

ATEF Z. ELSHERBENI **IEEE Life Fellow and ACES Fellow**

2024

- Atef Elsherbeni, “Electromagnetics for Underground Mining Industry,” 2024 Applied Computational Electromagnetics Society Conference, Xian, China, August 2024. **(Invited Keynote Conference Speaker)**
- Atef Elsherbeni, “Time Domain Simulation of Electromagnetic Problems Combined with Linear and Nonlinear Circuit Elements” ICEAA Conference on Electromagnetics in Advanced Applications and IEEE APWC IEEE-APS Topical Conference on Antennas and Propagation in Wireless Communications, Lisbon, Portugal September, 2024. **(Invited Short Course)**
- Atef Elsherbeni, “Radar Cross-Section of Complex Objects - A Computational Approach,” IEEE International Telecommunications Conference – ITC, Cairo, Egypt, July 2024. **(Invited Short Course)**

2023

- Atef Elsherbeni, “SAR and Temperature Rise in a Human Head due to EM Radiation,” Tampere University of Technology, Tampere, Finland, February 15, 2023.
- Atef elsherbeni, “Accurate Electromagnetics and Antenna Simulations using the Finite Difference Time Domain Method,” 2023 International Symposium on Electronic Information and Communication Technology (ISEICT 2023), Hefei, China, April 17, 2023.
- Atef Elsherbeni, “SAR and Temperature Rise in a Human Head due to EM Radiation,” the 3rd Global Summit of Electronics and Electrical Engineering meeting (V-EEE2023) June 23 – 24, 2023.
- Atef Elsherbeni, “Accurate electromagnetics and antenna simulations using the FDTD method,” International Conference on Electromagnetics in Advanced Applications” IEEE-APS Topical Conference on Antennas and Propagation in Wireless Communications, Venice, Italy, October 13, 2023. **(Invited Short Course)**
- Atef Elsherbeni, “Direct Time Domain Simulation of Nonlinear Microwave Devices Characterized by Their X-Parameters,” 2023 IEEE Conference on Antenna Measurements & Applications, Genoa, Italy, November 16, 2023. **(Invited Keynote Conference Speaker)**
- Atef Elsherbeni, “SAR and Temperature Rise in a Human Head Model due to Electromagnetic Radiation using the FDTD Method,” 2023 IEEE International Symposium on Antennas and propagation, ISAP, Kuala Lumpur, Malaysia, November 1, 2023. **(Invited Keynote Conference Speaker)**
- Atef Elsherbeni, “Direct Time Domain Simulation of Nonlinear Microwave Devices Characterized by Their X-Parameters,” 2023 International Workshop on Antenna, Key Laboratory of Electromagnetic Environmental Sensing of Anhui Higher Education Institutes, Hefei, China, November 27, 2023.

2022

- Atef Elsherbeni, “The RFID System Components and Applications,” Center for Photonics and Smart Materials (CPSM), Zewail City of Science and Technology, Egypt, July 21, 2022.
- Atef Elsherbeni, “Recent Advances in Computational electromagnetics and their applications,” Electronic Research Institute, Egypt, July 24, 2022.
- Atef Elsherbeni, “RFID Systems and Applications” Air Defense College, Alexandria, Egypt, July 27, 2022.
- Atef Elsherbeni, “Computational Electromagnetics with Emphasis on Antenna Designs and their Interaction with Human Head,” Electrical engineering Department Seminar Series, August 2022.



