver, USA
2017 Co-Organizer
Session: Frequency and Time Domain Integral Equation Solvers
2017 International Applied Computational Electromagnetics Society (ACES) Symposium, Firenze, Italy
2016 Technical Program Chair
URSI-Turkey 2016 Scientific Conference and National General Assembly (URSI-TR'2016), Ankara, Turkey
2016 Co-Organizer
Session: Present and Future Challenges in Computational Electromagnetics
International Symposium on Electromagnetic Theory (EMTS 2016), Espoo, Finland
2016 Co-Chair/Organizer
EEE Graduate Research Workshop (GRW-2016)
Middle East Technical University, Ankara, Turkey
2015 Co-Organizer
Session: Recent Advances in Numerical and Computational Electromagnetics
European Conference on Numerical Mathematics and Advanced Applications (ENUMATH-2015), Ankara, Turkey
2015 Organization Committee Member
Fourth National High-Performance Computing Conference, Ankara, Turkey
2015 Co-Chair/Organizer
EEE Graduate Research Workshop (GRW-2015)
Middle East Technical University, Ankara, Turkey
2014 Co-Chair/Organizer
EEE Graduate Research Writing and Presentation Workshop (GRWPW-2014)
Middle East Technical University, Ankara, Turkey
2013 Co-Organizer
Parallel Implementations for Solving Electromagnetics Problems
2013 ACES Conference, Monterey, USA
2011 Technical Program and Publication Chair
Computational EM International Workshop (CEM'11), Izmir, Turkey
2011 Workshop Chair
Workshop on Advanced Techniques in Computational EM (AT-CEM'11), Glasgow, UK

- 2009 Technical Program Manager
Computational EM International Workshop (CEM'09), Izmir, Turkey
- 2008 Organization Committee Member
IEEE Graduate Research Conference
Bilkent University, Ankara, Turkey
- 2007 Technical Committee Member
Computational EM International Workshop (CEM'07), Izmir, Turkey
- 2007–2009 Secretary of Commission E (Electromagnetic Noise and Interference)
of URSI Turkey National Committee
- Reviews for IEEE Transactions on Antennas and Propagation (45 papers)
IEEE Antennas and Wireless Propagation Letters (27 letters)
PIER&JEMWA (24 papers)
International Journal of Antennas and Propagation (22 papers)
IEEE Transactions on Microwave Theory and Techniques (6 papers)
ACES Journal (5 papers)
Radio Science (4 papers)
International Journal of Numerical Modeling: Electronic Networks, Devices and Fields (4 papers)
Optics Letters (3 letters)
Mathematical Problems in Engineering (3 papers)
Optics Express (3 letters)
IEEE Antennas and Propagation Magazine (3 paper)
IEEE Proceedings (2 papers)
Electronics Letters (2 letters)
Neural Computing and Applications (2 papers)
IEEE Access (1 paper)
Journal of Optical Society of America A (1 paper)
SIAM Journal on Scientific Computing (1 paper)
Journal of Computational Physics (1 paper)
Journal of Lightwave Technology (1 paper)
Computer Physics Communications (1 paper)
IET Image Processing (1 paper)
PLOS ONE (1 paper)
IEEE Transactions on Electromagnetic Compatibility (1 letter)
Waves in Random and Complex Media (1 paper)
ACES Letter (1 paper)
International Journal of Applied Electromagnetics and Mechanics (1 paper)
Journal of Quantitative Spectroscopy and Radiative Transfer (1 paper)
Journal of Electronic Imaging (1 paper)
Journal of Applied Mathematics (1 paper)
International Journal of Electrical Engineering Education (1 paper)
International Journal of Physical Sciences (1 paper)
The Scientific World Journal (1 paper)
Turkish Journal of Electrical Engineering and Computer Sciences (1 paper)
International Journal of RF and Microwave Computer-Aided Engineering (1 paper)
Springer Lecture Notes in Computational Science and Engineering (1 paper)
Photonic Network Communications (1 paper)
Computers and Geoscience (1 paper)
Advances in Materials Science and Engineering (1 paper)
Radioengineering (1 paper)
Disaster Advances (1 paper)
International Conferences (82 papers)
Funding Bodies and Foundations (21 projects)
International Book Proposals (1 proposal)
National Conferences (3 papers)
Industrial Companies (1 company)

