

ATEF Z. ELSHERBENI

IEEE Fellow (2007) and ACES Fellow (2008)

Refereed Journal Publications: (Total 225 Publications)

In Preparation

- Si Li; Wenxing Li; Atef Z. Elsherbeni; Wenhua Yu; Yunlong Mao, A Novel Miniaturized Left-Handed Metamaterial Loaded Triple-Band WLAN/WiMAX Antenna, IEEE Transactions on Antennas and Propagations. [Submitted](#)
- Si Li; Wenhua Yu; Atef Z. Elsherbeni; Wenxing Li; Yunlong Mao, A Varactor Loaded Tunable Dual-band Left-Handed Metamaterial, Applied Computational Electromagnetics Society Journal. [Submitted](#)
- Collin T. Kringlen, Atef Z. Elsherbeni, and Jamal Rostami, “High Gain Circularly Polarized Patch Antenna for Communications Between Cutting Tools and the Control Unit of Mining Equipment,” ACES Journal, [Submitted June 2024](#).
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2024

- Kaikun Niu, Wenkai Zhang, Minquan Li, Xingang Ren, Yingsong Li, Zhixiang Huang, Bo Wu, Xianliang Wu, and Atef Z. Elsherbeni, “Transient Electromagnetic–Thermal Co-Simulation of Microwave/RF Integrated Circuits by the HIE-FDTD Method,” IEEE Transactions on Microwave Theory and Techniques, 2024. Early Access
- Guocui Zhu; Kaikun Niu; Minquan Li; Yingsong Li; Xingang Ren; Guoda Xie; Zhixiang Huang; Xianliang Wu; and Atef Z. Elsherbeni, “High-Order ME-CFS-PML Implementations for Terminating the FDTD Domain Composed of Arbitrary Media,” IEEE Transactions on Microwave Theory and Techniques, vol. 72, no. 4, April 2024.
- Naixing Feng, Huan Wang, Yuxian Zhang, Zhixiang Huang, and Atef Z. Elsherbeni, “[Alternative Implementation of EM Propagation for 3-D Layered Lossy Media by SMM Method](#),” IEEE Transactions on Antennas and Propagation, vol. 72, no. 8, pp. 6599-6613, August 2024.
- Yiming Chen, Veysel Demir, Srirama Bhupatiraju, Atef Z. Elsherbeni, Joselito Gavilan, and Kiril Stoyanov, “Prediction of Antenna Performance based on Scalable Data-informed Machine Learning Methods,” Applied Computational Electromagnetics Society (ACES) Journal, vol. 39, no. 4, pp. 275-290, April 2024.
- Matthew J. Dodd and Atef Z. Elsherbeni, “[Design and Implementation of a Printed Circuit Model for a Wideband Circularly Polarized Bow-Tie Antenna](#),” *Electronics*, 13(16), 3323, August 2024. <https://doi.org/10.3390/electronics13163323>

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- Kaikun Niu; Zijin Xiao; Guoda Xie; Xingang Ren; Yingsong Li; Zhixiang Huang; Xianliang Wu; Atef Z. Elsherbeni, “A Stochastic FDTD Algorithm for Uncertainty Quantification of Electromagnetic-Thermal Simulation,” IEEE Transactions on Microwave Theory and Techniques, Early Access, 2023.

- Guoda Xie; Guilin Hou; Ke Xu; Kaikun Niu; Naixing Feng; Yingsong Li; Zhixiang Huang; Atef Z. Elsherbeni, "Extension of FLOD-FDTD Method for Multiterm Modified Lorentz Model," IEEE Transactions on Antennas and Propagation, vol. 71, no. 11, 2023.
- Fatih Kaburcuk, A. Z. Elsherbeni, "Sub-Gridding FDTD Algorithm for 3D Numerical Analysis of EM Scattering and Radiation Problems," Electromagnetic Science Journal, vol. 1, no. 4, article no. 0040342, 2023. doi: 10.23919/emsci.2023.0034
- Zahid Hassan and A. Z. Elsherbeni, "Unified Formulation for Evaluation and Visualization of Electric and Magnetic Fields Inside Waveguides and Cavities," Applied Computational Electromagnetics Society (ACES) Journal, vol. 38, no. 6, June 2023.
- W. Amara, A. Alzahrani, A. Mersani, D. Oueslati, A. Elsharabasy, B. Hakim, H. Rmili, A. Elsherbeni, "Nanarray of Vivaldi Rectenna for Infrared-energy Harvesting," Applied Computational Electromagnetics Society (ACES) Journal, vol. 38, no. 7, 2023.

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- Joshua M. Kast and Atef Z. Elsherbeni, "FDTD Simulation of a Two-Port Nonlinear Device Characterized by its X -Parameters," Progress in Electromagnetics Research C, vol. 122, pp. 1–15, 2022.
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- Fatih Kaburcuk, A. Z. Elsherbeni, "Efficient Electromagnetic Analysis of a Dispersive Head Model Due to Smart Glasses Embedded Antennas at Wi-Fi and 5G Frequencies," Applied Computational Electromagnetics Society (ACES) Journal, vol. 36, no. 2, pp. 159-167, 2021.
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- Alec J. Weiss, Atef Z. Elsherbeni, "Performance of MATLAB and Python for Computational Electromagnetic Problems," Applied Computational Electromagnetics Society (ACES) Journal, vol. 35, no. 7, pp., 2020.
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