- Atef Elsherbeni, “Direct Time Domain Simulation of Nonlinear Microwave Devices Characterized by Their X-Parameters,” 2022 IEEE 5th International Conference on Electronic Information and Communication Technology, Hefei, China, August 13, 2022.
- Atef elsherbeni, “Antennas, RFID and Computational (ARC) Electromagnetics Research Group Recent Activities,” Army Research Lab, Adelphi, MD, October 24, 2022.
- Atef elsherbeni, “RFID Systems & Applications,” 2022 IEEE Silchar Subsection Conference (IEEE SILCON-2022), National Institute of Technology Silchar, India, November 6, 2022.
- Atef elsherbeni, “SAR and Temperature Rise in a Human Head due to EM Radiation,” Horus University, Dumyat Al Jadidah, Dumyat, Egypt, November 28, 2022.
- Atef Elsherbeni, “Time Domain Simulations of Nonlinear Microwave Devices Using Their X-Parameters,” Air Defense College, Alexandria, Egypt November 28, 2022.
- Atef Elsherbeni, “Time Domain Simulations of Nonlinear Microwave Devices using their X-Parameters,” the Egyptian National Committee of URSI Conference held at the Electronic Research Institute in Egypt, November 30, 2022.
- Atef Elsherbeni, “RFID Systems and Applications,” Innovation Hub, Silicon Waha, New Borg El-Arab City, Alexandria, Egypt, December 1, 2022.
- Atef Elsherbeni, “Time Domain Simulations of Nonlinear Microwave Devices using their X-Parameters,” the 2022 ACES-China Conference, held at Xuzhou, China, December 11, 2022.
- Atef Elsherbeni, “Computational Electromagnetics with Emphasis on Antenna Designs and their Interaction with Human Head,” 2022 10th International Japan-Africa Conference on Electronics, Communications, and Computations (JAC-ECC), Alexandria, Egypt, December 19, 2022.

2021

- Atef Elsherbeni, “Power Transmission using Reflect and Transmit Array Configurations,” IEEE Wireless in Space and Extreme Environments (online), October 2021.
- Atef Elsherbeni, “RFID Systems and Applications,” IEEE APS Chapter Northeast Section, Brazil, July 21, 2021.
- Atef Elsherbeni, “RFID Systems and Applications,” Yıldırım Beyazid University, Ankara, Turkey, September 6, 2021.
- Atef Elsherbeni, “The Effect of Electromagnetic Radiation on Human Tissues with Specific Attention to Human Head,” Kadir Has University, Istanbul, Turkey, September 9, 2021.
- Atef Elsherbeni, “RFID Systems and Applications,” Istanbul Medipol University, Istanbul, Turkey, September 13, 2021.
- Atef Elsherbeni, “Recent Developments in Computational Electromagnetics using The Finite Difference Time Domain Method,” IEEE MTT-S Student Branch Chapter (SBC), NIT Silchar, India, September 18, 2021.
- Atef Elsherbeni, “RFID Systems and Applications,” IEEE AP/MTT/MAG joint Societies, Lebanon, November 9, 2021.
- Atef Elsherbeni, “Recent Developments in Computational Electromagnetics using The Finite Difference Time Domain Method,” King Fahd Petroleum and mineral (KFUPM), Saudi Arabia, November 16, 2021.
- Atef Elsherbeni, “Recent Developments in Computational Electromagnetics using The Finite Difference Time Domain Method,” Tubitak, Istanbul, Turkey, December 8, 2021.

2020

- Atef Elsherbeni, “SAR and Temperature Rise in a Human Head due to Electromagnetic Radiation using the Finite Difference Time Domain Method,” Ottawa Section of the Joint IEEE Chapter APS/MTT, Canada, October 2, 2020.



- Atef Elsherbeni, “SAR and Temperature Rise in a Human Head due to Electromagnetic Radiation using the Finite Difference Time Domain Method,” Victorian Section of the Joint IEEE Chapter APS/MTT, Australia, October 29, 2020.
- Atef Elsherbeni, “Recent Developments in Computational Electromagnetics using The Finite Difference Time Domain Method,” Islamabad Section of the Joint IEEE Chapter APS/MTT, Pakistan, December 2, 2020.
- Atef Elsherbeni, “RFID Systems and Applications,” Kharagpur Section of the Joint IEEE Chapter APS/MTT, India, October 29, 2020.