Seminars & Invited Talks

- 2015, November Computational Analysis of Plasmonic Structures Using the Multilevel Fast Multipole Algorithm, Department of Electrical and Electronics Engineering, Bilkent University, Ankara, Turkey
- 2015, April The Multilevel Fast Multipole Algorithm for Solving Complex Problems in Electromagnetics, Institute of Applied Mathematics, Middle East Technical University, Ankara, Turkey
- 2014, October Applications of MLFMA in Computational Electromagnetics, Department of Electronics Engineering, Gebze Institute of Technology, Kocaeli, Turkey
- 2014, May A New Era in Computational Electromagnetics: Mixed-Precision Arithmetic, Department of Electrical and Electronics Engineering, Bilkent University, Ankara, Turkey
- 2014, March Fast Full-Wave Solutions of Realistic Metamaterial Structures, The Ninth International Conference on Computation in Electromagnetics (CEM 2014), London, UK
- 2013, December Computational Electromagnetics: Radars, Antennas, and Metamaterials, Middle East Technical University, Ankara, Turkey
- 2012, June A Multidisciplinary Approach for Solving Electromagnetics Problems: Multilevel Fast Multipole Algorithm on Multiprocessor Computers, Middle East Technical University, Ankara, Turkey
- 2012, May Computational Electromagnetics in Informatics Age: An Exciting Road From Modeling to Parallelization, TOBB University of Economics and Technology, Ankara, Turkey
- 2012, April When/Why/How to Solve Ultra Large-Scale Electromagnetics Problems (Without Breaking Down the Computer)?, Bilkent University, Ankara, Turkey
- 2011, November Extreme Computational Electromagnetics: Solutions of Ultra Large-Scale Problems, CHASOC Seminars, University of St Andrews, St Andrews, UK
- 2011, October Some Recent Advances in Computational Electromagnetics: Solutions of Large-Scale Problems Discretized With Hundreds of Millions of Unknowns, Numerical Analysis and Scientific Computing Seminars, University of Manchester, Manchester, UK
- 2011, September Computational Study of Scattering from Healthy and Diseased Red Blood Cells, BBTS 29th Annual Conference, Glasgow, UK
- 2010, October Solutions of Extremely Large Electromagnetics Problems with Parallel Implementations of the Multilevel Fast Multipole Algorithm, University of Extremadura, Caceres, Spain
- 2009, November Solutions of Extremely Large Electromagnetics Problems Involving Hundreds of Millions of Unknowns: Current and Future Aspects, Mathematics Colloquia, University of Strathclyde, Glasgow, UK
- 2009, September Efficient and Accurate Solutions of Large-Scale Electromagnetics Problems Using the Multilevel Fast Multipole Algorithm, 18th Scottish Computational Mathematics Symposium, Edinburgh, UK
- 2009, April Solutions of Real-Life Problems Discretized with Hundreds of Millions of Unknowns in Electromagnetics, Department of Mathematics, University of Strathclyde, Glasgow, UK
- 2009, February World Record in Computational Electromagnetics: Solutions of Equations Involving Hundreds of Millions of Unknowns, IEEE Student Branch, Yıldız Teknik University, Istanbul, Turkey
- 2009, February World Record in Computational Electromagnetics, IEEE Student Branch, Hacettepe University, Ankara, Turkey
- 2008, December Fast and Accurate Solutions of Very Large Electromagnetics Problems with the Parallel Multilevel Fast Multipole Algorithm, Computational Electromagnetics Laboratory, Darmstadt University of Technology, Darmstadt, Germany
- 2006, December Accurate and Efficient Solutions of Large Problems in Computational Electromagnetics, Department of Electrical and Electronics Engineering, Bilkent University, Ankara, Turkey
- 2005, December Fast and Accurate Solutions of Large Problems of Computational Electromagnetics, Department of Electrical and Electronics Engineering, Bilkent University, Ankara, Turkey
- 2004, December Fast and Accurate Solutions of the Electromagnetic Scattering Problems, Department of Electrical and Electronics Engineering, Bilkent University, Ankara, Turkey