2019

- Atef Elsherbeni, “Accelerating the FDTD Algorithm on Multiple CPUs/GPUs with MATLAB’s Parallel Computing Toolbox,” Nanjing University, Nanjing, China, March 25, 2019.
- Atef Elsherbeni, “SAR and Temperature Rise in a Human Head due to Electromagnetic Radiation using the Finite Difference Time Domain Method,” Nanjing University, Nanjing, China, March 26, 2019.
- Atef Elsherbeni, “Modeling Cylindrical-Sectoral Structures with the BOR-FDTD Method,” Nanjing University, Nanjing, China, March 27, 2019.
- Atef Elsherbeni, “SAR and Temperature Rise in a Human Head due to Electromagnetic Radiation using the Finite Difference Time Domain Method,” Jiangsu University of Science and Technology, Nanjing, China, March 28, 2019.
- Atef Elsherbeni, “SAR and Temperature Rise in a Human Head due to Electromagnetic Radiation using the Finite Difference Time Domain Method,” Qufu normal University, Nanjing, China, March 28, 2019.
- Atef Elsherbeni, “Robots and Localization - RFID and Scanned Antenna Array,” Huanghuai University, Zhumadian, China, May 17, 2019.
- Atef Elsherbeni, “Robots and Localization - RFID and Scanned Antenna Array,” Wuyi University, Jiangmen, China; May 19, 2019.
- Atef Elsherbeni, “Accelerating the FDTD Algorithm on Multiple CPUs/GPUs with MATLAB’s Parallel Computing Toolbox,” Southwest University, Chengdu, China, June 10, 2019.
- Atef Elsherbeni, “Accelerating the FDTD Algorithm on Multiple CPUs/GPUs with MATLAB’s Parallel Computing Toolbox,” Tsinghua University, Beijing, China, June 13, 2019.
- Atef Elsherbeni, “Antennas, RFID and Computational Electromagnetic (ARC) Group Research Activities,” National Institute of Standards and Technology (NIST), Boulder, June 21, 2019.
- Atef Elsherbeni, “Antennas, RFID and Computational Electromagnetic (ARC) Group Research Activities with Emphasis on Antenna Arrays Design,” Lockheed martin, Lakewood, CO, August 26, 2019.
- Atef Elsherbeni, “The FDTD Algorithm on CPUs and GPUs with MATLAB’s Parallel Computing Toolbox,” King Abdulaziz University (KAU), Jeddah, Saudi Arabia, November 24, 2019.
- Atef Elsherbeni, “SAR and Temperature Rise in a Human Head due to EM Radiation,” Harbin Engineering University, Harbin, China, December 16, 2019.
- Atef Elsherbeni, “SAR and Temperature Rise in a Human Head due to EM Radiation,” American University in Cairo (AUC), Cairo, Egypt, December 30, 2019.
- Atef Elsherbeni, “SAR and Temperature Rise in a Human Head due to EM Radiation,” Arab Academy of Science and Technology, Cairo, Egypt, December 31, 2019.

2018

- Atef Elsherbeni, “The Finite Difference Time Domain Technique and its Antenna Applications,” Southwest University, Chengdu, China, January 8, 2018.



- Atef Elsherbeni, “The Finite Difference Time Domain Technique and its Antenna Applications,” Xi’An University, Xi’An, China, January 10, 2018.
- Atef Elsherbeni, “Body of Revolution FDTD Technique”, Jiangsu Normal University, Xuzhou, Jiangsu province, China, January 12, 2018.
- Atef Elsherbeni, “Isoflux Antenna Design for CubeSats”, International University of Sarajevo, Sarajevo Bosnia and Hersegovina, May 7, 2018.
- Atef Elsherbeni, “Some Recent Developments in Computational Electromagnetics using The Finite Difference Time Domain Method”, Tsinghua University, Beijing, China, August 2, 2018.
- Atef Elsherbeni, “SAR and Temperature Rise in a Human Head due to EM Radiation”, King Abdulaziz University (KAU), Jeddah, Saudi Arabia, November 18, 2018.
- Atef Elsherbeni, “SAR and Temperature Rise in a Human Head due to EM Radiation”, King Abdullah University for Science and Technology (KAUST), Saudi Arabia, November 19, 2018.
- Atef Elsherbeni, “RFID Systems and Applications”, King Abdullah University for Science and Technology (KAUST), Saudi Arabia, November 20, 2018.
- Atef Elsherbeni, “RFID Systems and Applications”, Arab Academy of Science and Technology, Cairo, Egypt, December 10, 2018.
- Atef Elsherbeni, “RFID Systems and Applications”, Zewail City of Science and technology, Cairo, Egypt, December 11, 2018.