Research Lecture Series

- 2016, Oct. Department of Electrical and Electronics Eng., Middle East Technical University, Ankara, Turkey
Introduction to the Multilevel Fast Multipole Algorithm
- 2015, April-May Department of Electrical and Electronics Eng., Middle East Technical University, Ankara, Turkey
Implementation of the Multilevel Fast Multipole Algorithm
- 2014, May Department of Electrical and Electronics Eng., Middle East Technical University, Ankara, Turkey
Introduction to the Multilevel Fast Multipole Algorithm
- 2013, April Department of Electrical and Electronics Eng., Middle East Technical University, Ankara, Turkey
The Multilevel Fast Multipole Algorithm
- 2012, April BiLCEM, Bilkent University, Ankara, Turkey
Programming the Parallel Multilevel Fast Multipole Algorithm
- 2012, January BiLCEM, Bilkent University, Ankara, Turkey
Solutions of Electromagnetics Problems with the Multilevel Fast Multipole Algorithm
- 2010, February University of Strathclyde, Glasgow, UK
Introduction to MPI and Its Application to the Finite Element Method
- 2009, August BiLCEM, Bilkent University, Ankara, Turkey
Programming the Multilevel Fast Multipole Algorithm
- 2008, June BiLCEM, Bilkent University, Ankara, Turkey
From Maxwell's Equations to the Multilevel Fast Multipole Algorithm
- 2007, June BiLCEM, Bilkent University, Ankara, Turkey
From Maxwell's Equations to the Multilevel Fast Multipole Algorithm
- 2003, October CEM Group, Bilkent University, Ankara, Turkey
The Multilevel Fast Multipole Algorithm

Other Talks

- 2010, June Parallelization of the Multilevel Fast Multipole Algorithm for Accurate Solutions of Extremely Large Electromagnetics Problems, NAIS 2010: New Algorithms for the Evolving HPC Platform, Edinburgh, UK
- 2010, January Rigorous Solutions of Electromagnetics Problems with Parallel Implementations of the Multilevel Fast Multipole Algorithm, NAIS Technical Kick-off Meeting, Edinburgh, UK

Thesis Supervision (Middle East Technical University)

- 2018, Feb. Uğur Meriç Gür, MS Thesis, Solutions of Novel Potential-Based Formulations Using the Multilevel Fast Multipole Algorithm
- 2016, Aug. Feza Mutlu, MS Thesis, Design, Simulation, and Fabrication of Low-Cost Inkjet Antennas
- 2015, Sep. Can Önel, MS Thesis, Optimizations of Antennas Using Heuristic Algorithms Supported by The Multilevel Fast Multipole Algorithm

Thesis Co-Supervision

- 2016, Jun. Manouchehr Takrimi, PhD Thesis, Implementation of a Broadband Multilevel Fast Multipole Algorithm for Multiscale Electromagnetics Problems, Bilkent University, Turkey

Teaching (Middle East Technical University)

- 2017, Fall Research Methods and Ethics
- 2017, Fall Graduate Seminars
- 2017, Spring Electromagnetic Theory
- 2017, Spring Research Methods and Ethics
- 2016, Fall Electromagnetic Waves
- 2016, Fall Fundamentals of Electrical and Electronics Engineering
- 2016, Spring Electromagnetic Theory
- 2015, Fall Electromagnetic Waves

2015, Fall Fundamentals of Electrical and Electronics Engineering
2015, Spring Electromagnetic Theory
2014, Fall Fundamentals of Electrical and Electronics Engineering
2014, Fall Seminar
2014, Spring Electromagnetic Theory
2014, Spring Fundamentals of Electrical and Electronics Engineering
2013, Fall Seminar
2013, Fall Fundamentals of Electrical and Electronics Engineering
2013, Spring Electromagnetic Theory
2013, Spring Fundamentals of Electrical and Electronics Engineering

Teaching (University of Strathclyde)

2012, Spring Mathematical and Statistical Computing
2011, Fall Mathematics
2011, Spring Mathematical and Statistical Computing
2011, Spring Numerical Linear Algebra
2010, Fall Mathematics
2010, Spring Numerical Linear Algebra
2009, Fall Mathematics

Teaching Assistantship (Bilkent University)

2009, Spring Engineering Electromagnetics
2008, Fall Advanced Electromagnetic Theory
2008, Spring Introduction to Electrical and Electronics Engineering
2007, Fall Foundations of Magnetic Resonance Imaging
2007, Spring Antenna Engineering
2006, Fall Engineering Electromagnetics
2006, Spring Antenna Engineering
2005, Fall Electronic Circuit Design – as a coordinator
2005, Spring Electronic Circuit Design
2004, Fall Electronic Circuit Design – as a coordinator
2004, Spring Antenna Engineering
2003, Fall Electronic Circuit Design
2003, Spring Antennas and Propagation
2003, Spring Electromagnetic Theory
2002, Fall Electromagnetic Theory
2002, Spring Antennas and Propagation
2001, Fall Microwave Engineering

Other Scientific and Technical Works

2017, Nov. Member, Examining Committee, Aslı Eda Aydemir's MS Thesis, Middle East Technical University, Ankara, Turkey
2017, Nov. Member, Examining Committee, Serkan Karadağ's MS Thesis, Middle East Technical University, Ankara, Turkey
2017, Jul. Coordinator, EMT MS/PhD Recruitment Committee, Middle East Technical University, Ankara, Turkey
2016, Dec. Member, Award Referee, The Applied Computational EM Society (ACES)
2016, Dec. Member, Examining Committee, Alper Ünal's MS Thesis, Hacettepe University, Ankara, Turkey