2017

- Atef Elsherbeni, “Recent Advances in Computational Electromagnetics”, Jiangsu Normal University, Xuzhou, Jiangsu province, China, January 7, 2017.
- Atef Elsherbeni, “Electrical Engineering Department at Mines research Activities”, Co-Bank, Denver, Colorado, February 2017.
- Atef Elsherbeni, “Isoflux Antenna Design for CubeSats”, Jiangsu Normal University, Xuzhou, Jiangsu province, China, August 28, 2017.
- Atef Elsherbeni, “Recent Developments in Computational Electromagnetics,” Nanjing University, Nanjing, China, August 29, 2017.
- Atef Elsherbeni, “Recent Designs of Phased Array Antennas,” Harbin Engineering University, Harbin, China, August 30, 2017.
- Atef Elsherbeni, “Reflectarray Antennas: Theory, Designs, and Applications”, King Abdullah University for Science and Technology (KAUST), Saudi Arabia, December 22, 2017.
- Atef Elsherbeni, “Isoflux Antenna Design for CubeSats”, King Abdullah University for Science and Technology (KAUST), Saudi Arabia, December 22, 2017.
- Atef Elsherbeni, “FDTD Electromagnetics Simulations with Surface Impedance Boundary Conditions”, King Abdulaziz University (KAU), Jeddah, Saudi Arabia, December 23, 2017.

2016

- “Recent Developments in Computational Electromagnetics using Finite Difference Time Domain Method”, National University of Singapore, April 6, 2016.
- “Segmented Loop Antennas for GPS Communications”, the Institute for Infocomm Research (I²R), Singapore, April 5, 2016.
- “Recent Developments in Computational Electromagnetics using Finite Difference Time Domain Method,” NEMO 2016, Beijing, China, July 2016.
- “Recent Developments in Computational Electromagnetics,” The Computational Electromagnetics (CEM) Workshop, Sponsored by China National Physics and Mathematics Simulation Key Lab, Beijing, China, August 2016.
- “Recent Advances in FDTD Method for Electromagnetics,” Jiangsu Normal University, Xuzhou, Jiangsu province, China, August 2016.



2015

- “Electromagnetics and Antennas Research Activities at Colorado School of Mines,” Harbin Engineering University, Harbin, China, March 2015.
- “Electromagnetics and Antennas Research Activities at Colorado School of Mines,” Jiangsu Normal University, Xuzhou, Jiangsu province, China, March 2015.

2014

- “The FDTD Technique: From Simple Formulation to Efficient Simulations for Complex Electromagnetics and Antenna Problems,” Applied Math and Science Department, Colorado School of Mines, Golden, CO, Jan. 23, 2014.
- “An overview of recent developments in computational EM”, Antenna and Microwave Technology CLASTECH Symposium and Exhibition, Los Angeles, CA, October 24, 2014.
- “Reflect and Transmit Array Antennas for Space Applications”, National University of Singapore, September 2014.
- “The integration of the FDTD into the IMR Technique for large Scale Scattering Problems”, Institute of High Performance Computing, Singapore, September 2014.

2013

- “Recent Advances in Reflectarray and Transmitarray Antennas for Space Applications,” the Electrical Engineering and Computer Science Department at the University of Toledo on October 16, 2013.
- “The FDTD Technique: From Simple Formulation to Efficient Simulations for Complex Electromagnetics and Antenna Problems,” China-US Computational Electromagnetics and Applications Workshop, Harbin, China, Nov. 2013. (Co-Organizer of the Workshop)
- “The FDTD Technique: From Simple Formulation to Efficient Simulations for Complex Electromagnetics and Antenna Problems,” Computational Electromagnetics Workshop, Tsinghua University, Beijing, China, Nov. 2013.

2011

- “Antennas for Space Applications,” German University in Cairo, Cairo, Egypt, December 2011.
- “Recent Advances in Reflectarray Design,” National Authority on Remote Sensing and Space Science (NARSS), Cairo, Egypt, December 2011.
- “RFID Technology”, 38th Annual Conference of The Association of Egyptian American Scholars, Cairo, Egypt, December 2011.