- 2016, Sep. Technical Session Chair, 8th URSI-Turkey 2016 Scientific Conference and National General Assembly (URSI-TR'2016), Ankara, Turkey
- 2016–2017 Member, Supervising Committee, Ehsan Kazemi's PhD Thesis, Bilkent University, Ankara, Turkey
- 2016, May Member, Examining Committee, Alireza Sadeghi Tarakameh's MS Thesis, Bilkent University, Ankara, Turkey
- 2015, Dec. Member, Examining Committee, Sevda Balk Özdemir's MS Thesis, Hacettepe University, Ankara, Turkey
- 2015, Sep. Technical Session Chair, The 3rd Electromagnetic Compatibility Conference, İstanbul, Turkey
- 2015, Aug. Member, Examining Committee, Hamza Ergüder's MS Thesis, Turgut Özal University, Ankara, Turkey
- 2015, Aug. Member, Examining Committee, Ahmet Akkoç's MS Thesis, Middle East Technical University, Ankara, Turkey
- 2015, Apr. Member, Commission of Techno-Enterprise Industry Grant, Ministry of Science, Industry and Technology, Turkey
- 2014–2017 Member, Supervising and Examining Committee, Hasan Hüseyin Eroğlu's PhD Thesis, Middle East Technical University, Ankara, Turkey
- 2014–2017 Member, Supervising and Examining Committee, Bilge Can Yıldız Karakul's PhD Thesis, Middle East Technical University, Ankara, Turkey
- 2014–2016 Member, Supervising Committee, Mete Günöven's PhD Thesis, Middle East Technical University, Ankara, Turkey
- 2014–2015 Member, Supervising Committee, Orkun Tanık's PhD Thesis, Middle East Technical University, Ankara, Turkey
- 2014, Dec. Member, Examining Committee, Volkan Açikel's PhD Thesis, Bilkent University, Ankara, Turkey
- 2014, Dec. Member, Award Referee, The Applied Computational EM Society (ACES)
- 2014, Dec. Member, PhD Qualification Committee, Middle East Technical University, Ankara, Turkey
- 2014, May Member, PhD Qualification Committee, Middle East Technical University, Ankara, Turkey
- 2014, Apr. Referee, 2014 Efficiency Project Awards, Ministry of Science, Industry and Technology, Turkey
- 2014, Mar. Referee, Serhat Ozyar Young Scientist of the Year Award, Turkey
- 2014, Feb. Member, Examining Committee, Abdülkerim Altıntaş's MS Thesis, Middle East Technical University, Ankara, Turkey
- 2014, Jan. Member, Examining Committee, Erdinç Erçil's PhD Thesis, Middle East Technical University, Ankara, Turkey
- 2013–2014 Member, Examining Committee, Öznur Türkmen Küçükşarı's PhD Thesis, Middle East Technical University, Ankara, Turkey
- 2013–2014 Member, Examining Committee, Halil İbrahim Atasoy's PhD Thesis, Middle East Technical University, Ankara, Turkey
- 2013–2014 Member, Online Education Committee, Faculty of Engineering, Middle East Technical University, Ankara, Turkey
- 2013, Nov. Panelist, TUBITAK, Ankara, Turkey
- 2013, Aug. External Examiner, Barışcan Karaosmanoğlu's MS Thesis, Bilkent University, Ankara, Turkey
- 2011, Nov. Convener, Jennifer Dent's PhD Viva, University of Strathclyde, Glasgow, UK
- 2011, Apr. Attendee, Meeting on Computational Challenges in Partial Differential Equations, Swansea, UK
- 2011, Feb. Attendee, Science and Innovation Evaluation Theme Day, Birmingham, UK
- 2011, Feb. External Reviewer, Masroor Hussain's PhD Thesis, Ghulam Ishaq Khan Institute of Engineering Sciences and Technology, Topi, Pakistan
- 2010, May Convener, Triani Stari's PhD Viva, University of Strathclyde, Glasgow, UK

Membership

2014–Present	The Optical Society (OSA) Member
2013–Present	IEEE Senior Member
2012–Present	ACES Member
2007–Present	TMMOB Electrical Engineers Society
2003–Present	IEEE Microwave Theory and Techniques Society Member
2001–Present	IEEE Antennas and Propagation Society Member
2009–2012	IEEE Member
2000–2001	IEEE Electromagnetic Compatibility Society Member
1999–2008	IEEE Student Member

Scientific Interests

Electromagnetic scattering and radiation, integral equations, fast algorithms, multilevel fast multipole algorithm, parallelization, high-performance computing, iterative methods, optic and plasmonic problems, radar cross section, broadband antennas, metamaterials, genetic algorithms.

Personal

Birth Date 16/05/1978

Publications

Books

- [1] Ö. Ergül, *Introduction to Electrical Circuit Analysis*. Wiley, 2017.
- [2] Ö. Ergül and L. Gürel, *The Multilevel Fast Multipole Algorithm (MLFMA) for Solving Large-Scale Computational Electromagnetics Problems*. Wiley-IEEE, 2014.
- [3] Ö. Ergül, *Guide to Programming and Algorithms Using R*. London: Springer, 2013.

Book Chapters

- [4] H. Aykut Şatana, B. Karaosmanoğlu, and Ö. Ergül, "A comparative study of nanowire arrays for maximum power transmission," in *Nanowires*, K. Maaz, Ed. InTech, 2017, pp. 233–253.
- [5] A. Çekinmez, B. Karaosmanoğlu, and Ö. Ergül, "Integral-equation formulations of plasmonic problems in the visible spectrum and beyond," in *Dynamical Systems - Analytical and Computational Techniques*, M. Reyhanoglu, Ed. InTech, 2017, pp. 191–214.

Journal Papers

- [6] Ş. Yazar, C. G. Sür, B. Solak, Ö. Eroğlu, A. Altınoklu, S. Güler, U. M. Gür, B. Karaosmanoğlu, and Ö. Ergül, "Efficient and accurate electromagnetic analysis of three-dimensional nano-optical structures," *Materials Science Forum*, vol. 915, pp. 202–206, Mar. 2018.
- [7] G. Karaova, A. Altınoklu, and Ö. Ergül, "Full-wave electromagnetic optimisation of corrugated metallic reflectors using a multigrid approach," *Sci. Rep.*, vol. 8, no. 1267, Jan. 2018.
- [8] H. İbili, B. Karaosmanoğlu, and Ö. Ergül, "Demonstration of negative refractive index with low-cost inkjet-printed microwave metamaterials," *Microw. Opt. Technol. Lett.*, vol. 60, no. 1, pp. 187–191, Jan. 2018.

- [9] C. Öno1, A. Üçüncü, and Ö. Ergül, "Efficient multilayer iterative solutions of electromagnetic problems using approximate forms of the multilevel fast multipole algorithm," *IEEE Antennas Wireless Propag. Lett.*, vol. 16, pp. 3253–3256, 2017.
- [10] F. Mutlu, C. Öno1, B. Karaosmanođlu, and Ö. Ergül, "Inkjet-printed cage-dipole antennas for radio-frequency applications," *IET Microwaves, Antennas & Propagation*, vol. 11, no. 14, pp. 2016–2020, Nov. 2017.
- [11] B. Karaosmanođlu, S. Küçük, and Ö. Ergül, "Fine-tuning snowflake fractal antennas," *Int. J. Numer. Model.*, vol. 30, no. 6, e2212, Nov./Dec. 2017.
- [12] U. M. Gür and Ö. Ergül, "Accuracy of sources and near-zone fields when using potential integral equations at low frequencies," *IEEE Antennas Wireless Propag. Lett.*, vol. 16, pp. 2783–2786, 2017.
- [13] M. Takrimi, Ö. Ergül, and V. B. Ertürk, "Incomplete-leaf multilevel fast multipole algorithm for multiscale penetrable objects formulated with volume integral equations," *IEEE Trans. Antennas Propag.*, vol. 65, no. 9, pp. 4914–4918, Sep. 2017.
- [14] Y. E. Tunçyürek, B. Karaosmanođlu, and Ö. Ergül, "Computational design of optical couplers for bended nanowire transmission lines," *ACES J.*, vol. 32, no. 7, pp. 562–568, Jul. 2017.
- [15] B. Karaosmanođlu, A. Yılmaz, and Ö. Ergül, "A comparative study of surface integral equations for accurate and efficient analysis of plasmonic structures," *IEEE Trans. Antennas Propag.*, vol. 65, no. 6, pp. 3049–3057, Jun. 2017.
- [16] B. Karaosmanođlu and Ö. Ergül, "Generalized hybrid surface integral equations for finite periodic perfectly conducting objects," *IEEE Antennas Wireless Propag. Lett.*, vol. 16, pp. 1068–1071, 2017.
- [17] B. Karaosmanođlu and Ö. Ergül, "EFIE-tuned testing functions for MFIE and CFIE," *IEEE Antennas Wireless Propag. Lett.*, vol. 16, pp. 968–970, 2017.
- [18] A. Altınoklu, B. Karaosmanođlu, and Ö. Ergül, "Electromagnetic optimizations of corrugated metallic sheets for maximum power focusing," *J. Electromagn. Waves Appl.*, vol. 31, no. 8, pp. 837–849, Apr. 2017.
- [19] S. Güler, B. Karaosmanođlu, and Ö. Ergül, "Design, simulation, and fabrication of a novel type of inkjet-printed pixel antennas," *PIER Lett.*, vol. 64, pp. 51–55, Nov. 2016.
- [20] B. Karaosmanođlu, A. Altınoklu, and Ö. Ergül, "Numerical constructions of testing functions for improving the accuracy of MFIE and CFIE," *Prog. Electromagn. Res. M*, vol. 51, pp. 63–70, Oct. 2016.
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