2010

- “The Role of Computer Graphics Cards in Advancing Electromagnetics Education,” IEEE Section, Syracuse University, December 2010.
- “The Role of Computer Graphics Cards in Advancing Electromagnetics Education,” 2010 IEEE Asian-Pacific Conference on Applied Electromagnetics (APACE 2010), Port Dickson, Malaysia, November 2010

2009

- “RFID and Antenna Research at The University of Mississippi,” Tampere University of Technology, Finland, June 18, 2009
- “The Role of Video Cards in Enhancing Numerical Simulations for Electromagnetics Education,” State University of New York, New Paltz, NY, April 2009

2008

- “Computational Electromagnetics with Emphasis on Differential Equation Solution Methods for Antenna Design and the Evaluation Target’s Radar Cross-Section,” IEEE Section, Northern Illinois University, Chicago, IL, November 2008.
- “GPU Based FDTD Method with MATLAB Graphical Interface,” City University of Hong Kong, December 2007.

2005



- “Efficient Solutions of Electromagnetic Scattering by Large and Multiple Objects,” IEEE Section, Syracuse University, November 18, 2005.

2003

- “EM Analysis of Environmental Effects on Landmine Detection,” The University of Mississippi National Center for Acoustics (NCPA), August 13, 2003.

2001

- “Antenna Design Using the FDTD Technique,” The Electronic Research Institute, Cairo, Egypt, September 2001.

1997

- “Applications of FDTD in Electromagnetics and Microwaves,” Military Technical College, Cairo, Egypt, December 1997.
- “Visualization of Multimedia Technology in Teaching Electromagnetics and Microwaves,” IEEE Memphis Computer Chapter, Memphis, TN, May 19, 1997.
- “FDTD Analysis of Microwave and Millimeter Wave Networks and Microstrip printed Antennas,” Mississippi DoD EPSCoR Conference, Jackson, MS, January 1997.

1995

- “The Finite Difference Time Domain Technique: Analysis and Applications,” University of Southern Mississippi, December 1995.
- “Visualization Using Computer Software for Electromagnetic Waves,” The Arab Academy for Science and Technology, Cairo, Egypt, July 1995.
- “The Analysis of Microstrip Lines using Finite Difference Time Domain Technique,” The electronic Research Institute, Cairo, Egypt, 1995.
- “Techniques for the Scattering of Multiple Objects,” The electronic Research Institute, Cairo, Egypt, July 1995.
- “Multimedia and Visualization of Electromagnetic fields,” The Military Technical College, Cairo, Egypt, July 1995.
- “Recent Developments of Computerized Tools for Electromagnetic Education at the University of Mississippi,” 10th Compumag conference, Berlin, July 1995.

1993

- “Modeling of Composite Two-Dimensional Materials by Dielectric, Conducting and Impedance Cylinders,” 3rd Workshop on Soft and Hard Surfaces, Ann Arbor, Michigan, June 1993.

1992

- “Analysis of Two-Conductor Multi-Layer Microstrip Transmission Line with Dielectric Overlay and a Notch between the Strips,” Cairo University, Cairo, Egypt, December 1992.
- “Some Experience on Using Software in Teaching at the University of Mississippi,” Workshop on “Effective Integration of Computers and Software Tools in Education” organized by CAEME, Salt Lake City, Utah, August 1992.
- “Analysis and Design of Antenna Arrays,” CAEME workshop, IEEE AP/S Symposium, Chicago, July 1992
- Atef Z. Elsherbeni and Patrick Ginn, Arrays: Interactive Analysis of Antenna Arrays. Version 1 published in the Computer Applications in Engineering Education Journal (CAE), vol. 1, no. 1, pp. 109-117, 1992.

1991

- “Mapping of vector fields inside Wave Guides,” CAEME Workshop, IEEE AP/S Symposium, London, Ontario, June 1991.
- “Mapping of vector fields inside Wave Guides,” University of Manitoba, Winnipeg, Manitoba, Canada, April 1991.